5.08
Parent Training for Child Conduct Problems

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5.08.1 INTRODUCTION

Prior to 1965, most attempts to treat childhood behavior problems focused exclusively on the child. Approaches included outpatient play therapy and inpatient child therapy. Since the mid-1970s, however, there has been a shift in treatment philosophy for child conduct problems from an exclusive focus on the child to recognition of the primary social context in which the child lives-that is, the family. As a result, parent training (PT) has become an integral part of services for many childhood disorders including autism and developmental disabilities (Schreibman, Kaneko, & Koegel, 1991); academic, learning and language delays (Laski, Charlop, & Schreibman, 1988); externalizing problems such as attention deficit disorder (Anastopoulos, Barkley, & Sheldon, 1996); oppositional and conduct disorders (Forehand, Steffe, Furey, & Walley, 1983; Patterson, Chamberlain, & Reid, 1982; Webster-Stratton, Kolpacoff, & Hollinsworth, 1988); and internalizing disorders such as fears and anxiety disorders (Barrett, Dadds, & Rapee, 1993). PT is also widely used with abused and neglected children as a component of a multifaceted intervention (Lutzker, 1992), as well as for maritally distressed parents (Dadds, Schwartz, & Sanders, 1987) and for parents who are divorced (Grych & Finchman, 1992). This extensive empirical base supports the hypothesis that when parents are trained to implement behavior change strategies, there is a corresponding improvement in their parenting interactions, which in turn results in improvements in children's social and emotional adjustment.

PT is a generic term used herein to refer to forms of intervention for child behavior problems in which parents are trained to work with their children. In this approach parents are not only included in the therapeutic process, they are utilized as cotherapists working under the guidance of the therapist to invoke change in their child's behavior. The training focuses on altering parents' perceptions, attributions, affect, and parenting behaviors toward their children. The term "parent training" is used here in preference to other terms such as "family management training," "parent-child interactional training," or "functional family therapy" to more accurately reflect the fact that in PT it is the parents who are the targets of the treatment and prevention efforts. PT is an empirically supported, therapeutic process based on the twin assumptions that, since parents are the primary socializing agents in their children's lives, parenting practices are important-sometimes the critical determinants-in the development and maintenance of many maladaptive child behaviors and, more importantly, that positive parenting practices are the key to facilitating and maintaining positive changes in child behavior.

There are many versions of PT, but they all share several characteristics in common. First, it is the parents who are trained; there is no direct intervention with the children. Second, parents are taught to identify, observe and define behaviors they want to increase or decrease. Third, parents learn social learning principles including positive reinforcement (e.g., praise and incentive programs) and discipline strategies (e.g., ignoring, loss of privileges, time out). Fourth, they are taught these approaches by means of interactive discussion, modeling, role playing, videotape demonstrations, home assignments, and direct feedback.

A number of theories about the socialization of behavior and emotion have shaped the specific methods, goals, content, and therapeutic process of different PT programs. A parent's function may be formulated as a teacher, coach, model, relational partner, attachment figure, or proximal gatekeeper for the larger environmental conditions; and each shift in emphasis brings a somewhat different focus for PT. Moreover, as current theories of child psychopathology have become more developmental in perspective and ecological in scope, PT has drawn from and integrated a number of theoretical perspectives, from general theories of learning and development to specific research areas and agendas. The evolution of PT from an operant behavioral approach to a model which includes relational, affective, and even broader ecological factors has brought a broader theoretical base, one that incorporates multiple theoretical approaches.

5.08.1.1 General Theoretical Underpinnings

PT draws from and includes theories of learning, theories of therapeutic change, and theories of child social and emotional development. The theoretical mainstays of PT can be, and often have been, subsumed under three general areas: (i) social learning theory, which includes behavioral and cognitive-behavioral views; (ii) "relational theories" such as attachment and psychodynamic theories; and (iii) a family systems perspective which includes the parent-child and other familial relationships. In addition, extensive research in child development has provided PT programs with a framework of empirically-based models of normal and pathological child development.

5.08.1.2 Contributions from Social Learning Theory

Contemporary PT has its roots in applied behavior analysis, models of operant behavior (Baer, Wolf, & Risely, 1968), and social learning theory (Bandura, 1977). A key assumption is that children's behaviors are learned from their interactions with significant persons in their lives, particularly their parents. Child problem behaviors-be they internalizing problems, such as fears and anxieties, or externalizing problems, such as defiance and aggression-are thought to be maintained by environmental reinforcements. The focus of PT from this perspective is on changing maladaptive child behaviors by changing the environmental contingencies which maintain these problem behaviors. For example, to take an internalizing problem such as a social phobia or separation anxiety, research has suggested that family interactions play a role in the development and maintenance of these fears (Kendall, 1992); parents may inadvertently reward anxious behavior by their attention as well as by removing aversive stimuli such as household chores or permitting a child to stay home from school (King, Hamilton, & Ollendick, 1988).

Therefore, this approach emphasized the importance of parents as "behavior change agents" for their children (Patterson, 1982; Patterson, Cobb, & Ray, 1973; Wahler, 1976). Parents were taught specific parenting strategies such as child-directed play, praise and tangible reinforcement, and discipline approaches such as ignoring misbehavior, time out and response cost. These parenting behaviors and strategies helped parents avoid negative reinforcement traps and coercive interactions with their children (Patterson, 1982, pp. 27, 28) as well as positive reinforcement traps (Wahler, 1975) which were thought to lead to escalating child behavior problems. Likewise, this conceptualization has been particularly useful and relevant for child externalizing problems. Research has demonstrated that parents of antisocial children do engage in particular parenting practices which promote aggressive behavior (through attention and compliance to child coercive strategies) and suppress prosocial behavior (by ignoring or even providing aversive consequences) (Hinshaw & Anderson, 1996; Patterson, 1982, 1986).

Social learning theory (Bandura, 1977) posits that behavior is learned not only by experiencing the direct consequences of those behaviors, but also by observing similar behavior and its consequences. Thus, Bandura emphasized the importance of parents "modeling" appropriate social interactions for their children, since children learn by watching their parents interact (with each other and with others), and not just by their responses to the child's own behaviors. Behavioral models are particularly potent when they are persons of higher social status, such as parents, teachers, and older peers, and when their acts are perceived to be rewarded or accepted (Bandura, 1977). Again, the research supports this modeling theory in studies which have shown that children with high levels of fears and anxieties are more likely than nonfearful children to have anxious or fearful parents (Kendall, 1992), as well as studies showing that aggressive children are more likely than nonaggressive children to have parents who use aggressive discipline or who are antisocial themselves (Patterson, DeBaryshe, & Ramsey, 1989).

In accordance with this social learning model, then, PT programs are aimed at helping parents identify and isolate their children's prosocial (or appropriate) and maladaptive (or inappropriate) behaviors, change the reinforcement contingencies, and implement rewards for positive behavior and sanctions for negative behavior. The general purpose of PT from this perspective is to alter the interactions between parents and children so that prosocial behavior rather than coercive behavior is modeled and reinforced by parents (Kazdin, 1987). Social learning theory informs PT's methods as well as content, using live and videotape modeling, role play and rehearsal of new skills, home practice assignments, and direct reinforcement (social and tangible) of parents for their achievements during training.

5.08.1.3 Contributions from Cognitive Psychology

Other theoretical perspectives helped expand our understanding of not only the importance of training parents to change their behavior responses to children but also the importance of influencing parents' perceptions, affect, and cognitions about their children. Cognitive psychology, in particular, focuses on the meanings we make of life events, and how those meanings influence our motivation, behavior, and ability to change. Cognitive events such as attributional biases, self-efficacy beliefs, and negative self-statements influence the course of psychopathology as well as the ability to parent effectively. Bandura proposed that central to parents' ability to change their behavior is their belief about their own self-efficacy (Bandura, 1982)-that is, their belief about the degree to which they can be successful with their children. Attribution theory (Smith & O'Leary, 1995)

and learned helplessness theory (Abramson, Seligman, & Teasdale, 1978; Folkman & Lazarus, 1988; Seligman, 1975) are other cognitive theories that posit the importance of beliefs and expectations in influencing parents' interactions with their children.

These expanded theoretical perspectives led to a blending of cognitive and behavioral theories and a concomitant shift in PT known as the cognitive-social learning approach. The cognitive-social learning approach treats cognitions as covert behaviors, subject to the same laws of change as more overt behaviors, and hence appropriately examined, isolated, and differentially reinforced (Meichenbaum & Turk, 1987) as part of the PT process. For example, if parents perceive their children as more powerful than themselves, as motivated and able to hurt them, perhaps even predicting when their child is young that their child will become a juvenile delinquent, those parents are less likely to respond to their child's misbehavior in a positive and consistent manner. Furthermore, parents' negative expectations for a child may become a self-fulfilling prophesy, influencing the child's own self-perceptions and expectations. Parents are often unaware of how their beliefs about their own powerlessness relative to their child can undermine their parenting interactions-resulting in poor limit setting, withdrawal from conflict, lack of structure, and further loss of control. Out of this school of thought have come adjuncts to PT including training for parents in coping via self-statements, problem-solving techniques, stress management, and self-reinforcement strategies.

5.08.1.4 Contributions from Relational Theories

In the category of relational theories attachment theory and psychoanalytic theory are included because of their central concern with emotion, affective processes, and the quality of relationships. Although a more positive parent-child relationship is expected to result from improved parenting strategies, an articulated relational theory did not initially inform PT. Qualitative aspects of parent-child interactions were only indirectly acknowledged. For instance, even in those few behavioral programs which did include training for parents in child-directed play skills, the purpose of this training was to increase the reinforcing power of parental attention; improving relationships was merely a secondary benefit (Forehand & McMahon, 1981). However, as PT expanded beyond its operant focus, child-directed play therapy became a technique and a source of theory concerning the affective and relational aspects of parenting (Eyberg & Boggs, 1989), as separate from behavioral management. Within a relational focus, PT aims to increase parent-child bonding by teaching parents techniques for increasing their positive interactions with their child-as a goal in itself. The emphasis is on increased expression and communication of positive affect, including love, affection, acceptance, enjoyment, and empathy as well as increasing parents' pleasure in their children and enjoyment of play with them. Another aspect to PT that grows out of relational theory is training parents in how to respond to children's expression of emotions as well as how to manage their own emotions. This renewed interest in affective processes reflects a growing recognition from the research that a parent's emotional expression and regulation are likely to affect the quality of their children's emotional language, which in turn affects the quality of their social relationships and ability to self-regulate in the face of conflict.

5.08.1.5 Contributions from Family Systems Theory

Current PT programs have also been influenced by family systems theory. In this theoretical perspective, family factors are recognized as the larger context for parent-child interactions. From a family systems perspective, this means the focus of concern in PT is enlarged to include such factors as family roles, rules, and communication patterns, and those factors are conceptualized as family structures (Minuchin, 1974) and processes (Haley, 1976). A family systems perspective emphasizes the impact of these structures and processes on the parent--child relationship and behaviors. Inherent in the treatment of families from the systems perspective is an understanding of how family dysfunction (e.g., marital conflict) impacts both parent and child functioning, and PT targets not just parenting behaviors but family interaction patterns (including parent-child, marital, and sibling relationships), family perceptions of individual members, as well as parents' memories of their family of origin and what they learned from that experience.

5.08.1.6 Emerging Perspectives

More recently, in the early 1990s, functional contextualism (Biglan, 1993) has led to our understanding of how social environment—such as stressful life events, socioeconomic status, racism, lack of support systems-influence parents' ability to maintain behavior

change. At this point the influence of this perspective on PT programs is still slight, but therapists are beginning to consider factors such as these when designing programs for socio-economically deprived families and families experiencing considerable life stress.

5.08.2 CHILD CONDUCT PROBLEMS

Despite some evidence suggesting that PT may be a useful treatment for children's internalizing disorders (see Sanders, 1996 for review), this chapter focuses on PT as a treatment approach for young preschool and school-age children with oppositional defiant disorder (ODD) and conduct disorder (CD), defined generically in this paper as conduct problems. We have confined our review of PT to the treatment of conduct problems because there exists a large body of programmatic research regarding the etiology and treatment of conduct problems and because comparatively less is known about the causes of internalizing disorders. Conduct problems frequently co-occur with other disorders such as attention deficit disorder, learning disabilities, language delays, and internalizing problems such as anxiety and somatization. Moreover, children with conduct problems frequently come from families who are experiencing considerable marital discord, depression, and distress. What we know about PT as an intervention for children with conduct problems may provide a paradigm for other less well-researched childhood disorders, including internalizing disorders.

5.08.2.1 Prevalence

Childhood conduct problems are the most frequently occurring disorder in both clinic-referred and general populations (Quay, 1986). Results of epidemiological studies have indicated that the percentage of young children meeting the criteria for the clinical diagnoses of ODD and CD ranges from 7% to 25%, with the prevalence varying according to the population surveyed (Campbell, 1995; Landy & Peters, 1991; Richman, Stevenson, & Graham, 1982). Even for preschoolers, relatively high proportions of parents complain of noncompliance, limited self-control, aggression, and poor relations with siblings and peers (Richman et al., 1982). In a study involving over 400 high-risk families in Seattle, Washington, Webster-Stratton (1995) reported that more than 25% of children scored above the 90th percentile for aggressive behaviors as reported by their mothers. In a large-scale screening study of day-care attendees (2-4 years old) in rural Vermont, Crowther, Bond, and Rolf (1981) found that at least 20% of the children exhibited high frequencies of aggressive and disruptive behaviors, with the greatest severity observed among preschool boys. Boys are two to three times more likely than girls to manifest conduct problems (Quay, 1986).

"Externalizing" behavior problems are characterized by high rates of hyperactivity, aggression, impulsivity, defiance, and noncompliance (Campbell, 1995; Campbell & Ewing, 1990; Robins, 1981). The greatest stability in preschool child behavior problems occurs among externalizing problems in contrast to internalizing disorders, which are age-specific and usually but not always remit over the course of development (Fisher, Rolf, Hasazi, & Cummings, 1984). A variety of studies have shown high continuity between behavior problems in the early preschool years and conduct disorders in adolescence (Egeland, Kalkoske, Gottesman, & Erickson, 1990; Richman et al., 1982; Rose, Rose, & Feldman, 1989). Campbell's (1991) review of a series of longitudinal studies of hard-to-manage preschoolers reveals a surprising convergence of findings. At least 50% of preschool children with moderate to severe externalizing problems continued to show some degree of disturbance at school age, with boys doing more poorly than girls. Of those with continuing behavior problems, 67% met diagnostic criteria for attention deficit hyperactivity disorder (ADHD), ODD, or CD at age 9. Moreover, Eyberg (1992) points out that this percentage may be an underestimate, since many of the most dysfunctional families were lost to follow-up.

Developmental theorists have suggested that there may be two developmental pathways related to conduct disorders: the "early-onset" vs. "late-onset" pathways (Patterson et al., 1989). The hypothesized "early-onset" pathway begins formally with the emergence of aggressive and oppositional disorders (ODD) in the early preschool period, progresses to aggressive (e.g., fighting) and nonaggressive (e.g., lying and stealing) symptoms of conduct disorders in middle childhood, and then develops into the most serious symptoms by adolescence, including interpersonal violence and property violations (Lahey, Loeber, Quay, Frick, & Grimm, 1992). In addition, there is an expansion of the settings in which the problem behaviors occur, from home to daycare or preschool, then to school, and finally to the broader community. For "late-onset" (adolescent-onset) conduct disorders, the prognosis seems more favorable. Adolescents who are most likely to be chronically antisocial are those who first evidenced

symptoms of aggressive behaviors in the preschool years, followed by early-onset ODD or CD (White & Bailey, 1990). Children with early-onset ODD also account for a disproportionate share of delinquency in adolescence. Thus ODD is a sensitive predictor of subsequent CD, and the primary developmental pathway for serious conduct disorders in adolescence and adulthood appears to be established in the preschool period (Loeber, 1991).

The next section discusses theories regarding the etiology of conduct problems. These are important in terms of their implications for intervention, including PT.

5.08.2.2 Etiological Models

Theories regarding the causes of child conduct problems posit five different types of influence on child behavior: biological, attachment, family and parent-child interactions, sociocognitive, and environmental. Due to space limitations we will focus primarily on parental and familial models because of their clear implications for PT. However, it should be clear that by limiting our discussion of the biological, attachment, and sociocognitive models we do not mean these should be ignored and should not be enlisted when appropriate nor do we mean to imply that these are necessarily competing models. For instance, research indicates that biological and environmental factors are interrelated and transactional (Caspi & Moffitt, 1995). A more complete review of these models is available from the first author.

5.08.2.2.1 Biological model

Psychobiological research on child conduct disorders has lagged behind similar work on adult criminality and antisocial behavior, but is gaining recognition-particularly research concerning the temperamental, psychophysiological, and neurophysiological aspects of externalizing disorders. Still, many studies suffer from small or incompletely specified samples, lack of diagnostic specificity, and lack of longitudinal follow-up; there is a need for replication and cross-validation. The biological model argues that some abnormal aspect of the child's internal organization at the physiological, neurological, and/or neuropsychological level (which may be genetically transmitted) is at least partially responsible for the development of conduct problems. The most overt evidence for a biological component for children with ODD/CD includes the disproportion of boys to girls and the apparent heritability of antisocial traits, based on the high number of criminals in some families (Hutchings & Mednick, 1977). Adherents of this view have proceeded somewhat cautiously, lest they appear to be endorsing biological determinism. However, since the late 1980s a substantial body of research has been accumulating which supports the inclusion of biological factors in models of development and maintenance of conduct disorder (see Hinshaw & Anderson, 1996 for a review).

