

STRATEGIES FOR HELPING EARLY SCHOOL-AGED CHILDREN WITH OPPOSITIONAL DEFIANT AND CONDUCT DISORDERS: THE IMPORTANCE OF HOME-SCHOOL PARTNERSHIPS

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Abstract: This article provides a brief review of the diagnosis, developmental progression, and etiology of oppositional defiant and early-onset conduct disorders (ODD/CD) in children. Family and school behavioral programs for helping these children are described as well as their research evaluations and a discussion of the factors related to their success or failure. Studies indicate that there are many promising and innovative interventions for helping reduce and prevent the further development of conduct disorders in young children. The preschool and early school grades appear to be a particularly strategic time for early identification and intervention/prevention programs to facilitate children's social competence and conflict resolution skills. However, the most successful programs will be those which target multiple symptoms of ODD/CD across risk factors, multiple settings (home and school), and agents (parents, teachers, and children). Active partnerships between parents and schools must take place for this to be effective.

Teachers typically encounter at least two or more children in their classrooms each year exhibiting persistent patterns of antisocial behavior. Such children exhibit high rates of noncompliance and defiance in response to teacher requests, aggression, and cruelty toward peers, destructive acts, smart talking, lying, stealing, running away, and cheating. The prevalence of these problems as a clinical dysfunction suggests that 4 to 10% of children in the United States (approximately 1.3 to 1.8 million cases) meet the criteria for oppositional defiant disorder (ODD) and/or conduct disorder (CD; Institute of Medicine, 1989; Rutter, Cox, Tupling, Berger, & Yule, 1975). Estimates also have indicated that child conduct disorders encompass from one-third to one-half of all child and adolescent clinic referrals (Herbert, 1987; Robins, 1981). Moreover, the prevalence of these behav-

ioral disorders is increasing, creating a need for service that far exceeds available resources and personnel. Some have suggested that fewer than 10% of children demonstrating such problems actually receive mental health services (Hobbs, 1982).

The need for intervention programs for families with children having ODD and CD is particularly urgent since these "aggressive" children are at increased risk for being rejected by their peers (Coie, 1990a) and/or abused by their parents (Reid, Taplin, & Loeber, 1981). Evidence also exists that parents and siblings are abused by youngsters with conduct disorders (Herbert, 1991). Research has indicated that a high rate of childhood aggression, even in children as young as age 3, is fairly stable over time (Robins, 1981). This contrasts with other childhood disorders (e.g., fears) that are age-specific

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and usually remit over the course of development. Richman, Stevenson, and Graham (1982) found that 67% of children with externalizing problems at age 3 continued to be aggressive at age 8. Early forms of CD are predictive of problems later in life such as school dropout, alcoholism, drug abuse, juvenile delinquency, adult crime, antisocial personality, marital disruption, interpersonal problems, and poor physical health (Kazdin, 1985). Thus, in the absence of treatment, the long-term outlook for children with CD is poor. Moreover, this mental disorder is probably one of the most costly to society (Robins, 1981) because such a large proportion of antisocial children continually pass through the revolving door of mental health agencies and criminal justice systems.

DIAGNOSIS AND DEVELOPMENTAL PROGRESSION

Diagnosis

According to the DSM-III-R (American Psychiatric Association [APA], 1987), externalizing behavior problems are referred to collectively as "Disruptive Behavior Disorders." There are three subgroups related to this larger category: oppositional defiant disorder (ODD), attention deficit hyperactivity disorder (ADHD), and conduct disorder (CD). As conduct disorder is rarely diagnosed before age 6, most young preschool children with externalizing symptoms fit the criteria for ODD, ADHD, or a combination of the two disorders. The criteria for the diagnosis of conduct disorder requires a disturbance lasting for at least 6 months during which three of the following symptoms are present: physical cruelty towards people or animals, stealing or breaking and entering, lying and cheating in games or in schoolwork, aggression towards others often including a weapon, destruction of property, deliberate fire setting, truancy from school, and running away from home at least twice (APA, 1987).