Biological explanations for antisocial behavior need not imply that an antisocial personality is biologically predetermined. Even biology is hypothesized to be subject to environmental impact. Biology in itself is only suggestive of a vulnerability to other risk factors (e.g., parental socialization influences) for antisocial behaviors. Furthermore, biological markers of antisocial behavior have thus far been isolated only for subsets of children with more extreme deficits, such as undersocialized aggressive conduct disorder, who are often doubly impaired with ADHD. We do not know what, if anything, biology has to contribute to our understanding of milder deficits. Lahey, Hart, Pliszka, Applegate, and McBurnett (1993) state clearly that investigation of biological variables such as neurotransmitters, brain imaging techniques, skin conductance, or hormonal influences does not imply that psychosocial factors have no role in the maintenance of childhood conduct problems. On the contrary, they postulate "that a socio-environmental event (e.g., abnormal infant experience) could be one of the causes of aggression, but that the effect of this experience on aggression is mediated by alterations in neurotransmitter activity" (Lahey et al., 1993, p. 142). Indeed, the amount of variance accounted for by biological factors appears to be relatively small. Factors such as family support, quality of parent management strategies and socioeconomic status appear to interact with the child's biology or temperament to influence outcome, again suggesting the mediating role of the child's microsystems.

The research findings regarding children with conduct problems who have such difficulties as low autonomic reactivity (Quay, 1993) have implications for how biological deficits may be amplified over time and for how parenting can exacerbate or minimize inherent deficits. For example, children with biological deficits are not as responsive to their parents' normal efforts to praise, reward, set limits, and impose negative consequences; they may even appear to their parents to be indifferent to their discipline attempts. This lack of responsiveness on the part of the child not only makes the child less reinforcing to the parent but also leads parents to feel the effects of their parenting approaches

are unpredictable. As parents continue to experience a lack of success in parenting, they develop a low sense of self-efficacy, become more inconsistent in their parenting responses and sometimes resort to increased use of spanking and harsh punishment.

This theory suggests the need for PT programs which help parents understand their children's biological deficits (their unresponsiveness to aversive stimuli and heightened interest in novelty), and support parents in their use of effective parenting approaches so that they can continue to be positive and provide consistent responses. Parents who are concerned that their child is not responsive to praise or appears not to care about consequences can learn that this apparent invulnerability is a coping response for dealing with negative feedback about his or her behavior. The data regarding autonomic underarousal theory suggests that these children will require over teaching (i.e., repeated learning trials) in order to learn to inhibit undesirable behaviors and to manage emotion. They will need consistent, clear, specific limit setting that utilizes simple language and concrete cues and reminders. Their parents will need to rely on tangible reinforcement and novel reward systems, rather than punishment, and will need to help their children anticipate possible consequences. The research regarding these children's possible language and reading delays suggests the need to train parents in ways to help their children with verbal skills such as self-talk management, problem solving, and communication, as well as reading skills.

5.08.2.2.2 Attachment model

Bowlby's (1980) observations of neglected infants introduced us to a new way of understanding children's emotional development. Both his method and thinking have led to attachment theory as a model for describing and accounting for the effects of parent-child relationships. Studies of attachment relationships have focused on mothers and infants; young school-age children have been studied much less frequently. Rarely has the research concerned itself with father/child attachment relationships. Specific research regarding the connections between children's attachment status and the development of conduct problems is very much in its infancy.

Since the late 1980s, methods of measuring attachment beyond toddlerhood have been developed, with two new attachment paradigms targeted for preschool and early primary age children (Cassidy & Marvin, 1992; Main & Cassidy, 1987). Several studies utilizing those measures of attachment with young children have found relationships between insecure attachment and child aggressive behaviors (Greenberg, Speltz, & DeKlyen, 1993). However, attachment status on its own probably does not directly relate to conduct disorder, nor to any specific psychological disorder. The differences between high- and low-risk samples suggest that secure attachment serves as a protective factor in the presence of other risk factors for conduct problems (Dishion, French, & Patterson, 1995).

Finally, in postulating an association between early attachment and psychopathology, one must exercise caution. For attachment status interacts not only with parenting practices, but also emerges as a result of reciprocal interactions with other risk factors such as child biology and temperament, parent psychopathology and social stress. For example, an interaction of biology and attachment may operate as follows: for a certain subset of children with early-onset conduct problems, biology-that is, a difficult temperament-may underlie their difficulties in social learning and communication, both of which may influence mutual acceptance, leading to negative affect and attachment difficulties. In addition, parental depression has been shown to be linked to child attachment status (Radke-Yarrow, 1991; Speiker & Booth, 1988). Furthermore, both attachment and depression are related to parents' parenting skills. For example, in one study both insecurely attached mothers and depressed mothers were likely to retreat when their attempts to limit set with their children were met with resistance; they also showed more inappropriate use of affection. Finally, severe maternal depression, like other severe stressors, appears to be related to disorganized attachment status (Teti, Gelfand, & Messinger, 1995). The concept of internal working models is helpful for PT programs because it focuses attention on the quality of parent-child relationships and the need for security and predictability in relationships. In the case of the insecurely attached child and parent, the model suggests the need for a more complex PT program involving a focus on relationship building, communications skills, cognitive techniques, and affect management skills. Along with parenting techniques, the insecurely attached parent will need to learn to control negative affect in the parent-child relationship and to communicate positive emotion such as empathy; beyond that, the parent may need help developing empathy and positive feelings for the child. PT can work with parents' perceptions of their child so that parents can recognize how their responses to their child's behavior may in a

large part be based on their own past relationships with their parents and not on the child himself (Stroufe & Fleeson, 1986). The therapist's frequent articulation and expression of empathy during training for the parent and child as well as education about child development-specifically, the needs of difficult children-can help parents to understand their child's point of view. This change in perspective can ultimately lead to change in the parents' internal working model of the child, which can then lead to changes in the internal working model of the relationship for both the parent and child. PT for the insecurely attached child must also involve training the parent in attachment-promoting interactions, such as "child-directed play," a method of play which involves listening, following the child's lead, describing and reflecting on the child's actions, and praising and encouraging the child's ideas and behaviors. Daily child-directed play sessions influence the child's working model of the parent as well as the parent's working model of the child. Finally, the attachment perspective on PT suggests that the therapist's role is to provide a secure base for parents who are exploring new perspectives and models of relationships. By being consistent, predictable, empathic, accepting, and reinforcing, the therapist can provide the parent with a new working model, namely that of a supportive relationship.

5.08.2.2.3 Family functioning

Research findings have provided the impetus to expand our models to include other family and contextual variables, reflecting a broader systems view of family influences on children's behavior. Clear connections have been established between parental psychopathology (including antisocial behavior and depression), marital conflict and parenting interactions and child conduct problems.

(i) Antisocial behavior

Intergenerational linkages with respect to criminal behavior have been established for some time (Frick & Jackson, 1993), and there is considerable evidence associating certain types of parental psychopathology with childhood aggression and conduct problems (Patterson, 1982). Specifically, depression in the mother, alcoholism and substance abuse in the father (Frick et al., 1992), and antisocial and aggressive behavior in either the mother or the father (Faraone, Biederman, Keenan, & Tsuang, 1991; Frick, Kuper, Silverthorn, & Cotter, 1995) have been implicated as risk factors. An association has also been found between children's aggression and their parents' aggression at the same age (Huesmann, Eron, Lefkowitz, & Walder, 1984). In a prospective study of 171 clinic boys, parental antisocial personality disorder (APD) was a significant correlate of conduct problems, but the interaction of parental APD and the boys' verbal intelligence predicted the persistence of conduct problems over time (Lahey, Loeber, Hart, & Frick, 1995).

(ii) Depression

Depression-maternal depression in particular-has received a great deal of attention in terms of its influence on child adjustment. Children of depressed parents have been shown to be at increased risk for conduct problems (Downey & Coyne, 1990). Clinic mothers of children with conduct problems consistently rate themselves as more depressed (on the Beck Depression Inventory) than nonclinic mothers of typically developing children, suggesting a relationship between maternal depression and reported child behavior problems (Griest & Wells, 1983; Webster-Stratton & Hammond, 1988). Studies have suggested that depressed mothers make more negative appraisals of their children's behaviors (Schaughency & Lahey, 1985) than their spouses or nondepressed mothers (Webster-Stratton & Hammond, 1988). However, research (using direct observation) evaluating the relationship between depressed and nondepressed mothers' parenting behavior and their children's behavior has yielded conflicting conclusions. Some researchers (Hops et al., 1987; Rickard, Forehand, Wells, Griest, & McMahon, 1981) have found that depressed mothers of clinic-referred children use not more but fewer commands and criticisms than nondepressed mothers, while others have found maternal depression to be related to increased criticisms, spankings, and unsupportive or inconsistent parenting (Cunningham, Bennes, & Siegel, 1988; Webster-Stratton & Hammond, 1988). Still others have found no relationship between maternal depression and parenting behavior (Rogers & Forehand, 1983). Furthermore, the possible linkage between fathers' depression, parenting behaviors, and child conduct problems has not been explored in the research. Finally, it is important to recognize that depression is associated with other stress variables such as poverty, marital distress, and negative life events, making it difficult to determine what effects are attributable to depression *per se*.

The relationship between maternal depression and conduct problems has been conceptualized as follows: maternal depression results

in negative appraisals of the child's behavior and contributes to a mother's negative responses (increased irritability, hostility, and punishment) to her child's misbehavior (Patterson, 1982). It has also been theorized that in response to an increase in maternal criticisms, the child displays an increase in noncompliance and other misbehaviors (McMahon & Forehand, 1984; Webster-Stratton & Hammond, 1988). These child misbehaviors further exacerbate the mother's depression, negative appraisals of the child and negative parenting behavior. Not only does the mother reinforce the child's misbehavior (through her negative attention), but the child learns more hostile and irritable behaviors through modeling the behavior of the depressed mother (Downey & Coyne, 1990). It has also been argued that depression contributes to the "coercive" cycle by resulting in decreased maternal attention for positive behaviors, decreased positive reinforcement, and lack of consistent supervision. In other words, depression results in the mother being emotionally unavailable and inattentive to the child. Thus maternal depression may indirectly lead to conduct problems as a result of negative reinforcement of inappropriate child behaviors, inconsistent limit setting, and emotional unavailability.

However, the association between maternal depression and child conduct problems is not adequate justification for concluding that depression "causes" child conduct problems. An alternative model could be postulated reversing the directionality-that is, the child's difficult and unpredictable negative behaviors are minimally reinforcing the mother's efforts, resulting in inconsistent and negative parenting responses; as the mother fails in her efforts to control the child's behavior, she becomes increasingly depressed. The research finding that maternal depression can improve with PT programs suggests that there is a three-way reciprocal interaction between the child's conduct problems, negative parenting style, and maternal depression. And as noted earlier it is highly probable that depression is linked to attachment status and that these two factors operate in some kind of synergy.

(iii) Marital conflict

In addition to depression in the parents, another family characteristic that has been found associated with the development of conduct problems is interparental conflict and divorce (Kazdin, 1987). In particular, boys appear to be more apt to show significant increases in antisocial behavior following divorce. However, some single parents and their children appear to do relatively well over time postseparation, whereas others are chronically depressed and report increased stress levels. Once researchers began to differentiate between parental divorce, separation, and conflict, they began to understand that it was not divorce *per se* that was the critical factor in the child's subsequent behavior and socioemotional development, but rather the degree and intensity of parental conflict (O'Leary & Emery, 1982). For example, children whose parents divorce but whose homes are conflict-free are less likely to have problems than children whose parents stay together but experience a great deal of conflict (McCord, McCord, & Thurber, 1962). Children whose parents divorce and continue to have conflict have more problems than children whose parents experience conflict-free divorce (Hetherington, Cox, & Cox, 1982) Moreover, intact families who seek help for child behavior problems commonly present high levels of marital strife (Johnson & Lovitz, 1974; Oltmanns, Broderick, & O'Leary, 1977). In Webster-Stratton's studies of over 400 families with conduct problem children, 75% of the parents reported having been divorced at least once and/or described their current marriage as distressed; half of the married couples reported experiences with spouse abuse and violence. (Webster-Stratton, 1996b). These findings highlight the role of parents' marital conflict and spousal aggression as key factors influencing children's behavior problems. This is corroborated by the earlier work of Rutter et al. (1974), who reported that marriages characterized by tension and hostility were more closely associated with children's behavior disturbances than marriages characterized as apathetic and indifferent.

The role played by marital conflict, as well as parents' expression of negative affect, is further emphasized in studies of couples with children in laboratory situations requiring interpersonal negotiation or conflict resolution (Grych & Fincham, 1990). Studies suggest that factors such as children's exposure to marital conflict (Grych & Fincham, 1990; Porter & O'Leary, 1980), spousal physical aggression (Jouriles et al., 1991; Jouriles, Murphy, & O'Leary, 1989), and child-rearing disagreements (Dadds et al., 1987) account for variance beyond that of general marital stress in a control sample. Katz and Gottman (1994) found an association between high levels of "mutual contempt" or belligerence in couples' relationships and high levels of anger, physical aggression, and noncompliance in the children of those couples. Cummings and his colleagues have demonstrated that exposure to verbal anger and

violence between adults is associated with anger and physical aggression in children (J. S. Cummings, Pellegrinia, Notarius, & E. M. Cummings, 1989). When children become sensitized to conflict as a result of repeated exposure to their parents' fights, they are more prone to emotional and behavioral dysregulation (i.e., greater distress and anger) (Cummings & Zahn-Waxler, 1992). These studies indicate the importance of moving beyond the study of individual risk factors (such as marital dissatisfaction and conflict) to the study of risk mechanisms-that is, the underlying processes that cause the risk factor to lead to conduct problems. The important questions then become: which aspect of conflict carries the risk? and, can it be mediated by an affectionate relationship between parent and child or by enlightened parenting?

However, like depression, marital variables appear to interact reciprocally in complex ways with other family and biological factors. For example, the effects of marital conflict and hostility on conduct problems appear to be mediated by the quality of parenting and degree of parental availability (Cummings, Simpson, & Wilson, 1993). Furthermore, Lahey et al. (1988) discovered that the effects of divorce on conduct problems were almost entirely related to parental diagnosis of antisocial personality disorder. Rutter (1986) has called attention to the relationship between marital discord and parental depression, and the possible causal role of marital discord in child behavioral outcomes. One possible hypothesis is that parents' depression affects their children by influencing marital functioning (increasing marital distress); marital functioning, in turn, affects parenting behaviors and parent-child interactions. An alternative hypothesis is that marital distress increases the likelihood of ineffective parenting; this contributes to child conduct problems, which in turn contribute to parental depression and further marital distress.

Certainly, the data suggest that parental depression covaries with marital distress and anger (Hay, Zahn-Waxler, Cummings, & Iannotti, 1992). Both overt and covert anger between parents are more frequent in homes of depressed parents. Depressed mothers have been shown to have more difficulty resolving conflicts than nondepressed mothers (Kochansaka, Kuczynski, Radke-Yarrow, & Welsh, 1987). Instead of attempting to reach compromises as a means of ending conflicts, depressed mothers have been reported to withdraw. However, impaired conflict resolution skills are not limited to the depressed mother. High levels of negative affect and hostility in mothers or fathers certainly can disrupt a couple's ability to resolve conflicts. Moreover, it is further hypothesized that a couple's chronic failure to resolve conflicts leads to increasing negative affect in both parents, which may well contribute to escalating anger in parenting as well as marital interactions. In turn, children who are repeatedly exposed to their parents' negative affect and inability to resolve issues are said to be sensitized, whereby their negative reactions are intensified (E. M. Cummings & Davies, 1994).

A number of investigators are postulating that marital distress (conflict, hostility, etc.) is the primary mediator in the transmission of conduct problems, rather than depression *per se* (Cox, Puckering, Pound, & Mills, 1987). On the basis of their extensive review of the literature on children with depressed parents, Downey and Coyne (1990, p. 68) concluded that "marital discord is a viable alternative explanation for the general adjustment difficulties of children with a depressed parent" (see also Cummings & Davies, 1994). Nonetheless, the precise mechanisms underlying the relationship between marital conflict, depression, parenting, and child adjustment have been little investigated and are poorly understood. This is partially due to the fact that research has consisted largely of global self-report measures of marital satisfaction (or of depression) rather than measures of specific areas of disagreement and close observation of communication and affect. The prediction of child outcomes may be improved substantially by greater specification of how conflict is expressed within families. In a study of 120 families involving detailed observation of marital communication and problem-solving as well as observation of children's interactions with a best friend, Webster-Stratton (1996b) reported a correlation between, on the one hand, high levels of collaboration, engagement, and positive communication in couples and, on the other hand, lower levels of child noncompliance and externalizing problems at home, as well as a correlation between higher levels of positive social skills and conflict management skills and lower levels of negative interactions with peers. Alternatively, negative marital communication, low levels of communication, and poor parental problem-solving between couples were correlated with children's conduct problems at home and their poor conflict management skills with peers. These data provide some support for the notion that a couple's communication patterns in general-and their conflict-resolution style in particular-may be a key variable in the development of their child's conduct problems

and peer relationships. This dovetails with the work of Cummings and colleagues (Cummings, Ballard, El-Sheikh, & Lake, 1991; Cummings & Davies, 1994), who found that helping families resolve their conflicts and providing children with explanations of their conflicts (i.e., absolving children from any blame) is helpful for children's emotional adjustment. They conclude that parents' successful resolution of conflicts results in a significant reduction in their children's anger and distress.

(iv) Parenting interactions

Parenting interactions are clearly the most well-researched and most important proximal cause of conduct problems. Research has indicated that parents of children diagnosed as ODD/CD lack certain fundamental parenting or behavior management skills. For example, those parents have been reported to exhibit fewer positive behaviors, to be more violent and critical in their use of discipline, to be more permissive, erratic, and inconsistent, to be more likely to fail to monitor or supervise their children's behaviors, and to be more likely to reinforce inappropriate behaviors and to ignore or punish prosocial behaviors (Patterson, 1982). The most influential developmental model for describing the family dynamics that underlie early antisocial behavior is Patterson's theory of the "coercive process" (Patterson, 1982), a process whereby children learn to escape or avoid parental criticism by escalating their negative behaviors, which in turn leads to increasingly aversive parent interactions. These negative responses, in turn, directly reinforce the child's deviant behaviors. Such mutual training in aversive responding intensifies both the child's aggressive behavior and the parents' hostile, nonresponsive behavior. These findings point also to the importance of the affective nature of the parent-child relationship. There is considerable evidence that a warm, positive bond between parent and child leads to more positive communication and parenting strategies and a more socially competent child (Baumrind, 1971).

Research on family socialization related to aggression increasingly recognizes the bi-directionality of child and parent behavior (Lytton, 1990). It is conceivable that negative parenting behavior is in part a reaction to difficult, oppositional, aggressive child behavior. In a study by Anderson, Lytton, and Romney (1986), mothers of boys with CD were compared with another group of mothers interacting with their own sons, with another boy who had a diagnosis of CD, and with a boy who had no diagnosis of CD. Mothers in both groups were more negative when interacting with the boys with CD, supporting the child-to-parent model. However, mothers of sons with CD were the most negative, suggesting that a history of negative interactions plays an important role (Anderson et al., 1986). The most conclusive evidence for the causal role of parenting interactions in promoting aggressive behavior arises from the research on PT interventions designed to decrease negative parenting behavior. Randomized studies have consistently shown that the risk for conduct problems decreases in groups of parents who received training in more effective parenting skills. These studies will be reviewed in a subsequent section of this paper.

This research regarding family functioning and parent-child interactions argues for parent training programs which attend not only to parenting skills but also to the other interpersonal and relational difficulties of family members. While positive parenting may buffer some of the effects of marital conflict, antisocial behavior, and depression, it would seem logical that if the intervention could also address parental psychopathology and reduce marital conflict, then there might be a greater likelihood for longer-lasting results from intervention.

5.08.2.2.4 Sociocognitive model

One way in which biological and family factors may exert effects on children's behavior problems is through the child's perceptions and evaluations of his or her social circumstances. The seminal work of Dodge and his colleagues has been extraordinarily helpful in suggesting ways in which children process and encode their social experiences (Crick & Dodge, 1994). A series of studies has revealed that aggressive children display deficits in social problem-solving skills (Asarnov & Callan, 1985), define problems in hostile ways, seek less information, generate fewer alternative solutions to social problems, and anticipate fewer consequences for aggression (Rubin & Krasnor, 1986; Slaby & Guerra, 1988). Aggressive behavior in children is correlated with their low empathy for others across a wide age range (Feshbach, 1989). It has also been suggested that children with conduct disorders distort social cues during peer interactions (Milich & Dodge, 1984), including attributing hostile intent to neutral situations. Aggressive children search for fewer cues or facts (i.e., they underutilize cues) when determining another's intentions (Dodge & Newman, 1981) and focus more on aggressive cues (Goutz, 1981). There is also a suggestion in the literature that attributional distortions and

underutilization of cues pertain specifically to the subgroup of aggressive children with comorbid ADHD (Milich & Dodge, 1984). It is theorized that the impulsive cognitive style of these children limits their scanning of pertinent social cues before responding, so that they have difficulty perceiving or understanding another person's point of view and are unable to interpret interpersonal situations accurately. This would explain both their lack of social competence and their antisocial behavior. Negative exchanges with peers or with parents then contribute to rejection, further negative responses, and further negative attributions.

These findings argue for the need for PT programs to include ways that parents can teach their children more appropriate social skills as well as how to problem-solve, to control angry responses, and to anticipate negative consequences of aggression. They need to help their children learn to reframe negative appraisals, to detect and express their feelings appropriately, and to learn to take the perspective of another-i.e., develop empathy skills. Parents also need help finding ways to foster more positive peer relationships for their children, such as by inviting friends over and setting up structured home activities, by enrolling them in appropriate community programs, and so forth. These data also suggest the need for PT to be combined with child training (CT), a process whereby children are directly trained in social skills and problem-solving by teachers, school counselors, and parents.

5.08.2.2.5 Environmental model

(i) Insularity and lack of support

Parents' relationships with others outside the family have also been linked to child conduct problems. Studies have assessed both the quantity and quality of maternal contacts outside the home in clinic-referred families of children with conduct problems. Wahler (1980) has used the term "insular," defined as "a specific pattern of social contacts within the community that are characterized by a high level of negatively perceived social interchanges with relatives and/or helping agency representatives and by a low level of positively perceived supported interchanges with friends" (Wahler & Dumas, 1984), to characterize a subgroup of mothers of children with conduct problems. These mothers have been observed to be more aversive and use more aversive consequences with their children than "noninsular" mothers (Webster-Stratton, 1985a, 1985b). Wahler found that on days when mothers reported a high number of contacts with friends (days we might characterize as "noninsular"), maternal aversive behavior and oppositional child behavior was consistently lower than on days when the number of contacts with friends was low (Wahler, 1980).

"Insular" families feel isolated not only from other parents in their communities, but also from their children's schools. They report frequent negative encounters with teachers concerning their children's behavior problems. Such encounters only add to parents' feelings of incompetence, their sense of helplessness regarding appropriate strategies to solve the problems, and their alienation from the school. Parents' inability to collaborate successfully with teachers (and thereby to reinforce them) contributes to teachers' perceptions of parents as uninterested or uncaring in regard to their children's problems. Such blaming attitudes on the part of teachers further escalates parents' sense of isolation and stigmatization regarding their child's problems. The child, in turn, is constantly observing his or her parents' mounting frustration and inability to communicate, as well as his or her teachers' lack of commitment to his family and his learning. This spiraling pattern of child negative behavior, parent demoralization and withdrawal, and teacher reactivity disrupts the connection between home and school and produces a dissonance between the socialization activities of the school and home, further contributing to the child's disengagement from the teacher and from school, and making eventual school drop out a likelihood.

(ii) Socioeconomic disadvantage

Isolation covaries with other important environmental factors that adversely affect family functioning, including economic disadvantage and an aggregate of related risk factors: unemployment, perceived stress, low education, and number of stressful life events. These have been shown to have negative effects on parenting, including the development of abusive disciplinary practices, and on child behavior, including early-onset conduct problems (Hawkins, Catalano, & Miller, 1992; Kazdin & Kolko, 1986; Rutter & Giller, 1983). Low-income parents are more at risk than are middle-income parents for high levels of psychological stress (Gecas, 1979), "power assertive" (i.e., coercive) discipline strategies (Daro, 1988; Trickett, Aber, Carlson, & Cicchetti, 1991), and a tendency to rationalize as legitimate even inappropriate parenting decisions (Hoffman, 1984). It has been argued that "negative parenting behavior is the primary pathway through which poverty

undermines children's socioemotional functioning" (McLoyd, 1990). Clearly, child abuse occurs at all income levels; however, there is a higher incidence of physical abuse in families below the poverty line (Straus & Gelles, 1986), even when reporting bias is taken into account. Offord and colleagues found that low income was one of the most significant risk factors for conduct disorder, but that it had its effect on young children, not on adolescents (Offord, Alder, & Boyle, 1986). Moreover, they showed that rates of conduct disorder were significantly higher for children from low-income welfare families than for children from low-income nonwelfare families (Offord, Boyle, & Szatmari, 1987).

Families of children with conduct problems report major life stressors at a rate two to four times greater than families with "normal" children (Webster-Stratton, 1990b). Moreover, parents of children with conduct problems indicate that they experience more day-to-day difficulties than nonclinic families. An accumulation of minor but chronic day-to-day stressors appears to disrupt parenting behaviors and leads to increased rates of coercive behavior and irritability in parents' interactions with their children (Forgatch, Patterson, & Skinner, 1988). Additionally, parents who are depressed, stressed, or demoralized are less likely to be able to provide the cognitive stimulation, emotional support, and social learning necessary to foster a child's positive behavior. Wahler and Sansbury (1990) proposed that highly stressed mothers are less able to screen out extraneous information (e.g., negative interchanges with neighbors or spouse), causing them to react inconsistently or indiscriminately to their children's behavior.

A key issue is whether these environmental factors directly contribute to child behavior problems or whether their effects are mediated by variables such as parenting skills. A synthesis by Capaldi and Patterson (1994) examined a wide array of factors for their predictive relationships to conduct disorders, testing for direct and indirect effects. They found that unemployment, low socioeconomic status, multiple transitions, and high levels of family adversity were related to early-onset conduct problems, but not to late-onset; however, the relationship was less strong when parenting variables were taken into account. The direct effects of low socioeconomic status, in particular, were erased when parenting variables were included; the roles of family transitions, stress, and unemployment also appeared to be indirect. They proposed that environmental variables were related to conduct disorders in a "chain reaction" fashion, whereby unemployment, for example, increased the family stress and the numbers of family transitions, which in turn decreased parental involvement and monitoring and increased the amount of "coercive" parenting. In another study, it was shown that family variables served as a protective factor against risk incurred by high-frequency encounters with significant violence in the neighborhood (Richters & Martinez, 1993). Thus it would seem that the effects of environmental factors on conduct problems are primarily indirect, not direct. However, this is not to discount their importance in explaining the development of conduct problems or their potential impact on parents' ability to sustain consistent and positive parenting.

Again, we see the powerful buffering effects of parenting even in situations of poverty and high levels of stress. But these data also seem to suggest that PT programs which help parents cope with environmental stressors will be more effective and far reaching.

This discussion of etiology relating to conduct problems is concluded by arguing for a complex theoretical model which considers the strong likelihood of transactional, reciprocal relationships among the biological, psychological, familial, sociocognitive, and environmental factors influencing child behavior. In all likelihood, antisocial behavior is not the sum of a certain number of risk factors, but the result of the interaction of multiple risk factors (Hinshaw & Anderson, 1996). Indeed some variables, for example, depression, may be consequences rather than precursors of conduct problems. Furthermore, the interplay of risk is particularly potent for "early-onset" conduct disorder, the course of which leads to more serious delinquency (Quay, 1986). Such a complex model will necessitate a family intervention which takes into consideration all of these intertwining factors.

5.08.3 DESCRIPTION OF INTERVENTION PROCEDURES AND PROPOSED MECHANISMS OF CHANGE

This review, emphasizes interventions geared towards younger preschool and school-aged children (as opposed to adolescents) because of the emerging evidence that children who begin antisocial behavior early are at significantly greater risk than those who become antisocial later, both for chronic offending during adolescence and for careers as antisocial adults (Patterson et al., 1989). The following discussion highlights several PT programs which were selected on the basis of their widespread availability, detailed descriptions of training

procedures, and extensive evaluation of both the short-term and long-term effectiveness of the intervention.

The most highly influential PT program was developed by Patterson, Reid, and their colleagues at the Oregon Social Learning Center (Patterson et al., 1982; Patterson, Reid, Jones, & Conger, 1975). Spanning two decades of research with more than 200 families, their work provides an exemplary model for outcome research with conduct-problem children. Although directed toward parents of preadolescent and adolescent children who were engaged in overt conduct disorders, their program will be described here because it has provided the foundation for numerous other PT programs.

The program starts with having parents read a programmed text, either *Living with children* (Patterson, 1976) or *Families* (Patterson, 1975). Afterwards, they complete a test on the reading material. The therapist then works with each parent individually in a step-by-step approach wherein each newly learned skill forms the foundation for the next new skill. Five behavior management practices form the core content of the program. First, parents are taught to pinpoint the problem behaviors of concern and to track them at home (e.g., compliance versus noncompliance). Second, they are taught how to use social and tangible reinforcement techniques (e.g., praise, point systems, privileges, treats) and to shift from tangible to social reinforcers over time. Third, they are taught discipline procedures: 5-minute time-outs, short-term privilege removal, response cost, and work chores. Fourth, they are taught to "monitor'-that is, to provide close supervision for their children even when the children are away from home. This involves parents knowing where their children are at all times, what they are doing, and when they will be home. In the final phase of treatment, parents are taught problem-solving and negotiation strategies and become increasingly responsible for designing their own programs. The treatment content has been described in a manual by Patterson (1975) and elaborated upon by Reid (1987).

Like all PT programs, this intervention is based on a model which posits the primacy of ineffective parenting skills in the development of conduct problems: parents inadvertently teach their children noncompliance and aggression by modeling and reinforcing those behaviors in their daily interactions with their children. Here, the focus of intervention is the particular parent behaviors which support the child's negative behaviors. For example, instead of backing down (and rewarding) their child's coercive response to commands, or using harsh punitive parenting to gain compliance, parents are taught to follow through with commands in a reasonable and consistent manner. Instead of ignoring prosocial efforts and attending to negative behaviors, they are taught to reward appropriate behavior that they had hitherto overlooked.

Another influential PT program was developed originally by Hanf (1970) at the University of Oregon Medical School and later modified and evaluated extensively by McMahon and Forehand (1984). It was designed to treat noncompliance in young children, ages 3-8 years. As described by Forehand and McMahon (1981) in their book, *Helping the noncompliant child,* the first phase of this comprehensive PT program involves teaching parents how to play with their children in a nondirective way and how to identify and reward children's prosocial behaviors through praise and attention. The objective is for parents to learn to break the coercive cycle by increasing their social rewards and attention for positive behaviors and reducing their commands, questions, and criticisms. Parents also learn to use social and tangible rewards for child compliance and to ignore inappropriate behaviors. The second phase of the program involves teaching parents how to give direct commands in such a way as to gain more compliance and how to use 3-minute time-outs for noncompliance. Progression to each new skill in the treatment program is contingent on the parent's achieving an acceptable degree of competence in the previously presented skill. The program is conducted in a clinic setting where the therapist works with individual parents and children together. Treatment methods include role-playing, modeling, and coaching. The clinic utilizes a playroom equipped with one-way mirrors for observation and "bug-in-the-ear" devices through which the therapist can prompt and give feedback to parents while they play with their child. Homework is assigned in the form of daily 10-minute play sessions with the child using the strategies learned in the clinic.

In this intervention the focus is on the reinforcement value of parental attention. Parents are taught to use "descriptive commenting" with appropriate behaviors-that is, to describe their children's behavior when they are acting in appropriate, positive ways-and to praise those behaviors. Parental attention reinforces and thus promotes the replacement behaviors, the positive behaviors which serve to replace the negative behaviors. Only after mastering the use of positive attention are parents taught discipline techniques to limit negative behavior. Reorienting the pattern of parent-child interactions from negative to

positive reinforcement is presumed to interrupt the overlearned negative cycles in which many parents of noncompliant children find themselves, and which only promote further noncompliance.

The emphasis of this parent training (Hanf, 1970) on the relational aspects is also found in the intervention developed by Eyberg (1988) called "parent-child interaction therapy" (Hembree-Kigin & McNeil, 1995). While the emphasis on behavior management is maintained, the skills for child-directed play are elaborated in great detail, composed of "DRIP skills": describe, reflect, imitate, praise. Eyberg (1988) presents this program as an integration of traditional play skill values and current behavioral thinking about child management (Eyberg & Boggs, 1989). It is felt that parents' nondirective play with their children improves children's frustration tolerance, helps reduce the anger level of oppositional children, and offers more opportunities for prosocial behavior to occur (Hembree-Kigin & McNeil, 1995). Moreover, engaging in play with their children helps parents recognize their children's positive qualities. As parents learn nondirective play skills, they learn how to respond in a sensitive and genuine manner, how to relate to their child's level of development, and how to stimulate their learning. The primary goal of this training is to strengthen attachment and establish a warm, loving relationship between the parent and child.

Another example of a PT program for young children with conduct problems was developed by Webster-Stratton (1981b, 1982a, 1982b, 1984). Based on the early theoretical work of Patterson (1975) and Hanf (1970) regarding key parenting and relationship skills and behavioral principles to be learned in order to reduce conduct problems, the program utilizes videotape modeling methods. The content of the BASIC program incorporates Patterson's (1982) nonviolent discipline components concerning time-out, logical and natural consequences, and monitoring, components of Hanf's (1970) "child-directed play" approaches and the strategic use of differential-attention, encouragement and praise, and effective use of commands. This content has been embedded in a relational framework including parent group support, mutual problem-solving, self-management, and a collaborative relationship with the therapist. This approach is designed to promote parental self-efficacy and engagement with the program and to reduce parental resistance and drop-out (Webster-Stratton & Hancock, in press). Parents are taught to examine and alter the irrational thinking which derails their implementation of effective parenting. The ADVANCE PT program includes content on problem-solving, communication (D'Zurilla & Nezu, 1982; Spivak, Platt, & Shure, 1976), and self-control techniques. In 1990, another new program was developed, entitled *Supporting your child's education*, to address risk factors related to children's poor academic readiness and weak home/school connection (Webster-Stratton, 1992b). In this program, parents learn how to prepare their preschool children so they can be successful in school. (Webster-Stratton and colleagues have developed a videotape program for teachers based on the same principles; teachers are trained in strategies for managing classroom behavior and for working collaboratively with parents.)

This program of research has been concerned with methods of presenting the parenting program-that is, developing the most cost-effective, widely applicable, and sustaining methods for training parents. Based on Bandura's (1982) modeling theory, the program utilizes videotape-modeling methods. The series of 10 videotape programs of modeled parenting skills (250 vignettes, each of which lasts approximately 1-2 minutes) are shown by a therapist to groups of parents (8-12 parents per group) in 13 sessions (26 hours). The vignettes show parent models in natural situations (unrehearsed) with their children "doing it right" and "doing it wrong" in order to demystify the notion that there is "perfect parenting" and to illustrate how one can learn from one's mistakes. After each vignette, the therapist leads a group discussion of the relevant interactions and encourages parents' ideas. Vignettes of parenting mistakes provide a wonderful opportunity to engage parents in analyses and critical thinking about what makes one technique effective while another is not. Group discussion provides a way for parents to gain acknowledgment for their thoughts and experiences. It also provides a safe forum for disclosure of past mistakes as well as fears, regrets, misgivings, etc. Therapists have the opportunity to model positive self-talk as they discuss vignettes or relate similar experiences, and such talk encourages parents to refrain from self-blame about their own parenting mistakes, and instead to believe in their future successes. Efforts are made to promote the modeling effects for parents by encouraging identification with the models shown on the videotapes; the videotapes show parents of differing sexes, ages, cultures, socioeconomic backgrounds, and temperaments demonstrating different levels of parenting skill, so that parents will perceive the models as similar to themselves and their children. Home activities are given out each week which include daily

practice exercises as well as a weekly chapter to read or listen to on audiotape from the book, *The incredible years: A trouble-shooting guide for parents* (Webster-Stratton, 1992a).