Co-morbidity

There seems to be considerable diagnostic ambiguity between CD, ODD, and ADHD in the young preschool and early school-age group as well as true comorbidity (i.e., hyperactive, impulsive, inattentive children have externalizing problems). Current reports suggest that as many as 75% of children identified as having attention deficit disorder with hyperactivity (ADHD), also can be identified to have CD (Safer & Allen, 1976). It has been proposed that hyperactivity may influence the emergence of ODD and CD. Loeber (1985) has suggested that hyperactivity is inherent in children with CD. However, careful assessment of the child may reveal that the child actually meets the criteria for one and not the other. The criteria for ADHD, CD, and ODD, although similar, are not identical and it is important that they be differentiated for both clinical and empirical reasons. Furthermore, children displaying concurrent ODD and ADHD appear to be at heightened risk for development of severe antisocial behavior than children with either single-disorder category (Walker, Lahey, Hynd, & Frame, 1988).

Developmental Progression from ODD to CD

A number of theorists have shown high continuity between disruptive and externalizing problems in the preschool years and externalizing problems in adolescents (Loeber, 1990; Rutter, 1985). Recently, developmental theorists have suggested that there may be two developmental pathways related to conduct disorders: the "early starter" versus "late starter" model (Patterson, DeBaryshe, & Ramsey, 1989). The hypothesized early onset pathway begins formally with the emergence of oppositional disorders (ODD) in early preschool and school years and progresses to aggressive and nonaggressive symptoms (e.g., lying and stealing) of conduct disorders in middle childhood, and then to the most serious symptoms by adolescence, including interpersonal violence and property

violations (Lahey, Loeber, Quay, Frick, & Grimm, 1992). In contrast, the late starter pathway first begins with symptoms of CD during adolescence after a normal history of social and behavioral development during the early school years. The prognosis for the late starter adolescents seems more favorable than for the adolescents with a chronic history of conduct disorders stemming from their preschool years. Adolescents most likely to be chronically antisocial are those who first evidenced symptoms of ODD in the preschool years followed by an early onset of CD (White, Moffit, Earls, & Robins, 1990). These early-onset CD children also account for a disproportionate share of the delinquent acts in adolescence. Thus ODD is a sensitive predictor of subsequent CD; indeed, the primary developmental pathway for serious conduct disorders in adolescence and adulthood appears to be set in the preschool and early school-age period.

Not all children with ODD become CD and not all children with CD become antisocial adults. Risk factors which contribute to the continuation of the disorder include: (a) early age of onset (preschool years), (b) breadth of deviance (across multiple settings such as home and school), (c) frequency, intensity, and chronicity of antisocial behavior, (d) diversity of antisocial behavior (several versus few problems) and covert behaviors at early ages (stealing, lying, fire setting), and (e) family and parent characteristics (Kazdin, 1987).

Given the evidence that a significant number of children who become chronically antisocial and delinquent first exhibit ODD and CD symptoms during the early school years, it is surprising there have not been more early screening and intervention studies targeted at this young age group and risk group; intervention while these children are preschoolers and in the first grade is particularly strategic. Intervention programs at this time can help teachers and parents teach such children to behave appropriately before aggressive behaviors result in peer rejection, well-established negative reputations, and school problems.

CAUSES OF THE DISORDER

It is widely accepted that multiple influences and factors contribute to the development and maintenance of ODD and CD in young children. These include: child, parent, family, and school-related factors. As other articles in this miniseries discuss these factors in detail, we will only briefly review the major categories.