The group discussion and collaborative format were chosen to ensure that the intervention would be sensitive to individual cultural differences and personal values, as well as to enhance parents' commitment to parental self-management. The program is also designed to help parents understand and learn to accept normal variation in children's developmental abilities, emotional reactions, and temperament style. The self-management aspect of the program is emphasized by asking each parent to identify the particular positive behaviors they want to see more of in their children and the negative behaviors they want to decrease. These targeted behaviors then become the focus for them to apply the "parenting principles" which they learn in the program. In this sense the program is "tailored" to each family's individual needs and goals as well as to each child's abilities.

The program utilizes group process not only because it is more cost effective but also because it addresses an important family risk factor-namely, the family's sense of isolation and stigmatization. The parent groups enhance and promote parent support networks and mutual collaboration (Webster-Stratton & Herbert, 1993, 1994). This support is also extended during the week by means of weekly assignments which include "buddy calls," a process whereby parents call each other to share their experiences regarding the assignments. However, the program has also been given to over 80 parents of conduct problem children as a completely self-administered intervention-that is, parents view the videotapes and complete the homework assignments without therapist feedback or group support.

5.08.4 RESEARCH FINDINGS REGARDING TRADITIONAL PARENT TRAINING

5.08.4.1 Short- and Long-term Follow-up and Program Generalizeability

The use of PT as an intervention for child conduct problems has been extensively researched, and there are a number of excellent reviews (Henggler, Borduin, & Mann, 1993; Kazdin, 1987; Miller & Prinz, 1990; Patterson, Dishion, & Chamberlain, 1993). Programs have reported high parental ratings of acceptability and consumer satisfaction (Cross Calvert & McMahon, 1987; McMahon & Forehand, 1984; Webster-Stratton, 1989). The success of short-term treatment outcome has been verified by significant changes in parents' and children's behavior and in parental perceptions of child adjustment (Kazdin, 1985; McMahon & Forehand, 1984; Patterson & Reid, 1973; Webster-Stratton, 1981a, 1982a, 1984, 1990a; Webster-Stratton, Hollinsworth, & Kolpacoff, 1989) in comparison to waiting-list control families. Home observations have indicated that parents who have undergone training have been successful in reducing children's levels of aggression by 20-60% (Patterson et al., 1982; Webster-Stratton, 1985b). While the majority of studies have been conducted with Caucasian mothers, there is some evidence that parent training is also effective with fathers (Webster-Stratton, 1985a, 1990a) and with ethnic minorities (Strayhorn & Weidman, 1989; Webster-Stratton, 1995).

Generalization of behavior improvements has been demonstrated from the clinic setting to the home (Patterson & Fleischman, 1979; Peed, Roberts, & Forehand, 1977; Webster-Stratton, 1984) over reasonable follow-up periods (1-4 years) and to untreated child behaviors (Arnold, Levine, & Patterson, 1975; Fleischman, 1981; Forehand & Long, 1986; Webster-Stratton, 1982a; Webster-Stratton & Hammond, 1990). A 14 year follow-up of parents who attended the Forehand and McMahon program indicated that treated families were performing comparably to non-referred "normative" samples on measures of internalizing and externalizing behaviors, social competence, relationship with parents and academic progress. Unfortunately, the data are mixed regarding generalization of child behavior improvements from the home to the school setting.

Several studies have found that even when a child's behavior improved at home, his or her teacher did not necessarily report improvements in conduct problems and peer relationships in the classroom (Breiner & Forehand, 1982; Forehand, Breiner, McMahon, & Davies, 1981; Forehand, Rogers, McMahon, Wells, & Griest, 1981; Forehand et al., 1979). The Webster-Stratton (1981a) program found significant improvements in child adjustment at school as reported by teachers immediately post-treatment, but a year later these were not maintained. In another randomized study of 43 aggressive boys (grades 2-6), when treatment families were compared with a waiting-list control group, they showed significant increases in family cohesion, empathy, problem-solving efficiency, total family relationships, and positive child behaviors at home and school, with corresponding decreases in family conflict and negative/aggressive child behaviors at home and

at school (Sayger, Horne, Walker, & Passmore, 1988). In a follow-up study of this sample, Sayger, Horne, and Glaser (1993) found that these positive changes in behavior at school, in marital satisfaction, in maternal depression, and in family relationships in general were maintained.

5.08.4.2 Comparison of PT with Other Types of Family Therapy

A few studies have compared the basic PT approach with other forms of family therapy. Patterson compared families randomly assigned to his PT program with those who received treatment from various clinicians in the community representing a range of therapeutic approaches. Results indicated the superiority of PT in producing reductions in child deviance (Patterson et al., 1982). In a subsequent study, Patterson and Chamberlain (1988) randomly assigned parents to their PT program or to a community agency employing eclectic family therapy. Findings indicated significant reductions in child deviant behaviors for PT, but no significant reductions for children in the family therapy condition. Wells and Egan (1988) also evaluated a study comparing PT with family systems therapy. Results indicated that their program was more effective than family systems therapy based on observations of parent and child behaviors, but both programs showed significant decreases in child problem behaviors as reported by parents.

In 1996, Taylor, Schmidt, and Hodgins (1996) reported on a study where they randomly assigned 110 families to a waiting-list control group, to Webster-Stratton's PT program (videotape modeling therapist-led group approach), or to a children's mental health center whose usual treatment approach to conduct problems was eclective, based on individual intervention tailored according to the therapist's personal assessment of a family's needs. Results indicated that the PT program was superior to eclectic treatment in terms of mother's reports of child improvements at home, mothers' confidence levels, and overall consumer satisfaction.

In addition to comparing PT with other forms of family therapy, there have been some attempts to determine which aspects of PT account for the improvements resulting from treatment. For example, to what extent is therapeutic change accounted for by the content, the therapy methods (i.e., videotape modeling), the group support, or the therapist's interpersonal skills? In this vein, Webster-Stratton and colleagues have attempted to determine which methods of PT are most effective. In their first randomized study, they showed that the therapist-led group discussion videotape modeling method (GDVM) was equally good if not more effective than a PT method based on the highly individualized one-to-one "bug-in-the-ear" approach involving direct coaching of the parent and child (Webster-Stratton, 1984). Next they showed that PT based on the GDVM approach was somewhat more effective than either PT based on a therapist-led group discussion approach-without videotape modeling (GD)-or a completely self-administered videotape modeling approach-without therapist feedback or group discussion (IVM) (Webster-Stratton et al., 1988, 1989). All three approaches showed significant improvements in comparison to the waiting-list control condition-even the self-administered videotape modeling program had better treatment adherence than the group discussion approach without videotape modeling. At 3 year follow-up, the improvements in conduct problems (as reported by parents) were maintained only in the group trained by GDVM. In contrast, parents in both the IVM and GD conditions reported significant increases in their children's conduct problems from the 1 year to 3 year follow-up (although still below baseline levels). This component analysis of PT methods seems to suggest that PT methods based on videotape modeling plus parent group discussion and support will produce more sustained and long-term effects than programs which do not use videotape modeling or group discussion and mutual support methods. Moreover, the group approach represents a cost-effective alternative to conventional family therapy (i.e., individual therapy with a single family).

5.08.4.3 Factors Contributing to Program Success or Failure

Despite the general overall success of these programs in producing statistically significant changes in parent and child behaviors, there is also evidence that some families do not respond to treatment; these children continue to have clinically significant behavior problems after treatment (Eyberg & Johnson, 1974). In long-term follow-up studies, 30-40% of treated parents and 25% of teachers report children to have behavior problems in the deviant or clinical range (Forehand, Furey, & McMahon, 1984; Schmaling & Jacobson, 1987; Webster-Stratton, 1990a; Webster-Stratton & Hammond, 1990). In the Forehand and Long (1986) review, according to behavior observa-

tion measures, 4 of the 12 programs failed to produce changes in behavior that were maintained over time; and follow-ups were beset with high attrition rates (50%). In an effort to account for these treatment failures, researchers have focused on identifying variables other than parenting skills which may be directly or indirectly related to the continuation of conduct problems. In particular, there is an emerging literature concerned with family variables such as parents' personal problems, marital relationships, and relationships with others outside the family. Parent and family characteristics such as parental depression, marital conflict, spouse abuse, lack of a supportive partner, poor problem-solving skills, and high life stress have been shown to be associated with fewer treatment gains (Forehand et al., 1984; Forgatch, 1989; Webster-Stratton, 1985b).

5.08.4.3.1 Parental depression

There are somewhat conflicting results regarding the influence of depression on parents' ability to benefit from PT (Forehand et al., 1984; Wahler, 1980; Webster-Stratton, 1988; Webster-Stratton & Hammond, 1988). Researchers have long noted that pretreatment levels of maternal depression (self-reported symptoms, not formal diagnosis) are significant predictors of attrition rates during PT (McMahon, Forehand, Griest, & Wells, 1981) and failure to take part in follow-up assessments. However, research has rarely evaluated paternal depression as a predictor of treatment outcome. In the only study to be found concerning the role of fathers' depression, Webster-Stratton and Hammond (1990) evaluated the relative contribution of maternal and paternal depression (along with other variables related to parents' mental and emotional states) to short-term and long-term treatment outcome for 101 families who had been treated for their children's conduct problems via PT. They found that pretreatment levels of maternal and paternal depression (as measured by the Beck Depression Inventory) were significant predictors of maternal and paternal reports of their children's maladjustment (i.e., failure to fall into the normal range on standardized parent report measures) immediately post-treatment; however, reported depression was not related to clinically significant behavioral improvements following treatment-either in parenting behaviors (i.e., a 30% drop in criticisms from baseline) or in the child's interactions with mothers or fathers (i.e., a 30% drop in total negative behaviors from baseline) (Webster-Stratton, 1994). At 1 year follow-up, pretreatment levels of depression still predicted mother and father reports of child adjustment, but again were not related to parent and child behavioral improvements at home (as independently observed) or to child behavior at school (as reported by teachers). On the other hand, marital status and socioeconomic status for mothers were strong predictors of continuation of mothers' critical behaviors and child conduct problems post-treatment, while marital dissatisfaction and negative life events were strong predictors of fathers' critical behaviors and child conduct problems at follow-up. This study confirmed an earlier study by Forehand and Furey (1985) which found an association between marital satisfaction and parent and child behaviors, and an association between depression and mothers' perceptions or attributions concerning their children, but not mothers' behaviors.

Studies have also shown that maternal depression significantly improves following PT when subjects are compared with waiting-list control mothers (Forehand, Wells, & Griest, 1980). In a study involving 85 families of children with conduct problems, Webster-Stratton (1994) reported that both mothers and fathers showed significant reductions in depressive symptoms immediately after PT, levels which were maintained 2 years later. Of the total sample, 31.2% of mothers and 22.4% of fathers indicated depressive symptoms in the mild to moderate range pretreatment; after PT, 54.2% of the depressed mothers and 83.3% of the depressed fathers had changed into the normal range. Further analysis indicated that those mothers who showed significant improvements in their depression scores (into the normal range) reported more significant improvements in child adjustment than mothers whose depression scores remained abnormal, and their children showed a higher ratio of positive to negative social skills (30% increase) than children of mothers with abnormal depression scores. For fathers, no significant relationships were found between an improvement in depression level and improvements in child behavior. These data suggest that the best predictor of long-term treatment outcome for children may be mothers' post-treatment levels of depression, rather than pretreatment levels.

5.08.4.3.2 Marital conflict

Next, consider the impact of marital conflict on treatment outcome (Grych & Fincham, 1990). Earlier it was noted that the relationship between the intensity of marital conflict and

levels of childhood behavior problems (Fantuzzo et al., 1991). Unfortunately, only a few studies have examined the relationship of marital variables to treatment outcome for parents of children with conduct disorders. Some of the early studies (Oltmanns et al., 1977) found no relationship between pretreatment levels of marital adjustment and treatment outcome, and found no changes in marital satisfaction following treatment. However, others have found marital distress to be an important predictor of treatment failure (Dadds et al., 1987; Webster-Stratton, 1994). Dadds found that marital conflict was predictive of poor treatment outcome assessed at 6 month follow-up (Dadds & McHugh, 1992). In Webster-Stratton and Hammond's (1990) study, marital status and marital conflict (for mothers and fathers, respectively) were factors that made the greatest contribution to the prediction of child behavior problems immediately post-treatment. One year later, marital status was the strongest predictor of treatment outcome as measured by teachers' reports of child behavior; single-parent families accounted for significantly more nonresponders to treatment (Webster-Stratton, 1990a). Mothers of children classified as nonresponders also reported significantly lower income and more depression than mothers of children classified as responders. However, at 1 year follow-up there were no significant differences in levels of marital conflict reported by parents of children classified as responders and parents of nonresponders. Moreover, Webster-Stratton found that marital conflict did not improve as a result of PT, unlike mothers' depression. Consequently, it appears that while PT can improve parent-child interactions and maternal depression, it has no impact on marital satisfaction or conflict; conversely, marital conflict and marital satisfaction do appear to have an impact on the outcome of PT.

These findings suggest a model in which the key causal factor behind child conduct problems is not lack of parenting skills *per se*, but rather parents' lack of conflict management skills. Parents who have more difficulties with communication, conflict resolution, and affect regulation find it harder to cope with life stressors, marital disagreements, and common child misbehaviors. As a result, not only do they fall into the negative reinforcement trap when parenting, but they also model their troubled communication and affective patterns for their children, thereby further contributing to their children's difficulties with peer relationships including poor communication and poor problem-solving, as well as escalating anger and aggression.

5.08.4.3.3 Insularity and socioeconomic disadvantage

How do insularity, family socioeconomic disadvantage, and high levels of life stress contribute to treatment success or failure? Recruitment rates for PT interventions with low-income families of conduct-disordered children are low (Spoth & Redmond, 1995). Families who are socioeconomically disadvantaged have often been reported to be more likely to drop out of treatment (Eyberg, 1992) and more likely to relapse or fail to make clinically significant improvements following treatment or to maintain treatment effects over time (Dumas & Wahler, 1983; Wahler & Afton, 1980; Wahler & Dumas, 1984; Wahler & Fox, 1982; Webster-Stratton, 1985b). In a study of 257 clinic children and their families who initiated treatment for aggressive behavior, it was shown that parental stress (total stress and life events) predicted early drop-out from treatment but not late drop-out (Kazdin & Mazurick, 1994). Wahler (1980) found that mothers who reported having had negative interactions with their community before treatment were less likely to maintain treatment effects over time.

Socioeconomic disadvantage coupled with social isolation or insularity resulted in a steady increase in the probability of PT treatment failure (Dumas & Wahler, 1983). Finally, in another study it was shown that those clinic families who had a partner or father involved in treatment (presumably providing more support) were more likely to sustain treatment effects 2-3 years later (Webster-Stratton, 1985a). A family's ability to maintain treatment effects at one year follow-up has been correlated with their degree of negative life crisis and environmental stresses (e.g., move to new neighborhood, death in family, unemployment), degree of insularity or support, and poverty (Webster-Stratton, 1985b).

All of these findings taken together suggest that PT programs need to be broadened to emphasize partner involvement (see earlier discussion regarding marital support and communication training), parent support, marital communication, problem-solving and coping skills. Moreover, the failure of many programs to result in child behavior improvements which generalize to school settings suggests the need for some form of training that equips parents to collaborate with teachers in order to improve their children's behavior at school as well as at home. This broadened view of PT will more accurately reflect the more complex model concerning the etiology of conduct problems.

5.08.4.3.4 Child characteristics

With respect to child characteristics, such as the nature of the child conduct problems, the child's age, sex, race, and particular biology, there is a lack of information concerning the important child predictors of long-term treatment outcome. Outcome studies rarely separate results for preschoolers from results for school-aged children. However, there is a suggestion from several follow-up studies of PT programs for parents of children with conduct disorders that the younger the child at the age of treatment, the more positive the child's behavioral adjustment at home and at school (Strain, Steele, Ellis, & Timm, 1982). Dishion, Patterson, and Kavanagh (1992) reported that children aged 2-6 years had the most significant improvements. Neither sex nor race have predicted outcome, although there is a suggestion in the literature that there may be different etiological factors leading to ODD/CD for girls and boys (Webster-Stratton, 1996a). There is scant research concerning how child biological factors affect PT outcome, although it has been suggested that the prognosis is worse for children with conduct problems combined with ADHD (unless medication is added) (Barkley, 1996; Walker, Lahey, Hynd, & Frame, 1987). Nonetheless, this research was carried out with older children, leaving it unclear how child biological factors influence PT for young children. Webster-Stratton's studies did not find that child age, sex, or hyperactivity predicted treatment success; instead, it was family factors such as life stress, socioeconomic status, and marital conflict that predicted long-term outcome in terms of the continuation of child antisocial behavior following her PT program (Webster-Stratton, 1985b; Webster-Stratton & Hammond, 1990).

5.08.4.3.5 Therapy characteristics

It is clear that not all PT programs are equally effective. Therapy factors, such as the format and methods of training, the dose and length of treatment received, and therapist characteristics, undoubtedly play an important role in predicting treatment outcome. However, these therapy factors have rarely been evaluated. For example, length of treatment has rarely been assessed as an independent variable. Kazdin (1987) has suggested that PT programs less than 10 hours in duration are less likely to be effective with conduct-disordered children. Certainly the programs which we have highlighted above have been lengthy, ranging from 20 to 45 hours. Related to the length of the treatment program is the dose of therapy which the family actually received. There is some suggestion in the literature that families who attend more sessions (greater than 50%) have a more successful outcome than families with poor attendance (Strain et al., 1982). However, this finding has not been reported by other researchers (Dumas & Albin, 1986). Another factor related to treatment dose is whether the father (or some other family member) participated in the training along with the mother. In one study, it was shown that those clinic families who had a partner or father involved in treatment (presumably providing more support) were more likely to sustain treatment effects 2-3 years later (Webster-Stratton, 1985a). The existing evidence would suggest that the involvement of another supportive family member leads to better generalization and maintenance of treatment effects over time (Webster-Stratton, 1985a; Webster-Stratton et al., 1988). Finally, Webster-Stratton's studies suggest that treatment methods such as group support and videotape modeling add substantially to the long-term effectiveness of PT programs (Webster-Stratton, 1984, 1990a).