Child Factors — Temperament

The "child deficit" hypothesis argues that some abnormal aspect of the child's internal organization at the physiological, neurological, and neuropsychological level — which may be genetically transmitted — is at least partially responsible for the development of externalizing behavior problems. Child temperament (e.g., activity, adaptability, mood) has perhaps been researched the most in regard to conduct problems (Thomas & Chess, 1977). Research has indicated significant correlations between early assessments of temperament characteristics such as infant difficultness, unadaptability and negative affect, and later aggressive problems (Bates, 1990; Bates, Bayles, Bennett, Ridge, & Brown, 1991). However, the amount of variance accounted for in the outcome is relatively small. Factors such as family conflict or support and quality of parent management strategies appear to interact with temperament to influence outcome. Several recent studies have shown that extreme (difficult) infant temperament in the context of favorable family conditions is not likely to increase the risk of disruptive behavior disorder at age 4 (Maziade, Cote, Bernier, Boutin, & Thivierge, 1989). In general, the findings on temperament clearly support the notion of Thomas and Chess (1977) that "no temperamental pattern confers an immunity to behavior disorder, nor is it fated to create psychopathology" (p. 4).

Child Factors — Cognitive and Social Skills Deficits

In addition to temperament, other organic factors related to cognition have

been implicated. It is suggested that children with CD distort social cues during peer interactions (Milich & Dodge, 1984). This distortion includes attributions of hostile intent during neutral situations. Aggressive children also search for fewer cues or facts when determining another's intentions (Dodge & Newman, 1981) and focus more on aggressive cues (Goutz, 1981). The child's perception of hostile intentions from others may subsequently encourage aggressive behavior. Data also exist which indicate that deficits in social problem-solving skills contribute to poor peer interactions (Asarnow & Callan, 1985). These children may generate fewer alternative solutions to social problems, seek less information, define problems in hostile ways, and anticipate fewer consequences for aggression (Richard & Dodge, 1982; Slaby & Guerra, 1988). Whether or not the aggressive child's processing of social information is a result of negative experiences with peers, parents, and teachers — or is indeed defective — is not clear.

Child Factors — Academic Deficits

Academic performance has been implicated in child conduct disorder. Low academic achievement often manifests itself in children with CD early on during the elementary grades, and continues through high school (Kazdin, 1987). Reading disabilities, language delays, and attention problems in particular are associated with conduct disorder (Sturge, 1982). One study indicated that children with CD exhibited reading deficits defined as a 29-month lag in reading ability, compared with the reading ability of normal children (Rutter, Tizard, Yule, Graham, & Whitmore, 1976). The relationship between academic performance and conduct disorder is not merely unidirectional, but is considered a bidirectional relationship. It is unclear whether disruptive behavior problems precede or follow the reading and language delay, learning difficulties, or neuropsychological deficits. However, it is clear that conduct problems and a lack of reading ability both place the child at high risk for lower self-esteem,

continued academic failure, further conduct problems, and school dropout.

Parent Factors — Parent Skills Deficits

Parenting interactions are clearly the most well-researched and most important proximal cause of conduct problems. Research has indicated that parents of children with CD lack certain fundamental parenting skills. For example, parents of such children 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 their children's behaviors; and to be more likely to reinforce inappropriate behaviors and to ignore or punish prosocial behaviors (e.g., Griest, Forehand, Wells, & McMahon, 1980; Patterson & Stouthamer-Loeber, 1984; Webster-Stratton, 1985a; Webster-Stratton & Spitzer, 1991). Patterson and colleagues have presented pioneering work on mutually aversive learning processes which subvert socialization in some families, thereby contributing to the development and maintenance of conduct disorders (Patterson, 1982, 1986). Based on a social-learning model, Patterson developed the "coercive hypothesis" which postulates that children learn to get their own way and escape (or avoid) parental criticism by escalating their negative behaviors, which in turn leads to increasingly aversive parent interactions. As this coercive training in a family continues over time, the rate and intensity of parent and child aggressive behaviors are increased. Children with CD engage in higher rates of deviant behaviors and noncompliance with parental commands than children without CD. Children with CD interacting with their mothers exhibit fewer positive verbal and nonverbal behaviors (smiles, laughs, enthusiasm, praise) than children without CD. In addition, children with CD exhibit more negative nonverbal gestures, expressions, and tones of voice in interactions with both mothers and fathers. These children have less positive affect, seem depressed, and are less reinforcing to their parents

thus setting in motion the cycle of aversive interactions with mothers as well as fathers.