5.08.4.3.6 Therapist characteristics

There is even less research concerning the role of the therapist and the therapeutic process in predicting treatment outcome. Webster-Stratton and Herbert c(1993, 1994) have described their PT programs as based on a collaborative or partnership model, whereby the therapist works *with* parents by actively soliciting their ideas and jointly involving them in the process of problem-solving, sharing, discussing, and debating ideas and solutions (also see Webster-Stratton & Herbert, 1994). It is suggested that this approach empowers parents by giving back dignity, respect, and self-control to parents who are often seeking help for their children's problems at a vulnerable time of low self-confidence and intense feelings of guilt and self-blame (Spitzer, Webster-Stratton, & Hollinsworth, 1991). On the other hand, some behavioral PT programs seem to be based on an "expert" or hierarchical model, whereby the therapist is more directive-suggesting solutions and dispensing advice for the parents. To this author's knowledge, there has been no research comparing PT programs in terms of their different helping models and different sets of assumptions about the cause of family problems.

While there are no comparison studies, one of the most comprehensive microsocial analyses of therapist-client interchanges was conducted by Patterson and Forgatch (1985). They showed that directive therapist behaviors

such as "teach" and "confront" increased the likelihood of parental resistance and noncooperativeness in a session. On the other hand, therapist behaviors such as "facilitate" and "support" led to reliable decreases in client noncompliance. Patterson and Chamberlain (1988) have proposed a therapy model which postulates that therapist behaviors play a secondary role to extrafamilial, interpersonal, and child factors in predicting parent response to the early stages of treatment, but play a primary role in predicting client noncompliance in the later stages of therapy. In another study, Alexander and Parsons (1973) examined the role of therapist characteristics in predicting outcome (as defined by completion of treatment and recidivism rate) for families that participated in family functioning therapy (FFT). They found that relationship characteristics (affect, warmth, humor) accounted for 45% of the variance in predicting outcome, whereas structuring characteristics (directiveness and self-confidence) only accounted for an additional 15% of the variance.

5.08.4.4 Limitations of Studies Related to Treatment Outcome

The research regarding treatment outcome is beset with methodological problems. First, there is a lack of unanimity as to what is meant by "successful" treatment or "improvement" in conduct problems. Different studies have utilized different criteria for evaluating treatment outcome as well as different measures of those criteria. Because of the expense involved in observational methods, some studies have used mothers' reports of improvement in the child's behaviors as the definitive outcome criterion; however, global ratings by parents may reflect how they feel about themselves and their child, rather than any real change in child behavior. Further, it appears that the validity of raters' evaluations varies according to characteristics of the raters. For example, Patterson has shown that the more deviant or socially disadvantaged the parents, the less convergence there is between their ratings and teacher ratings or observational ratings (Patterson et al., 1993). Studies of clinical samples have shown maternal ratings of problem children to be correlated more highly with their self-ratings of depression than with the observed behavior of their children (Forehand et al., 1984; Griest, Forehand, Wells, & McMahon, 1980). Patterson and Narrett (1990) have suggested that mothers' ratings of child behavior reflect improvement even when there is no treatment-resulting in the impression that anything and everything works! On the other hand, neither is independent observation of behavior a wholly unbiased method of evaluating change, though it appears to be less susceptible to some of the problems of self-report measures.

Even when researchers agree on the criterion for evaluating treatment outcome, there may be no agreement on what variable represents that criterion. For instance, if observable behavior is the criterion, the question then becomes whether the relevant outcome variable is parent behavior or child behavior. Whether one expects parent and child behavior to change simultaneously depends on one's theoretical model. Those who ascribe to the PT model believe that changes in parenting behavior (the most proximal variable being influenced by the treatment) eventually will cause changes in child behaviors (the more distal variable), which implies that the appropriate criterion for evaluating the success of PT is, at least for the short term, parenting behavior. Support for this theory is found in one study which showed that the magnitude of changes in parental discipline correlated significantly with changes in antisocial behavior (Dishion et al., 1992). Patterson and Forgatch (1995) examined separately the contributions of baseline, termination, and change scores from parent and teacher reports, as well as observations and process variables to determine their validity as predictors of future child outcomes. The results indicated that termination scores for parents' behaviors post-treatment and the amount of change in parental practices (i.e., positive problem-solving) were powerful predictors of long-term outcome for children, defined as future arrests or removal from home. Neither termination ratings nor change ratings of teacher or parent reports nor termination scores of child adjustment immediately post-treatment predicted future child arrests or out-of-home placements. This study supports the use of parent behavior as predictors of child outcomes-and yet there is no consensus that child arrests or out-of-home placements are criteria for treatment success.

Another issue regarding treatment outcome is: how much change constitutes significant improvement? Often observational measures lack normative data on comparable nonclinic samples with which to compare our clinic samples. As a result, researchers typically utilize percentage improvement from baseline to indicate clinically significant change. But there is no consensus regarding the degree of improvement-the percentage of change-that

is necessary to declare behavior "improved." Moreover, in a case where a child does show a 30% or even a 50% reduction in aggressive or noncompliant behaviors from baseline, but is still in the clinical range, is he or she defined as improved or not?

The next limitation to existing research concerns risk factors. As can be seen, in this review, studies typically have analyzed a single risk factor by means of global measures (such as depression, marital satisfaction, family insularity, or life stress) and correlated it with some aspect of treatment outcome. Just as there is a problem with the use of global self-report measures of treatment outcome, there is a problem with the use of global self-report measures as predictors. Global reports do not elucidate the precise aspects of, say marital distress or depression, nor the mechanisms by which these problems maintain the problem behaviors-i.e., contribute to the failure of treatment. In addition to this problem, most studies have been based on short-term results of treatment; they have told us little about the more important concern, namely how these family processes influence long-term treatment outcome. Moreover, very few studies have compared the relative weight or contribution of individual risk factors (such as depression in combination with marital distress) with treatment outcome. In comparison to the large number of individual treatment outcome studies, there is a paucity of studies containing any information about predictors of treatment success, in most cases because the study sample size was too small to form any meaningful conclusions.

Another problem with the research on risk factors is that those studies which have looked at predictors of treatment outcome in terms of children's conduct problems have tended to combine both boys and girls in their samples. It is highly probable that the predictors will be different for boys and girls. Webster-Stratton (1996a) found not only that the predictors differed depending on whether the outcome variable assessed was child externalizing problems at home (according to independent observations) or at school (according to teachers), but also that there were gender differences in predictors: mother negativity and depression and father negativity and life stress significantly predicted girls' externalizing problems 2 years post-treatment and accounted for 49% of the variance, whereas for boys no parenting or family variables emerged as predictors-rather independent observations of externalizing behaviors at baseline were the best predictors of boys' continuing externalizing problems at home 2 years later.

5.08.5 BROADENING THE FOCUS OF PT

Despite the limitations in research studies and differences in outcome measures employed, there has been remarkable consistency in the findings and they seem to hold true even in the face of these problems. Research results regarding the characteristics of families who failed to respond to PT pointed to the necessity of expanding our etiological models as well as broadening our PT focus. Since the mid-1980s, efforts have been made to improve the effectiveness of PT by adding other therapy components to the basic programs: training in social learning principles, problem-solving, self-control and emotional regulation, marital communication, anger management skills, "synthesis training," and ways to give and get support. These components include more sophisticated affective and cognitive skill training. Evaluation of the effectiveness of these adjuncts to PT helps test models regarding the important factors contributing to the maintenance of conduct problems.

5.08.5.1 PT with Marital and Other Parent-focused Adjuncts

Based on the studies indicating associations between marital conflict and poor child-treatment outcomes, a number of investigators have evaluated the effects of adding specific marital treatment components to standard PT. Greist et al. (1982) compared PT with a program which combined PT with a focus on marital adjustment and extrafamilial relationships. The combined program showed greater improvements in terms of child deviance at short-term follow-up. Dadds et al. (1987) examined the specific effects of a brief marital communication intervention, partner-supported training, as an adjunct to PT for parents with a child who had conduct problems. Results indicated that the adjunctive marital component led to enhanced treatment outcomes for couples experiencing discord (but not for maritally satisfied couples) compared with the couples experiencing discord who received only PT (Dadds & McHugh, 1992; Dadds et al., 1987).

Two other consistently documented factors related to treatment failure or drop-out and failure to maintain change following treatment are social disadvantage and isolation (Dumas & Albin, 1986; Webster-Stratton, 1985b). A number of studies have developed PT programs addressing these issues. Wahler (1980) and Wahler and Dumas (1989) defined "insular" parents as those who experience low levels of positively perceived social interactions and high levels of negatively perceived coercive ex-

changes within the community. They hypothesize that insular mothers have disruptions in their monitoring processes which interfere with their ability to adequately monitor their children and result in indiscriminate responding. Consequently, these researchers developed an adjunct treatment called "synthesis training" whereby parents are taught how their external events or circumstances influence their parenting behavior in order to help them be more effective at monitoring and providing discriminate responses. Synthesis training has been evaluated with multistressed mothers of children with conduct problems (Wahler, Cartor, Fleischman, & Lambert, 1993) and compared with PT alone, and with PT plus friendship liaison. Results indicated that parents who received the synthesis training had reductions in their indiscriminate parenting and their children demonstrated behavioral improvements. Mothers in the basic PT did not change their behavior, nor did their children.

Dadds and McHugh (1992) assessed the role of social support in the outcome of PT for single parents of conduct problem children and assessed the impact of "adjunctive ally support" training (AST) on treatment outcome. Single parents with children diagnosed with ODD or CD were randomly assigned to PT or PT plus AST. Improvements were found in both groups, but AST produced no extra gains. However, responders from both groups were more likely than nonresponders to report high levels of social support from friends, a finding which is consistent with that mentioned earlier regarding father involvement in the PT (Webster-Stratton, 1985a).

In an attempt to address a number of family issues including social support, marital issues and maternal depression, Webster-Stratton (1994) developed a lengthy, 14 week adjunct program (ADVANCE) involving therapist-led group discussions of videotape vignettes on all the following topics: strengthening social support and self-care, personal self-control, family communication skills, problem-solving between adults (and with teachers), and teaching children to problem-solve. Emotional communication is a major emphasis of this advanced program. This is an important skill for families who have until recently felt overwhelmed by negative affect, and who may have indirectly or directly communicated to their children that negative emotions are too frightening or too aversive to share. Parents learn to talk to children about emotion and to respond to their children's emotions appropriately and contingently as a way of increasing their children's emotional regulation (Denham, 1989; Denham, Zoller, & Couchold, 1994).

Families of children with conduct problems were randomly assigned to either the basic PT (GDVM) or GDVM plus ADVANCE. Results immediately post-treatment showed significant improvements in parents' problem-solving, communication and collaboration skills, as well as in children's problem-solving, for families in the combined treatment. Both mothers and fathers from the combined program reported increased consumer satisfaction, and there were no drop-outs from the ADVANCE program, suggesting the perceived usefulness of the skills taught in this program. Moreover, fathers who showed improvements in marital communication and problem-solving post-treatment also showed significantly greater improvements in parenting skills (specifically, reduced hostility and criticisms with children). However, children of ADVANCE parents failed to show significantly enhanced improvements over the children of GDVM parents in terms of child deviance. Both groups of children showed significant reductions in child deviance at home. It was hypothesized that the effects of the ADVANCE parents' improved communication and problem-solving skills may have been delayed, as children need to be exposed to repeated modeling over a sustained period of time. This suggests the need for longer-term follow-up of the two groups.

In summary, studies which have investigated the potential contribution of adjuncts to the standard PT intervention have generally indicated that components which address the social context of families, marital issues, and parental depression can improve the short- and long-term outcomes over and above basic PT (Dadds et al., 1987; Griest et al., 1982; Webster-Stratton, 1994 1997b).

5.08.5.2 PT with Child Training Adjuncts

Studies have indicated that children with ODD/CD may have some sociocognitive deficits in social problem-solving, self-control, and perceptions; these may be of biological origin, may be the result of parental modeling, or some combination of the two. This has led to a few studies evaluating the effects of combining child training (CT) with PT. Kazdin, Siegel, and Bass (1992) compared three interventions: PT, problem-solving skills training for children (PSST), and PT combined with PSST. Each treatment reduced overall child conduct problems and increased social competence. However, the combined treatment led to more durable changes in child behavior, placing a higher proportion of children in the range of normal functioning. The combined treatment

also resulted in greater changes in parent functioning, including reductions in parental stress, depression, and overall symptoms. These results were maintained at 1 year follow-up. In another study, Baum, Reyna-McGlone and Ollendick (1986) compared three different interventions: PT, PT combined with child self-control training, and a control condition in which parent discussion was combined with a child attention control condition (control). Results indicated that the PT intervention (with or without the CT component) was superior to the control condition and, for the most part, the two treatment conditions did not differ from each other immediately post-treatment. However, at follow-up the combined treatment (PT plus child self-control training) was superior to PT alone and to the control condition on observational measures of child deviant behavior and on child and mother reports of adjustment.

Finally, Webster-Stratton (1997b) compared four conditions: PT, CT, CT + PT, and a waiting-list control group. Post-treatment assessments indicated that all three treatment conditions had resulted in significant improvements in comparison with controls, as measured by mother and father reports, daily observations of targeted behaviors at home and laboratory observations of interactions with a best friend. Comparisons of the three treatment conditions indicated that CT and CT + PT children showed significant improvements in problem solving as well as conflict management skills, as measured by observations of their interactions with a best friend; differences among treatment conditions on these measures consistently favored the CT condition over the PT condition. As for parent and child behavior at home, PT and CT + PT parents and children had significantly more positive interactions in comparison with CT parents and children. One year follow-up assessments indicated that all the significant changes noted immediately post-treatment were maintained over time. Moreover, child conduct problems at home had significantly lessened over time. Analyses of the clinical significance of the results suggested that the combined CT + PT condition produced the most significant improvements in child behavior at 1 year follow-up.

In summary, these studies on child adjuncts to PT support the hypothesis that supplementing PT with a component that addresses the child directly increases the efficacy of PT. Additionally, these data point to the necessity for long-term assessment of interventions, since the benefits of the adjunct treatment often were not evident until the follow-up evaluation.

5.08.5.3 Future Directions for Research and for Practice

Our review of the research regarding PT has focused on programs for children with ODD/CD because this area comprises the largest body of research regarding PT. Second, we have focused on programs that target preschool and school-age children rather than adolescents because we feel adolescent conduct disorders necessitate other interventions such as individual therapy in addition to or alongside PT. We have not reviewed PT programs specifically targeted at other childhood disorders such as autism, anxiety disorders, learning disabilities, and ADHD.

Despite the limitations of existing research, the evidence appears to support a more comprehensive, multisystem-based model in which conduct problems are not seen merely as evidence of inept parenting skills which need to be changed via treatment, but instead where parenting behavior is seen to be impacted by the events and conditions within and outside the family. We believe the findings to date argue for broader-based treatments which address multiple risk factors and strengthen multiple protective factors such as parenting skills, support networks, and problem-solving and communication as a means of preventing early-onset conduct problems. By strengthening parenting skills and problem-solving strategies and ensuring adequate support (through broader-based family training support groups) for families of young children with conduct problems, we can help families buffer some of the potentially disruptive effects of ongoing depression, marital conflict, negative life stress, and poverty on children's adjustment. Indeed, initial studies of broader-based interventions suggest they promote more enduring child improvements which generalize across settings and over time, as well as fewer treatment drop-outs. Combining PT with CT appears to lead to even greater maintenance of improvements in parent and child behaviors.

Nonetheless, the original formulation of Patterson et al. (1975) is still compelling, particularly as it relates to young children with conduct problems: parenting skills are the most important proximal cause of early-onset conduct problems, because parents are still the primary agents of socialization of the child at this age. Given that this formulation is correct, the success of treatment programs in changing the parenting behavior of parents of young children should predict the child's future adjustment. For children aged 3-7 years, peer rejection, deviant peer groups, academic failure, and negative reputations have not stabilized,

whereas for the older school-age child these factors play a key role in maintaining the conduct problems and must be taken into account in intervention. Moreover, parents of younger children are still hopeful and their patterns of parenting are more malleable than those parents who have spent years of coping unsuccessfully with an oppositional child at home. Support for this idea comes from studies which have suggested that PT is more effective in improving both parenting skills and child adjustment when offered to parents of younger children versus older school-age children and adolescents (where presumably more will be required in terms of direct intervention with the child and his or her peer group) (Strain et al., 1982). Further support for the importance of developing comprehensive interventions that can strengthen parenting skills and thereby influence the long-term outcome for children's adjustment is provided by Patterson and Forgatch's (1995) study.

5.08.5.4 Expansion Across Multiple Settings

Nonetheless, while PT holds much promise for treating children with conduct problems, there are several important limitations to this approach. The first important limitation is the inability of this approach to consistently produce child behavior improvements which generalize beyond the home to day-care or school settings and to peer relationships. While the majority of children improve their social behavior at home, 30-50% continue to have significant school problems such as social acceptance, conduct problems, and academic underachievement. Intervening with children's teachers as well as their parents would seem to offer far better possibilities of generalizing improved social skills from the home to preschool and school settings. In particular, schools may enhance the effects of PT by providing teachers not only with classroom behavior management training, but also with the curriculum and support to directly offer training in social skills and problem-solving.

A second limitation is that, despite the documented links between academic underachievement, language delays, reading and learning disabilities, ADHD, and conduct disorders, PT programs rarely, if ever, have included an academic skills enhancement program for parents. Parents need to know not only how to help their children with their antisocial problems but also how to teach and support them regarding their academic difficulties. They need to know how to work with teachers and schools in order to foster a supportive relationship between the home and school settings. Parents and teachers alike need to understand how to collaborate with one another, to build supportive teams to help these children both academically and socially. Such a coordinated effort between the home and school regarding social and academic goals will offer the possibility for more consistent generalization of child improvements across settings. There is little or no research comparing PT with PT offered in conjunction with teacher training or, more generally, evaluation of intervention efforts to span home and school. Research which evaluates the added effects of combining teacher training and parents' academic skills training to our traditional PT approaches should be encouraged.

5.08.5.5 Teachers and Other Professionals

Since preschoolers living in more dysfunctional or disrupted family environments or in poverty are at particular risk for persistent problems, the need for strong educational and therapeutic preschool programs with nurturing and well-qualified teachers is critical. This means preschool teachers and child care workers should be well trained in child development and behavior management skills. Stable and nurturing caregivers may be able to buffer the effects of parental unavailability or psychopathology, at least for some children. However, all too often these are the very children who are spending large amounts of time in the least adequate facilities with untrained caregivers, where child-to-caretaker ratios make it impossible to provide the attention, affection, and emotional support they need. Finally, since parents bring their first questions about common developmental issues and problem behaviors to their pediatrician or family physician, these professionals also need training that allows them to understand parental perspectives within a developmental framework-so that they neither pathologize common problems nor minimize parents' concerns.

5.08.5.6 Addressing Extrafamilial Change

Interventions which have focused on adjuncts to PT reflect a paradigm shift from individual change (i.e., parenting skills) to within-family change (i.e., marital communication and problem-solving skills). But there has been no further shift to what might be called extrafamilial or interfamilial change, such as a family's need to form stronger and more supportive connections with other families

and with the community in general. We theorize that, particularly for low-income families, there is an urgent need to broaden PT programs so as to focus on building community and parent support networks. Indeed there is evidence from the "buffering" interpretation of social support (Cohen & Willis, 1985) that particularly for low-income families, the greater the number of people parents felt they could rely on for informal assistance and the more satisfied they felt with their social support, the more likely they were to be nurturing and positive in their parenting interactions and the less likely they were to report problematic behavior (Hashima & Amato, 1994) compared with low-income mothers who felt isolated and dissatisfied with their social support (Jennings, Stagg, & Conners, 1991).

Many interventions have been based on the individual one-to-one counseling model which fosters reliance on the therapist. Those programs which have used a group approach (Webster-Stratton, 1994) have suggested that fostering supportive social networks was a primary purpose of the group approach. The therapeutic group can decrease families' isolation, promote a feeling of support and involvement, and build a sense of community. However, little reference is made to the specific therapeutic strategies used to achieve this goal. Indeed, compared with our well-developed research methods of measuring parent behavior change, few studies report outcome measures having to do with change in social networks, parents' sense of support, or their involvement in their communities (including their children's school) as a result of PT. If we are going to develop more effective interventions targeting these factors, we will need suitable outcome measures (Webster-Stratton, 1997a).

5.08.5.7 Engaging Low-income Families, Understanding Obstacles and the Importance of Culture

The PT literature has suggested that PT is less effective with disadvantaged parents-particularly low-income single mothers (Wahler, 1980). Such families have been described as unmotivated, resistant, unreliable, disengaged, chaotic, in denial, disorganized, uncaring, dysfunctional, and unlikely candidates for this kind of treatment-in short, "unreachable." However, these families might well describe traditional clinic-based programs as "unreachable." Clinical programs are often too far away from home, too expensive, insensitive, distant, inflexible in terms of scheduling and content, foreign in terms of language (literally or figuratively), blaming or critical of their lifestyle. A cost-benefit analysis would, in all likelihood, reveal that the costs to these families of receiving treatment far outweigh the potential benefits-even though they do genuinely want to do what is best for their children. Perhaps this population has been "unreachable" not because of their own characteristics, but because of the characteristics and obstacles of the interventions they have been offered.

The paradox is that while, on the one hand, we decry the lack of efficacy of therapy (i.e., PT) with economically disadvantaged families, on the other hand, we also maintain the belief that if we could just do *more psychodynamic therapy* focusing more broadly (i.e., on family dysfunction and parental psychopathology), we would be more effective. But we believe the problem may not lie in the focus of the therapy (i.e., parenting skills vs. family dynamics), but rather in the therapeutic model or approach-namely, a traditional clinic-based model of PT. Before abandoning PT as an intervention with this population, we should examine alternative models of delivering PT which take the broader social context into consideration. If PT is offered in nonstigmatizing locations (as opposed to mental heath centers) and made readily available in communities through churches, schools, and community centers, the programs might well attract more families. PT programs which provide for transportation, day care, meals, flexible scheduling, and attend to some of the obstacles for families getting to and staying involved with programs are likely to be more successful. More research is needed on how programs can be made culturally sensitive and tailored to the specific needs and priorities of the particular parents involved. In general, much more research is needed on ways to promote parental involvement and engagement in PT programs.

Socioeconomically disadvantaged families and rural families are less likely to seek mental health services for children's behavioral problems. This may be due to psychological obstacles such as the stigma associated with seeking assistance for psychological problems. Or it may be due to differences in priorities, or to cultural differences in how behavior problems are viewed and solved within a family. For example, in some cultures there is shame attached to disclosing family problems outside the family which extends to the entire family, relatives, and ancestors. Or it may be the result of an attitude that little can be done about the problem. As we noted earlier, failure to access such services may result from structural obstacles such as difficulty accessing and paying for services, lack of transportation, the distance

involved in getting to the service, lack of baby-sitting for other children, inflexible clinic hours, etc. It is necessary to understand the obstacles that disadvantaged groups experience when accessing services and to develop more effective ways of reaching these families and attracting them to such programs.

The growing ethnic diversity among families in the United States also makes it imperative that we not only recognize and understand different cultural attitudes and practices regarding parenting, but more importantly develop interventions that are culturally informed and appropriate for different ethnic groups. It is important to be cautious about generalizations regarding specific cultural groups, for every parent is different and has his or her own unique history. Nevertheless, it is essential to understand the cultural values and historical factors that are the context for parenting, influencing parents' behavior with their children (Harkness & Super, 1995). For example, parents from certain cultural groups may put a high priority on their children developing habits of obedience, humility, respect for the elders, reliance on family networks, and family interdependence, while parents from other groups may value creativity, personal self-control, and emotional independence. In some cultural groups communication styles are open, volatile, and expressive, while in other groups communication is more indirect and infrequent. Attitudes toward discipline range from strict discipline practices of cultures which value obedience to authority to the permissive discipline practices of cultures which place emphasis on personal autonomy and self-respect. PT research encompassing cultural issues is almost nonexistent (Forehand & Kotchick, 1996). Apart from anecdotal information, we do not know whether certain behavior management strategies (e.g., play, time out, ignoring) are more easily accepted in some cultural groups than others or if a certain therapeutic style would be more effective than another. Finally, mistrust of the majority culture by ethnic minorities can be a barrier to PT. Ethnic minorities walk a fine line between maintaining their cultural history and traditions and adopting the strategies of the European-American culture that are typically associated with success (Coughlin, 1995). This is yet another reason why parenting programs which are collaborative are more likely to be accepted by parents: because parents set their own goals for therapy based on their personal values. Collaborative therapy is inherently more accommodating of cultural differences, whereas noncollaborative therapies are more likely to be shaped by the cultural values and norms of the therapist.

Webster-Stratton has conducted a randomized study to evaluate a prevention program for a multiethnic group of 250 Head Start families, 90% of whom were on welfare. This 9 week, 2 hour parenting program was community-based (held in housing units, churches, and schools) and addressed many of the issues of economically disadvantaged families by providing transportation, day care, dinners, afternoon and evening groups, and parent group support. Since a major theme of the program (in addition to learning parent management skills) was to decrease family isolation by learning effective ways to give and get support (inside and outside the family), parents were paired up to make weekly "buddy" calls. Group leaders called parents weekly. Teachers were also trained in the program and encouraged to provide extra support to families. Visits to classrooms were arranged as well as helping parents write positive notes to teachers. Preliminary results are promising, with over 85% of those who participated attending over two-thirds of the sessions. In comparison with mothers in the Head Start centers which did not offer this program, mothers made significantly fewer critical remarks, used less physically negative discipline, and were more positive, appropriate, and consistent in their discipline style. Intervention mothers perceived their family service workers as more supportive than did comparison mothers; furthermore, teachers reported that intervention mothers were more involved in their children's education than nonintervention mothers. In turn, intervention children were observed at home to exhibit significantly fewer negative behaviors, less noncompliance, more positive affect, and more prosocial behaviors than children in Head Start centers which did not offer the parent intervention.

Consumer satisfaction with the program was high, with 89% reporting "positive" to "very positive" overall satisfaction, 91% reporting they expected positive results, and 95% saying they would "highly recommend" the program to others. Over 85% of the parents in the intervention condition wanted the program to be longer and to continue into the kindergarten year (Webster-Stratton, 1995). While it cannot be determined precisely what the active ingredient of this intervention was because there was no comparison PT intervention, the data are suggestive of the value of directly targeting social support both within and outside the family as well as eliminating barriers regarding transportation, day care, and food for low-income families.

In another randomized study (Cunningham, Bremner, & Boyle, 1995), families were ran-

domly assigned to either a 12 week clinic-based individual PT (Clinic/Individual) or a 12 week community-based large group PT (Community/Group) or a waiting-list control condition. Families who were significantly more likely to enroll in the Community/Groups were characterized as immigrant families, those using English as a second language, and parents of children with severe behavior problems. Parents in Community/Groups reported greater improvements in behavior problems at home and better maintenance of these gains at 6 month follow-ups. Moreover, Community/Group interventions were six times more cost effective than Clinic/Individual training. This important study suggests the potential for group community PT programs as a valuable resource which may reduce the cultural, linguistic, and family barriers which prevent participation in clinic-based programs.

5.08.5.8 More Complex Models

It has become evident that the etiology of and treatment model for young children's conduct problems are complex and transactional and must involve not only attention to family functioning and parent-child mechanisms but also the other domains of influence we have mentioned-namely, child biological and socio-cognitive factors, attachment issues, and the wider contextual influences (Caspi & Moffitt, 1995). While there have been some efforts to study the interrelationship between various types of PT and family contextual factors, there is comparatively little research looking at the interrelationships between PT and child biology, sociocognitive factors, and parent-child attachment.

These interrelationships are important to understand, for the length, breadth, setting, and focus of training needs to be matched to the risk domains affecting the child's problems. For example, if a child has biological and socio-cognitive risk factors as well as insecure attachment with his or her parent, and lives in a stressful family environment, he or she will need a far more comprehensive intervention (involving parent and child training as well as teacher training to alter the peer context in the classroom) than a child who has no biological or family risk factors and has not yet developed pervasive conduct problems which have generalized from home to school. The child who has no biological factors and nonpervasive conduct problems (that is, setting specific) may be adequately treated with a basic PT program. On the other hand, the child coming from a family where there are family problems and social context factors such as drug abuse, marital distress, depression, and attachment problems but who has no biological factors will need an intervention that focuses on family interpersonal problems as well as parenting skills. Depending on the parents' willingness and/or ability to benefit from such a comprehensive family intervention, we may need to supplement the family intervention with teacher training and child training. We should undertake research where we identify risk groups and then evaluate levels of intervention-ranging from relatively basic PT programs to more comprehensive programs involving parent, teacher, and child training.

5.08.5.9 Understanding Therapeutic Process Variables

It is clear that there is a need for research evaluating competing models regarding the etiology of childhood conduct problems. There is a further need for research regarding the critical therapeutic change processes (e.g., comparing interventions which focus on promoting parent-child attachment, interpersonal relationships, and the collaborative process vs. those which are more parent behavior skill-based). While PT research in recent years has focused on expanding the content for PT to include broader family issues, it has largely ignored the role of variables having to do with the therapeutic process itself. Yet these variables affect a family's level of engagement in therapy, their level of resistance and the acceptability of parenting strategies by different cultural and ethnic groups. For example, in one of the earliest studies of therapeutic process, Patterson and Forgatch (1985) have highlighted the critical importance of the manner in which the therapist deals with resistance. They showed that when therapists met parent resistance with confrontation and teaching, there was an increase in parental resistance; when the therapist was nonconfrontive, supportive, and nondirective, the resistance decreased. These findings are important, since parental resistance is a major cause of parental drop-out from therapy and failure to make changes. In another study, Patterson and Forgatch (1995) showed a relationship between fathers' confrontational behavior in therapy and lack of change in mothers' discipline strategies, and a relationship between mothers' hopeless and defending behavior and fathers' discipline strategies. In addition, Alexander and his colleagues have examined the influences of therapist characteristics (e.g., gender) and processes on family behavior (Alexander, Waldron, Newberry, &

Liddle, 1988). They have provided extensive work on the notion of therapist "reframing," suggesting that it is a more effective therapeutic process than therapist teaching and reflecting for reducing defensiveness in parents and adolescents (Robbins, Alexander, Newell, & Turner, 1996). Webster-Stratton and Herbert (1994) have emphasized the importance of a collaborative relationship and interpersonal process with parents and a group approach to PT. This collaboration encompasses 10 domains of therapist skills: (i) building supportive and caring relationships; (ii) empowering parents through behaviors such as reinforcing and validating parental insights; (iii) using active teaching skills (e.g., videotape modeling, role-play, rehearsal, parent group and therapist feedback, home assignments); (iv) interpreting (analogies and metaphors), reframing, and persuading; (v) leading and challenging; (vi) prophesizing (anticipating set-backs and successes); (vii) individualizing, generalizing, and contextualizing; (viii) preparing for the long-term; (ix) fostering PT groups as support systems; and (x) building parent support outside the group. Further research regarding the use of these therapy skills is worth pursuing, in order to understand their relationship to parent engagement in PT and to compare their effects with PT programs which do not utilize these strategies.

Patterson and Forgatch (1995) showed that parental social disadvantage, antisocial behavior, and depression were associated with increased parental resistance throughout PT. They proposed that parental resistance could result from four factors: (i) a history of failure in discipline attempts with the child; (ii) parental psychopathology, depression, and antisocial behavior; (iii) stress and social disadvantage; and (iv) the therapist's clinical skills in teaching and confronting parents. These findings suggest the complex interplay between family, contextual, and therapy process factors.

5.08.6 SUMMARY

Despite the evidence concerning the stability of conduct problems stemming from preschool into later life and the effectiveness of family intervention programs, there is an appalling lack of availability of comprehensive training programs for parents of young children with behavior problems. While funds are available for various mental health screening programs for preschoolers, they are rarely available to provide intervention once children with conduct problems are identified. These children have largely been neglected by the mental health community, which has targeted school-age and adolescence for intervention efforts. Preschoolers are offered help primarily if they have more serious cognitive or developmental delays such as mental retardation, or marked psychosocial disadvantage. When young children with conduct problems come to the attention of professionals, they are frequently ineligible for programs or their problems are dismissed as age-appropriate behaviors which are likely to be outgrown.

Not only are there few programs available, even when children have been identified as having ODD or CD, but there are even fewer prevention programs designed to identify high-risk families and to offer training and support when children are toddlers, before conduct problems develop. Gross, Fogg and Tucker (1995) evaluated the 10 week Webster-Stratton basic parenting program with parents of toddlers judged by their parents as behaviorally difficult. Results suggested that PT led to significant increases in maternal self-efficacy, decreases in maternal stress, and improvements in the quality of mother-toddler interactions. Improvements were maintained 1 year later.

Because it is clear that relatively marked behavior problems in preschoolers have long-term developmental consequences for some proportion of children and their families, the need for early intervention programs is obvious-and pressing. Although comprehensive treatment programs for preschoolers may seem costly in the current economic climate, reducing conduct problems in young children will ultimately decrease the need for mental health and educational services later on. The cost of not treating such early problems far outweighs the cost of instituting appropriately targeted intervention programs when children are young.

5.08.7 ACKNOWLEDGMENTS

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5.08.8 REFERENCES

Abramson, L. Y., Seligman, M. E. P., & Teasdale, J. D. (1978). Learned helplessness in humans: Critique and reformulation. *Journal of Abnormal Psychology, 87,* 49-74.

Alexander, J. F., & Parsons, B. V. (1973). Short-term behavioral intervention with delinquent families: Impact on family process and recidivism. *Journal of Abnormal Psychology, 1,* 219-225.

Alexander, J. F., Waldron, H., Newberry, A. M., & Liddle,

N. (1988). Family approaches to treating adolescents. In F. M. Cox, C. Chilman, & E. Nunnally (Eds.), *Families in trouble*. New York: Sage.

Anastopoulos, A. D., Barkley, R. A., & Sheldon, T. L. (1996). Family based treatment: Psychosocial intervention for children and adolescents with attention deficit hyperactivity disorder. In E. D. Hibbs & P. S. Jensen (Eds.), *Psychosocial treatments for child and adolescent disorders: Empirically based strategies for clinical practice* (pp. 267-285). Washington, DC: American Psychological Association.

Anderson, K. E., Lytton, H., & Romney, D. M. (1986). Mothers' interactions with normal and conduct-disordered boys: Who affects whom? *Developmental Psychology, 22,* 604-609.

Arnold, J. E., Levine, A. G., & Patterson, G. R. (1975). Changes in sibling behavior following family intervention. *Journal of Consulting and Clinical Psychology, 43,* 683-688.

Asarnov, J. R., & Callan, J. W. (1985). Boys with peer adjustment problems: Social cognitive processes. *Journal of Consulting and Clinical Psychology, 53,* 80-87.

Baer, D. M., Wolf, M. M., & Risely, T. R. (1968). Some current dimensions of applied behavior analyses. *Journal of Applied Behavior Analyses, 1,* 91-97.

Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice-Hall.

Bandura, A. (1982). Self-efficacy mechanisms in human agency. *American Psychologist, 84,* 191-215.

Barkley, R. A. (1996). Attention deficit/hyperactivity disorder. In E. J. Mash & R. A. Barkley (Eds.), *Child psychopathology* (pp. 63-112). New York: Guilford Press.