Parent Psychological Factors

Parent psychopathology places the child at considerable risk for conduct disorder. Specifically, depression in the mother, alcoholism in the father, and antisocial behavior in either parent have been implicated in increasing the child's risk for CD. Maternal depression is associated with misperception of a child's behavior and influences the parenting behavior directed toward a child's misbehavior. For example, depressed mothers often increase the number of commands and criticisms they give their children. The child, in response to the increase in parent commands, displays an increase in non-compliance of deviant child behavior (McMahon & Forehand, 1984; Webster-Stratton & Hammond, 1988). Therefore, it is hypothesized that maternal depression and irritability indirectly lead to behavior problems as a result of negative attention reinforcing inappropriate child behaviors, inconsistent limit-setting, and emotional unavailability.

As might be expected, the presence of antisocial behavior in either parent places the child at greater risk for conduct disorders. In particular, criminal behavior and alcoholism in the biological father are consistently demonstrated as parental factors increasing the child's risk (Frick, Lahey, Christ, Loeber, & Green, 1991). Grandparents of children with CD also are more likely to show antisocial behavior compared to grandparents of children who are not antisocial.

Family Factors

Specific family characteristics have been found which contribute to the development and maintenance of child conduct disorder. Interparental conflict leading to and surrounding divorce are associated with, but are not strong predictors of, child conduct disorder (Kazdin, 1987). In particular, boys appear to be more apt to show significant

increases in antisocial behaviors following divorce. However, some single parents and their children appear to do relatively well over time post-separation, whereas others are chronically depressed and report increased stress levels. Once researchers began to differentiate between parental divorce, separation, and discord, they began to understand that it was not the divorce per se that was the critical factor in the child's behavior, but rather the amount and intensity of parental conflict and violence (O'Leary & Emery, 1982). Marital conflict is associated with more negative perceptions of the child's adjustment, inconsistent parenting, the use of increased punitiveness and decreased reasoning, and fewer rewards with children (Stoneman, Brody, & Burke, 1988). Conflictual, unhappy marriages displaying aggressive behavior are more likely to incite the formation of conduct disorder.

Other family factors such as poverty, unemployment, crowded living conditions, and illness have deleterious effects on parenting and are related to a variety of forms of child psychopathology including conduct disorders (Rutter & Giller, 1983; Kazdin, 1985). Families of children with CD report the incidence of major stressors two to four times greater than for families of children without CD (Webster-Stratton, 1990c). Parents of children with CD indicate that they experience more day-to-day hassles as well as major crises than nonclinic families. An accumulation of minor day-to-day chronic life hassles appear to disrupt parenting behaviors and lead to increased rates of coercive behavior and irritability in the parents' interactions with their children (Forgatch, Patterson, & Skinner, 1988; Webster-Stratton, 1990c). Additionally, parents who are depressed and stressed due to life events are less likely to be able to provide the cognitive stimulation and support necessary to foster a child's academic performance and behavior at school.

Maternal insularity is another parental factor implicated in child conduct disorder. Insularity is 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, p. 387).

This definition is important because it appears that, rather than the number or the amount of social contacts, it is the individual's perception of whether the social contact is supportive or helpful that makes the social contact advantageous. Mothers characterized as insular are more aversive and use more aversive consequences with their children than noninsular mothers (Wahler & Dumas, 1985). Insularity and lack of support also have been reported to be significant predictors of a family's relapse or failure to maintain treatment effects (Webster-Stratton, 1985b).

School-Related Factors — Peer and Teacher-Child Interactions.