Barrett, P. M., Dadds, M. R., & Rapee, R. M. (1993). *Family Intervention for Childhood Anxiety: A Controlled Trial*. Paper presented at the 27th Annual Convention of the Association for Advancement of Behavior Therapy, Atlanta, GA.

Baum, C. G., Reyna-McGlone, C. L., & Ollendick, T. H. (1986). *The efficacy of behavioral parent training: Behavioral Parent Training Plus Clinical Self-control Training, and a Modified STEP Program for Children Referred with Noncompliance*. Paper presented at the meeting of the Association for Advancement of Behavior Therapy, Chicago.

Baumrind, D. (1971). Current patterns of parental authority. *Psychology Monographs, 1,* 1-102.

Biglan, A. (1993). *A functional contextualist framework for community intervention*. Reno, NV: Context Press.

Bowlby, J. (1980). *Attachment and loss: Loss, sadness, and depression*. New York: Basic Books.

Breiner, J., & Forehand, R. (1982). Mother-child interactions: A comparison of a clinic-referred developmentally delayed group and two non-delayed groups. *Applied Research in Mental Retardation, 3*(2), 175-183.

Campbell, S. (1995). Behavior problems in preschool children: A review of recent research. *Journal of Child Psychology and Psychiatry & Allied Disciplines, 36*(1), 113-149.

Campbell, S. B. (1991). Longitudinal studies of active and aggressive preschoolers: Individual differences in early behavior and outcome. In D. Cichetti & S. L. Toth (Eds.), *Rochester symposium on developmental psychopathology* (pp. 57-90). Hillsdale, NJ: Erlbaum.

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*(6), 871-889.

Capaldi, D. M., & Patterson, G. R. (1994). Interrelated influences of contextual factors on antisocial behavior in childhood and adolescence for males. In D. C. Fowles, P. Sutker, & S. H. Goodman (Eds.), *Progress in experimental personality and psychopathology research* (pp. 165-198). New York: Springer.

Caspi, A., & Moffitt, T. E. (1995). The continuity of maladaptive behavior: From description to understanding in the study of antisocial behavior. In D. Cicchetti & D. J. Cohen (Eds.), *Developmental psychopathology* (Vol. 2, pp. 472-511). New York: Wiley.

Cassidy, J., & Marvin, R. S. (1992). *Attachment organization in preschool children: Procedures and coding manual*. Unpublished manuscript.

Cohen, S., & Willis, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin, 98,* 310-357.

Coughlin, E. K. (1995). American's dilemma. *The Chronicle of Higher Education, 42*(2), 10-11.

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

Crick, N. R., & Dodge, K. A. (1994). A review and reformulation of social information processing mechanisms in children's social adjustment. *Psychological Bulletin, 115,* 74-101.

Cross Calvert, S., & McMahon, R. J. (1987). The treatment acceptability of a behavioral parent training program and its components. *Behavior Therapy, 18,* 165-179.

Crowther, J. K., Bond, L. A., & Rolf, J. E. (1981). The incidence, prevalence, and severity of behavior disorders among preschool-aged children in day care. *Journal of Abnormal Child Psychology, 9,* 23-42.

Cummings, E. M., Ballard, M., El-Sheikh, M., & Lake, M. (1991). Resolution and children's responses to interadult anger. *Developmental Psychology, 27,* 462-470.

Cummings, E. M., & Davies, P. (1994). *Children and marital conflict*. New York: Guilford Press.

Cummings, E. M., Simpson, K. S., & Wilson, A. (1993). Children's responses to interadult anger as a function of information about resolution. *Developmental Psychology, 29,* 978-985.

Cummings, E. M., & Zahn-Waxler, C. (1992). *Emotions and the socialization of aggression: Adults' angry behavior and children's arousal and aggression*. New York: Springer.

Cummings, J. S., Pellegrinia, D. S., Notarius, C. I., & Cummings, E. M. (1989). Children's responses to angry adult behavior as a function of marital distress and history of interparent hositility. *Child Development, 60,* 1035-1043.

Cunningham, C. E., Bennes, B. B., & Siegel, L. (1988). Family functioning, time allocation, and parental depression in families of normal and ADDH children. *Journal of Clinical Child Psychology, 17,* 169-179.

Cunningham, C. 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 and Psychiatry, 36,* 1141-1159.

Dadds, M. R., & McHugh, T. (1992). Social support and treatment outcome in behavioral family therapy for child conduct problems. *Journal of Consulting and Clinical Psychology, 60,* 252-259.

Dadds, M. R., Schwartz, M. R., & Sanders, M. R. (1987). Marital discord and treatment outcome in behavioral treatment of child conduct disorders. *Journal of Consulting and Clinical Psychology, 16,* 192-203.

Daro, D. (1988). *Confronting child abuse: Research for effective program design*. London: Free Press.

Denham, S. A. (1989). Maternal affect and child's social emotional competence. *American Journal of Orthopsychiatry, 59,* 368-376.

Denham, S. A., Zoller, D., & Couchold, E. A. (1994). Socialization of preschoolers' emotion understanding. *Developmental Psychology, 30,* 928-936.

Dishion, T. J., French, D. C., & Patterson, G. R. (1995).

The development and ecology of antisocial behavior. In D. Cicchetti & D. J. Cohen (Eds.), *Developmental psychopathology. Vol 2: Risk disorder and adaptation* (pp. 421-471). New York: Wiley.

Dishion, T. J., Patterson, G. R., & Kavanagh, K. (1992). *An experimental test of the coercion model: Linking theory, measurement, and intervention*. New York: Guilford Press.

Dodge, K. A., & Newman, J. P. (1981). Biased decision-making processes in aggressive boys. *Journal of Abnormal Psychology, 90*(4), 375-379.

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

Dumas, J. E., & Albin, J. B. (1986). Parent training outcome: Does active parental involvement matter? *Behavior Research and Therapy, 24*(2), 227-230.

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

D'Zurilla, T. J., & Nezu, A. (1982). Social problem-solving in adults. In P. C. Kendall (Ed.), *Advances in cognitive behavioral research and therapy* (Vol. 1). New York: Academic Press.

Egeland, B., Kalkoske, M., Gottesman, N., & Erickson, M. F. (1990). Preschool behavior problems: Stability and factors accounting for change. *Journal of Child Psychology and Psychiatry, 31,* 891-909.

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. (1992). Assessing therapy outcome with preschool children: Progress and Problems. *Journal of Clinical Child Psychology, 21*(3), 306-311.

Eyberg, S.M., & Boggs, S. R. (1989). Parent training for oppositional-defiant preschoolers. In C. E. Schaeffer & J. M. Brienmeister (Eds.), *Handbook of parent training* (pp. 105-132). New York: Wiley.

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

Fantuzzo, J. W., DePaola, L. M., Lambert, L., Martino, T., Anderson, G., & Sutton, S. (1991). Effects of interpersonal violence on the psychological adjustment and competencies of young children. *Journal of Consulting and Clinical Psychology, 59,* 258-265.

Faraone, S. V., Biederman, J., Keenan, K., & Tsuang, M. T. (1991). Separation of *DSM-III* attention deficit disorder and conduct disorder: Evidence from a family genetic study of American child psychiatry patients. *Psychological Medicine, 21,* 1091-1121.

Feshbach, N. (1989). The construct of empathy and the phenomenon of physical maltreatment of children. In D. Cicchetti & V. Carlson (Eds.), *Child maltreatment: Theory and research on the causes and consequences of child abuse and neglect* (pp. 349-373). Cambridge, MA: Cambridge University Press.

Fisher, M., Rolf, J. E., Hasazi, J. E., & Cummings, L. (1984). Follow-up of a preschool epidemiological sample: Cross-age continuities and predictions of later adjustment with internalizing and externalizing dimensions of behavior. *Child Development, 55,* 137-150.

Fleischman, M. J. (1981). A replication of Patterson's "Intervention for boys with conduct problems." *Journal of Consulting and Clinical Psychology, 49,* 342-351.

Folkman, S., & Lazarus, R. S. (1988). Coping as a mediator of emotion. *Journal of personality and Social Psychology, 54*(3), 466-475.

Forehand, R., Breiner, J., McMahon, R. J., & Davies, G. (1981). Predictors of cross setting behavior change in the treatment of child problems. *Journal of Behavior Therapy and Experimental Psychiatry, 12*(4), 311-313.

Forehand, R., & Furey, W. M. (1985). Predictors of depressive mood in mothers of clinic-referred children. *Behavior Research and Therapy, 23*(4), 415-421.

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

Forehand, R., & Kotchick, B. A. (1996). Cultural diversity: a wake -up call for parent training. *Behavior Therapy, 27,*187-206.

Forehand, R., & Long, N. (1986). *A long-term follow-up of parent training participants.* Unpublished conference proceedings, Chicago.

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

Forehand, R., Rogers, T., McMahon, R. J., Wells, K. C., & Griest, D. L. (1981). Teaching parents to modify child behavior problems: An examination of some follow-up data. *Journal of Pediatric Psychology, 6*(3), 313-322.

Forehand, R., Steffe, M. A., Furey, W. A., & Walley, P. B. (1983). Mother's evaluation of a parent training program completed three and one-half years earlier. *Journal of Behavior Therapy and Experimental Psychiatry, 14,* 339-342.

Forehand, R., Sturgis, E. T., McMahon, R. J., Aguar, D., Green, K., Wells, K., & Breiner, J. (1979). Parent behavioral training to modify child noncompliance: Treatment generalization across time and from home to school. *Behavior Modification, 3,* 3-25.

Forehand, R., Wells, K., & Griest, D. L. (1980). An examination of the social validity of a parent training program. *Behavior Therapy, 11,* 488-502.

Forgatch, M. (1989). Patterns and outcome in family problem solving: The disrupting effect of negative emotion. *Journal of Marriage and the Family, 5*(1), 115-124.

Forgatch, M., Patterson, G., & Skinner, M. (1988). A mediational model for the effect of divorce in antisocial behavior in boys. In E. M. Hetherington & J. D. Arasteh (Eds.), *The impact of divorce, single parenting and stepparenting on children* (pp. 135-154). Hillsdale, NJ: Lawrence Erlbaum Associates.

Frick, P. J., & Jackson, Y. K. (1993). Family functioning and childhood antisocial behavior: Yet another reinterpretation. *Journal of Clinical Child Psychology, 22,* 410-419.

Frick, P. J., Kuper, K., Silverthorn, P., & Cotter, M. (1995). Antisocial behavior, somatization, and sensation-seeking behavior in mothers of clinic-referred children. *Journal of American Academy of Child and Adolescent Psychiatry, 34*(6), 805-812.

Frick, P. J., Lahey, B. B., Loeber, R., Stouthamer-Loeber, M., Christ, M. A., & Hanson, K. (1992). Familial risk factors to oppositional defiant disorder and conduct disorder: Parental psychopathology and maternal parenting. *Journal of Consulting and Clinical Psychology, 60,* 49-55.

Gecas, V. (1979). The influence of social class on socialization. In W. Bum (Ed.), *Contemporary theories about the family*. New York: Free Press.

Goutz, K. (1981). Children's initial aggression level and the effectiveness of intervention strategies in moderating television effects on aggression. In K. R. Goutz (Ed.), *Attention and social problem-solving as correlates of aggression in preschool males* (pp. 181-197).

Greenberg, M. T., Speltz, M. L., & DeKlyen, M. (1993). The role of attachment in the early development of disruptive behavior problems. *Development and Psychopathology, 5,* 191-213.

Griest, D. L., Forehand, R., Rogers, T., Breiner, J., Furey, W., & Williams, C. A. (1982). Effects of parent

enhancement therapy on the treatment of outcome and generalization of a parent training program. *Behaviour Research and Therapy, 20*(5), 429-436.

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, 89*(3), 497-500.

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

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

Grych, J. H., & Finchman, F. D. (1990). Marital conflict and children's adjustment: A cognitive contextual framework. *Psychological Bulletin, 108,* 267-290.

Grych, J. H., & Finchman, F. D. (1992). Interventions for children of divorce: Toward greater integration of research and action. *Psychological Bulletin, 111,* 434-454.

Haley, J. (1976). *Problem-solving therapy*. New York: Colophon Books.

Hanf, C. (1970). *Shaping mothers to shape their children's behavior*. Portland, OR: University of Oregon Medical School.

Harkness, S., & Super, C. M. (1995). Culture and parenting. In M.H. Bornstein (Ed.), *Handbook of parenting: Biology and ecology of parenting* (Vol. 2, pp. 211-234). Mahwah, NJ: Lawrence Erlbaum.

Hashima, P. Y., & Amato, P. R. (1994). Poverty, social support, and parental behavior. *Child Development, 65,* 394-403.

Hawkins, J. D., Catalano, R. F., & Miller, Y. (1992). Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for substance abuse prevention. *Psychological Bulletin, 112,* 64-105.

Hay, D. F., Zahn-Waxler, C., Cummings, E. M., & Iannotti, R. J. (1992). Young children's views about conflict with peers: A comparison of the daughters and sons of depressed and well women. *Journal of Child Psychology and Psychiatry, 33,* 669-684.

Hembree-Kigin, T. L., & McNeil, C. B. (1995). *Parent-child interaction therapy*. New York: Plenum.

Henggler, S. W., Borduin, C. M., & Mann, B. J. (1993). Advances in family therapy: Empirical foundations. *Advances in Clinical Child Psychology, 15,* 207-241.

Hetherington, E. M., Cox, M., & Cox, R. (1982). *Effects of divorce on parents and children*. Hillsdale, NJ: Erlbaum.

Hinshaw, S. P., & Anderson, C. A. (1996). Conduct and oppositional defiant disorders. In E.J. Mash & R.A. Barkley (Eds.), *Child Psychopathology*. New York: Guilford Press.

Hoffman, L. W. (1984). Work, family, and socialization of the child. In R. Parke, R. Emde, H. McAdoo, & G. Sackett (Eds.), *Review of child development research: The family,* (Vol. 7). Chicago: University of Chicago Press.

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

Huesmann, L. R., Eron, L. D., Lefkowitz, M. M., & Walder, L. O. (1984). Stability of aggression over time and generations. *Developmental Psychology, 20,* 1120-1134.

Hutchings, B., & Mednick, S.A. (1977). Criminality in adoptees and their adoptive and biological parents: A pilot study. In S. A. Mednick & K. O. Christiansen (Eds.), *Biosocial bases of criminal behavior*. New York: Gardner Press.

Jennings, K. D., Stagg, V., & Conners, R. E. (1991). Social networks and mother interactions with their preschool children. *Child Development, 62,* 966-978.

Johnson, S. M., & Lovitz, G. K. (1974). The personal and marital adjustment of parents as related to observed child deviance and parenting behaviors. *Journal of Abnormal Child Psychology, 2,* 193-207.

Jouriles, E. N., Murphy, C. M., Farris, A. M., Smith, D. A., Richters, J. E., & Waters, E. (1991). Marital adjustment, parental disagreements about child rearing, and behavior problems in boys: Increasing the specificity of the marital assessment. *Child Development, 62,* 1424-1433.

Jouriles, E. N., Murphy, C. M., & O'Leary, K. D. (1989). Interspousal aggression, marital discord, and child problems. *Journal of Consulting and Clinical Psychology, 57*(3), 453-455.

Katz, L. F., & Gottman, J. M. (1994). Patterns of marital interaction and children's emotional development. In R. D. Parke & S. G. Kellam (Eds.), *Exploring family relationships with other social contexts* (pp. 49-74). Hillsdale, NJ: Lawrence Erlbaum.

Kazdin, A. (1985). *Treatment of antisocial behavior in children and adolescents*. Homewood, IL: Dorsey Press.

Kazdin, A. E. (1987). Treatment of antisocial behavior in children: Current status and future directions. *Psychological Bulletin, 102*(2), 187-203.

Kazdin, A. E., & Kolko, D. J. (1986). Parent psychopathology and family functioning among childhood firesetters. *Journal of Abnormal Child Psychology, 14*(2), 315-329.

Kazdin, A., & 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., Siegel, J. C., & Bass, D. (1992). Cognitive problem-solving skills training and parent management training in the treatment of antisocial behavior in children. *Journal of Consulting and Clinical Psychology, 60,* 733-747.

Kendall, P. C. (1992). Childhood coping: Avoiding a lifetime of anxiety. *Behavior Change, 3,* 70-73.

King, N. J., Hamilton, D. I., & Ollendick, T. H. (1988). *Children's fears and phobias: A behavioral perspective*. Chichester, UK: Wiley.

Kochansaka, G., Kuczynski, L., Radke-Yarrow, M., & Welsh, J. D. (1987). Resolution of control episodes between well and affectively ill mothers and their young child. *Journal of Abnormal Child Psychology, 15,* 441-456.

Lahey, B. B., Hart, E. L., Pliszka, S., Applegate, B., & McBurnett, K. (1993). Neurophysiological correlates of conduct disorder: A rationale and review of current research. *Journal of Clinical Child Psychology, 22,* 141-153.

Lahey, B. B., Hartdagen, W. E., Frick, P. J., McBurnett, K., Connor, R., & Hynd, G. W. (1988). Conduct disorder: Parsing the confounded relationship between parental divorce and antisocial personality. *Journal of Abnormal Psychology, 97,* 334-337.

Lahey, B. B., Loeber, R., Hart, E., & Frick, P. J. (1995). Four-year longitudinal study of conduct disorder in boys: Patterns and predictors of persistence. *Journal of Abnormal Psychology, 104*(1), 83-89.

Lahey, B. B., Loeber, R. L., Quay, H. C., Frick, P. J., & Grimm, J. (1992). Oppositional defiant and conduct disorders: Issue to be resolved for DSM-IV. *Journal of the American Academy of Child and Adolescent Psychiatry, 31*(3).

Landy, S., & Peters, R. D. (1991). Understanding and treating the hyperaggressive toddler. *Zero to Three, February,* 22-31.