Once children enter school, be it preschool or grade school, negative school and social experiences further exacerbate the adjustment difficulties of children with conduct problems. Children who are aggressive and disruptive with peers quickly become rejected by peers (Ladd, 1990) and this rejection can extend across school years. Over time, peers become mistrustful of such children and respond to them in ways that increase the likelihood of reactive aggression (Dodge & Somberg, 1987). Because of their noncompliant disruptive behavior, aggressive children also develop poor relations with teachers and receive less support and nurturing in the school setting. Some evidence suggests that teachers retaliate in a manner similar to parents and peers. One study reported that antisocial children were much less likely to get encouragement from teachers for appropriate behavior and more likely to get punished for negative behavior than well-behaved children (Walker & Buckley, 1973).

The school setting has been studied

disorders. Rutter and colleagues (1976) found that characteristics such as emphasis on academic work, teacher time on lessons, teacher use of praise, emphasis on individual responsibility, teacher availability, school working conditions (e.g., physical condition, size) and teacher-student ratio were related to oppositional behaviors, delinquency, and academic performance.

School and Home Connections as Factors

Bronfenbrenner (1979) has elucidated the importance not only of interactions that children have in their growing fields (such as family, peers, and school [microsystems]) but also of the connections between these social fields (exosystem). The child's "bonding" to social institutions (both family and school) as well as the family's bonding to the child and school are believed to be critical features in prevention of deviant behavior. For example, many parents of children with ODD and CD have had negative encounters with teachers concerning their children's behavior problems. Such encounters only add to parents' feeling of incompetence, their sense of helplessness regarding strategies to solve the problems, and their alienation from the school. This spiraling pattern of child negative behavior, parent demoralization and withdrawal, and teacher reactivity ultimately can lead to a lack of coordination and support between the socialization activities of the school and home — a weak exosystem, to use Bronfenbrenner's term. In a recent study teachers reported that parents of behavior problem children were less interested in knowing the teacher, seemed to hold different goals for their child, and seemed to value education less than did parents of socially competent children (Coie, Lochman, Terry, & Hyman, *in press*).

These differences suggest that an intervention model requires not only the development of appropriate social-cognitive and behavioral skills in the child and parent, but in addition healthy bonds between parents and school, child and

strong family-school bond, the child benefits because of the parents' increased expectations, interest in, and support for the child's social and academic performance (Hawkins & Weiss, 1985).

In summary, neither biological nor family nor school factors alone account for the development of CD, and by the time the child manifests conduct disorders it is likely that these child, family, and school factors are inextricably interconnected. For example, the antisocial parent not only provides a possible genetic transmission but also models inappropriate parent behavior for the child. Harsh and punitive discipline on the part of the parents not only fails to promote prosocial behavior in these children but also provides negative models, thereby further impeding the child's development of adaptive social-cognitive skills. High levels of family stress lead to disrupted and ineffective parenting and may be accompanied by low levels of cognitive stimulation and poor support for the child's academic and social success in school. Low parent involvement in the child's education may contribute to the child's low levels of academic skills and further alienate parents from teachers. This leads to a lack of connection between the school and home environments which further erodes the child's social and cognitive learning and contributes to academic delays. Once the aggressive child moves through the school grades, the downward slide into a new set of risk factors begins: peer rejection and exploitation, deviant peer group membership, academic disengagement, and low self-esteem.

PARENT TRAINING INTERVENTIONS

Following the theory, which posits the primacy of parents in the development of conduct disorders, intervention approaches have been aimed directly at treating the aggressive child's parents. The following discussion will highlight several comprehensive family-based behavioral intervention programs which were selected based on their widespread availability, detailed descriptions of training

tion of both the short-term and long-term effectiveness of the intervention. In addition, interventions geared toward younger preschool and school-aged children (as opposed to adolescents) are emphasized because of the emerging research which suggests 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, DeBaryshe, & Ramsey, 1989).