Laski, K., Charlop, M. H., & Schreibman, L. (1988). Training parents to use the natural language paradigm to

increase their autistic children's speech. *Journal of Applied Behavioral Analyses, 21,* 391-400.

Loeber, R. (1991). Antisocial behavior: More enduring than changeable? *Journal of the American Academy of Child and Adolescent Psychiatry, 30,* 393-397.

Lutzker, J. R. (1992). Developmental disabilities and child abuse and neglect: The ecobehavioral imperative. *Behavior Change, 9,* 149-156.

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

Main, M., & Cassidy, J. (1987). *Reuion-based classifications of child-parent attachment organization at six-years of age*. Unpublished manuscript, University of California at Berkley.

McCord, J., McCord, W., & Thurber, E. (1962). Some effects of paternal absence on male children. *Journal of Abnormal and Social Psychology, 64,* 361-369.

McLoyd, V. C. (1990). The impact of economic hardship on black families and children: Psychological distress, parenting, and socioemotional development. *Child Development, 61,* 311-346.

McMahon, R. J., & Forehand, R. (1984). Parent training for the noncompliant child: Treatment outcome, generalization, and adjunctive therapy procedures. In R. F. Dangel & R. A. Polster (Eds.), *Parent training: Foundations of research and practice* (pp. 298-328). New York: Guilford Press.

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

Meichenbaum, D., & Turk, D. (1987). *Facilitating treatment adherence: A practitioner's guidebook*. New York: Plenum.

Milich, R., & Dodge, K. A. (1984). Social information processing in child psychiatric populations. *Journal of Abnormal Child Psychology, 12*(3), 471-489.

Miller, G. E., & Prinz, R. J. (1990). Enhancement of social learning family interventions for childhood conduct disorder. *Psychological Bulletin. 108,* 291-307.

Minuchin, S. (1974). *Families and family therapy*. Cambridge, MA: Harvard University Press.

Offord, D. R., Alder, R. J., & Boyle, M. H. (1986). Prevalence and sociodemographic correlates of conduct disorder. *American Journal of Social Psychiatry, 6,* 272-278.

Offord, D. R., Boyle, M. H., & Szatmari, P. (1987). Ontario Child Health Study II: Six month prevalence of disorder and rates of service utilization. *Archives of General Psychiatry, 44,* 832-836.

O'Leary, K. D., & Emery, R. E. (1982). Marital discord and child behavior problems. In M. D. Levine & P. Satz (Eds.), *Middle childhood: Developmental variation and dysfunction* (pp. 345-364). New York: Academic Press.

Oltmanns, T. F., Broderick, J. E., & O'Leary, K. D. (1977). Marital adjustment and the efficacy of behavior therapy with children. *Journal of Consulting and Clinical Psychology, 45,* 724-729.

Patterson, G. R. (1975). *Families: Applications of social learning to family life*. Champaign, IL: Research Press.

Patterson, G. R. (1976). *Living with children: New methods for parents and teachers*. Champaign, IL: Research Press.

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

Patterson, G. R. (1986). Performance models for antisocial boys. *American Psychologist, 41*(4), 432-444.

Patterson, G. R., & Chamberlain, P. (1988). Treatment process: A problem at three levels. In L. C. Wynne (Ed.), *The state of art in family therapy research: Controversies and recommendations* (pp. 189-223). New York: Family Process Press.

Patterson, G. R., Chamberlain, P., & Reid, J. B. (1982). A comparative evaluation of a parent training program. *Behavior Therapy, 13,* 638-650.

Patterson, G. R., Cobb, J. A., & Ray, R. S. (1973). A social engineering technology for retraining the families of aggressive boys. In H. E. Adams & I. P. Unike (Eds.), *Issues and trends in behavior therapy* (pp. 139-210). Springfield, IL: Thomas.

Patterson, G. R., DeBaryshe, B. D., & Ramsey, E. (1989). A developmental perspective on antisocial behavior. *American Psychologist, 44*(2), 329-335.

Patterson, G. R., Dishion, T. J., & Chamberlain, P. (1993). *Outcomes and methodological issues relating to the treatment of antisocial children*. New York: Plenum.

Patterson, G. R., & Fleischman, M. J. (1979). Maintenance of treatment effects: Some considerations concerning family systems and follow-up data. *Behavior Therapy, 10,* 168-185.

Patterson, G. R., & Forgatch, M. S. (1985). Therapist behavior as a determinant for client noncompliance: A paradox for the behavior modifier. *Journal of Consulting and Clinical Psychology, 53*(6), 846-851.

Patterson, G. R., & Forgatch, M. S. (1995). Predicting future clinical adjustment from treatment outcome and process variables. *Psychological Assessment, 7*(2), 275-285.

Patterson, G. R., & Narrett, C. M. (1990). The development of a reliable and valid treatment programs for aggressive young children. *International Journal of Mental Health, 19,* 19-26.

Patterson, G. R., & Reid, J. B. (1973). Intervention for families of aggressive boys: A replication study. *Behaviour Research and Therapy, 11,* 383-394.

Patterson, G. R., Reid, J. B., Jones, R. R., & Conger, R. W. (1975). *A social learning approach to family intervention* (Vol. 1). Eugene, OR: Castalia.

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

Porter, B., & O'Leary, K. D. (1980). Marital discord and childhood behavior problems. *Journal of Abnormal Child Psychology, 16,* 97-109.

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

Quay, H. C. (1993). The psychopathology of undersocialized aggressive conduct disorder: A theoretical perspective. *Development and Psychopathology, 5,* 165-180.

Radke-Yarrow, M. (1991). Attachment patterns in children of depressed mothers. In C. M. Parke, J. Stevenson-Hinde, & P. Marris (Eds.), *Attachment across the life cycle*. London: Routledge.

Reid, J. B. (1987). *Therapeutic interventions in the families of aggressive children and adolescents,* Paper presented at the meeting of the Oreganizzato dalle Cattedre di Psicologia Clinica e delle Teorie di Personalita dell'Universita di Roma, Rome.

Richman, N., Stevenson, L., & Graham, P. J. (1982). *Preschool to school: A behavioural study*. London: Academic Press.

Richters, J. E., & Martinez, P. E. (1993). Violent communities, family choices, and children's chances: An algorithm for improving the odds. *Development and Psychopathology, 5,* 609-627.

Rickard, K. M., Forehand, R., Wells, K. C., Griest, D. L., & McMahon, R. J. (1981). Factors in the referral of children for behavioral treatment: A comparison of mothers of clinic-referred deviant, clinic-referred nondeviant and non-clinic children. *Behavior Research and Therapy, 19*(3), 201-205.

Robbins, M. S., Alexander, J. F., Newell, R. M., & Turner,

C. W. (1996). The immediate effect of reframing on client attitude in family therapy. *Journal of Family Psychology, 10*(1), 28-34.

Robins, L. N. (1981). Epidemiological approaches to natural history research: Antisocial disorders in children. *Journal of the American Academy of Child Psychiatry, 20,* 566-580.

Rogers, T. R., & Forehand, R. (1983). The role of depression in interactions between mothers and their clinic-referred children. *Cognitive Therapy and Research, 46,* 315-324.

Rose, S. L., Rose, S. A., & Feldman, J. (1989). Stability of behavior problems in very young children. *Development and Psychopathology, 1,* 5-20.

Rubin, K. H., & Krasnor, L. R. (1986). Social-cognitive and social behavioral perspectives on problem-solving. In M. Perlmutter (Ed.), *Cognitive perspectives on children's social and behavioral development, The Minnesota Symposia on Child Psychology* (Vol. 18, pp. 1-68). Hillsdale, NJ: Lawrence Erlbaum Associates.

Rutter, M. (1986). *The developmental psychopathology of depression: Issues and perspectives*. New York: Guilford Press.

Rutter, M., & Giller, H. (1983). *Juvenile delinquency: Trends and perspectives*. Harmondsworth, UK: Penguin.

Rutter, M., Yule, B., Quinton, D., Rowlands, O., Yule, W., & Berger, M. (1974). Attainment and adjustment in two geographic areas: Some factors accounting for area differences. *British Journal of Psychiatry, 126,* 520-533.

Sanders, M. R. (1996). New directions in behavioral family intervention with children. In T. H. Ollendick & R. J. Prinz (Eds.), *Advances in clinical child psychology* (Vol. 18, pp. 283-320). New York: Plenum Press.

Sayger, T. V., Horne, A. M., & Glaser, B. A. (1993). Marital satisfaction and social learning family therapy for child conduct problems: Generalization of treatment effects. *Journal of Marital and Family Therapy, 19,* 393-402.

Sayger, T. V., Horne, A. M., Walker, J. M., & Passmore, J. L. (1988). Social learning family therapy with aggressive children: Treatment outcome and maintenance. *Journal of Family Psychology, 1,* 261-285.

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.

Schmaling, K. B., & Jacobson, N. S. (1987). *The clinical significance of treatment gains resulting from parent training interventions for children with conduct problems: An analysis of outcome data*. Paper presented at the meeting of the Association for the Advancement of Behavior Therapy, Boston.

Schreibman, L., Kaneko, W. M., & Koegel, R. L. (1991). Positive effects of parents of autistic children: A comparison across two teaching techniques. *Behavior Therapy, 22,* 479-490.

Seligman, M. E. P. (1975). *Helplessness*. San Francisco: Freeman.

Slaby, R., & Guerra, N. (1988). Cognitive mediators of aggression in adolescent offenders: 1. Assessment. *Development Psychology, 24,* 580-588.

Smith, A. M., & O'Leary, S. G. (1995). Attributions and arousal as predictors of maternal discipline. *Cognitive Therapy and Research, 19*(4), 459-471..

Speiker, S. J., & Booth, C. L. (1988). Maternal antecedants of attachment quality. In J. Belsky & T. Nnezworski (Eds.), *Clinical implications of attachment* (pp. 95-134). Hillsdale, NJ: Erlbaum.

Spitzer, A., Webster-Stratton, C., & Hollinsworth, T. (1991). Coping with conduct-problem children: Parents gaining knowledge and control. *Journal of Clinical Child Psychology, 20,* 413-427.

Spivak, G., Platt, J. J., & Shure, M. B. (1976). *The problem solving approach to adjustment*. San Francisco: Jossey-Bass.

Spoth, R., & Redmond, C. (1995). Parent motivation to enroll in parenting skills programs: A model of family context and health belief predictors. *Journal of Family Psychology, 9,* 294-310.

Strain, P. S., Steele, P., Ellis, T., & Timm, M. A. (1982). Long-term effects of oppositional child treatment with mothers as therapists and therapist trainers. *Journal of Applied Behavior Analysis, 15,* 1163-1169.

Straus, M. A., & Gelles, R. (1986). Societal change and change in family violence from 1975-1985 as revealed by two national surveys. *Journal of Marriage and the Family, 48,* 465-479.

Strayhorn, J. M., & Weidman, C. S. (1989). Reduction of attention deficit and internalizing symptoms in preschoolers through parent-child interaction training. *Journal of the American Academy of Child and Adolescent Psychiatry, 28,* 888-896.

Stroufe, L. A., & Fleeson, J. (1986). Attachment and the construction of relationships. In W. Hartup & Z. Rubin (Eds.), *Relationships and development* (pp. 51-71). Hillsdale, NJ: Erlbaum.

Taylor, T. K., Schmidt, F., & Hodgins, C. (1996). *A comparison of two treatments on young conduct problem children*. Paper presented at the American Psychological Association, Toronto, Canada.

Teti, D. M., Gelfand, D. M., & Messinger, D. S. (1995). *Developmental Psychology, 31,* 364-376.

Trickett, P. K., Aber, J. L., Carlson, V., & Cicchetti, D. (1991). Relationship of socioeconomic status to the etiology and developmental sequelae of physical child abuse. *Developmental Psychology, 27,* 148-158.

Wahler, R. G. (1975). Some structural aspects of deviant child behavior. *Journal of Applied Behavioral Analysis, 8,* 27-42.

Wahler, R. G. (1976). Deviant child behavior within the family: Developmental speculations and behavior change strategies. In H. Leitenberg (Ed.), *Handbook of behavior modification and behavior therapy*. Englewood Cliffs, NJ: Prentice-Hall.

Wahler, R. G. (1980). The insular mother: Her problems in parent-child treatment. *Journal of Applied Behavior Analysis, 13*(2), 207-219.

Wahler, R. G., & Afton, A. D. (1980). Attentional processes in insular and noninsular Mothers. *Child Behavior Therapy, 2,* 25-41.

Wahler, R. G., Cartor, P. G., Fleischman, J., & Lambert, W. (1993). The impact of synthesis teaching and parent training with mothers of conduct disordered children. *Journal of Abnormal Child Psychology, 12,* 425-440.

Wahler, R. G., & Dumas, J. E. (1984). Changing the observational coding styles of insular and noninsular mothers: A step toward maintenance of parent training effects. In R. F. Dangel & R. A. Polster (Eds.), *Parent training: Foundations of research and practice* (pp. 379-416). New York: Guilford Press.

Wahler, R. G., & Dumas, J. E. (1989). Attentional problems in dysfunctional mother-child interactions: An interbehavioral model. *Psychological Bulletin, 105,* 116-130.

Wahler, R. G., & Fox, J. J. (1982). Response structure in deviant child-parent relationships: Implications for family therapy. *Nebraska Symposium on Motivation, 29*(1), 1-46.

Wahler, R. G., & Sansbury, L. E. (1990). The monitoring skills of troubled mothers: Their problems in defining child deviance. *Journal of Abnormal Child Psychology, 18*(5), 577-589.

Walker, J. L., Lahey, B. B., Hynd, G. W., & Frame, C. L. (1987). Comparison of specific patterns of antisocial behavior in children with conduct disorder with or

without coexisting hyperactivity. *Journal of Consulting and Clinical Psychology, 55*(6), 910-913.

Webster-Stratton, C. (1981a). Modification of mothers' behaviors and attitudes through videotape modeling group discussion program. *Behavior Therapy, 12,* 634-642.

Webster-Stratton, C. (1981b). Videotape modeling: A method of parent education. *Journal of Clinical Child Psychology, 10*(2), 93-98.

Webster-Stratton, C. (1982a). The long term effects of a videotape modeling parent training program: Comparison of immediate and 1-year followup results. *Behavior Therapy, 13,* 702-714.

Webster-Stratton, C. (1982b). Teaching mothers through videotape modeling to change their children's behaviors. *Journal of Pediatric Psychology, 7*(3), 279-294.

Webster-Stratton, C. (1984). Randomized trial of two parent-training programs for families with conduct-disordered children. *Journal of Consulting and Clinical Psychology, 52*(4), 666-678.

Webster-Stratton, C. (1985a). The effects of father involvement in parent training for conduct problem children. *Journal of Child Psychology and Psychiatry, 26*(5), 801-810.

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

Webster-Stratton, C. (1988). Mothers' and fathers' perceptions of child deviance: Roles of parent and child behaviors and parent adjustment. *Journal of Consulting and Clinical Psychology, 56*(6), 909-915.

Webster-Stratton, C. (1989). Systematic comparison of consumer satisfaction of three cost-effective parent training programs for conduct problem children. *Behavior Therapy, 20,* 103-115.

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*(2), 144-149.

Webster-Stratton, C. (1990b). Stress: A potential disruptor of parent perceptions and family interactions. *Journal of Clinical Child Psychology, 19*(4), 302-312.

Webster-Stratton, C. (1992a). *The incredible years: A trouble-shooting guide for parents of children ages 3-8 years*. Toronto, Canada: Umbrella Press.

Webster-Stratton, C. (1992b). Supporting your child's education: parents and children videotape-program 8. Seth Enterprises, Seattle, WA.

Webster-Stratton, C. (1994). Advancing videotape parent training: A comparison study. *Journal of Consulting and Clinical Psychology, 62*(3), 583-593.

Webster-Stratton, C. (1995). *Preventing conduct problems in Head Start children: Preliminary short term results.* Paper presented at the Society for Research in Child Development, Indianapolis, IN.

Webster-Stratton, C. (1996a). Early onset conduct problems: Does gender make a difference? *Journal of Consulting and Clinical Psychology, 64,* 540-551.

Webster-Stratton, C. (1996b). *Relationship between marital problem-solving and communication skills and child behaviors*. Unpublished manuscript, University of Washington, Seattle.

Webster-Stratton, C. (1997a). From parent training to community building. *Journal of Contemporary Services, 78,* 156-171.

Webster-Stratton, C. (1997b). Treating children with early-onset conduct problems: A comparison of child and parent training interventions. *Journal of Consulting and Clinical Psychology, 65*(1), 93-109.

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*(3), 299-315.

Webster-Stratton, C., & Hammond, M. (1990). Predictors of treatment outcome in parent training for families with conduct problem children. *Behavior Therapy, 21,* 319-337.

Webster-Stratton, C., & Hancock, L. (in press). Parent training: Content, methods and processes. In E. Schaefer (Ed.), *Parent training*. New York: Wiley.

Webster-Stratton, C., & Herbert, M. (1993). What really happens in parent training? *Behavior Modification, 17*(4), 407-456.

Webster-Stratton, C., & Herbert, M. (1994). *Troubled families-Problem children: Working with parents: A collaborative process*. Chichester, UK: Wiley.

Webster-Stratton, C., Hollinsworth, T., & Kolpacoff, M. (1989). The long-term effectiveness and clinical significance of three cost-effective training programs for families with conduct-problem children. *Journal of Consulting and Clinical Psychology, 57*(4), 550-553.

Webster-Stratton, C., Kolpacoff, M., & Hollinsworth, T. (1988). Self-administered videotape therapy for families with conduct-problem children: Comparison with two cost-effective treatments and a control group. *Journal of Consulting and Clinical Psychology, 56*(4), 558-566.

Wells, K. C., & Egan, J. (1988). Social learning and systems family therapy for childhood oppositional disorder: Comparative treatment outcome. *Comprehensive Psychiatry, 29*(2), 138-146.

White, A. G., & Bailey, J. S. (1990). Reducing disruptive behaviors of elementary physical education students with sit and watch. *Journal of Applied Behavior Analyses, 23*(3), 353-359.