Description of Programs

The most highly influential parent training program was developed by Patterson, Reid, and their colleagues at the Oregon Social Learning Center (Patterson, 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 for children with CD. Their parent training program was originally developed for preadolescent children, engaged in overt conduct disorders. Parents begin the program by reading a programmed text, either *Living with Children* (Patterson, 1976) or *Families* (Patterson, 1975) and completing a test on the reading material. Then parents are taught a step-by-step approach wherein each newly learned skill forms the foundation for the next skill to be learned.

Five family management practices form the core content components of the program. First, they are taught how to pinpoint the problem behaviors of concern and to track them at home (e.g., compliance versus noncompliance). Second, they are taught social and tangible reinforcement techniques (e.g., praise, point systems, privileges, treats). Over time, the tangible reinforcers are replaced by the parents' social reinforcement. Third, the parents are taught discipline procedures. When parents see their children behaving inappropriately, they learn to apply a mild consequence such as a 5-minute time-out or a short-term privilege removal (e.g., 1-hour loss of bike use). (Patterson, Reid, Jones, & Conger, 1975, p. 10)

advocated for the older children. 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. In addition, Patterson and Chamberlain (1988) report that approximately 30% of their time is devoted to parents' personal adjustment problems such as depression, marital issues, and family crises.

This program content also has been modified for use with delinquent adolescents (Marlowe, Reid, Patterson, Weinrott, & Bank, 1988; Reid, 1987). Modifications include targeting behaviors believed to put the adolescent at risk for further delinquency (e.g., curfew violations, drug use, time with "bad" companions); emphasizing the importance of parental monitoring and supervision especially with respect to school attendance; and using punishment procedures such as work details and restriction of free time. Parents also are asked to report legal offenses to juvenile authorities and then act as advocates for their children in court.

The program for the preadolescents typically requires 20 hours of one-to-one therapy between the therapist and the parents in the clinic and includes home visits and homework assignments in order to foster generalization of parenting strategies. The program for parents of chronic delinquents averages 45 hours and includes greater involvement of the adolescent in treatment sessions, especially regarding the training and implementation of behavioral contracts with parents. The treatment content has been described in a manual by Patterson et al. (1975) and elaborated upon by Reid (1987).

A second important parent training program was designed to treat noncompliance in young children, ages 3 to 8. Originally developed by Hanf (Hanf & Kling, 1973), the program was later

modified and evaluated extensively by McMahon and Forehand (1984). As clearly described by Forehand and McMahon (1981) in their book, *Helping the Noncompliant Child*, the content of the first phase of this comprehensive parent training program includes 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. Phase Two of the program includes teaching parents ways to give direct, concise, and effective commands and how to use 3-minute time-outs for noncompliance. Progression to each new skill in the treatment program is governed by the parents' ability to achieve an acceptable degree of competence in a particular skill before being taught a new skill.

The program is conducted in a clinic setting with the therapist working with individual parents and children rather than groups. 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 directly coach/prompt and give feedback to parents while they play with the child. Homework is assigned in the form of daily 10-minute practice sessions with the child using the strategies learned in the clinic.

A third example of a comprehensive parent training program for young children with CD was developed by Webster-Stratton (1981a, 1981b, 1982a, 1982b, 1984). The content of the BASIC program, which was designed for parents with children ages 3 to 8, includes components of Hanf and Kling (1973) and Forehand and McMahon's (1981) "child-directed play" approaches as well as the strategic use of differential-attention and effective use of commands. The content incorporates Patterson's (1982) discipline com-

ponents concerning time-out, logical and natural consequences, and monitoring. Finally, the content includes teaching parents problem-solving and communication strategies with their children (D'Zurilla & Nezu, 1982; Spivak, Platt, & Shure, 1976). Recently, an advanced program (ADVANCE) was developed to focus on personal parent issues other than parent skills and cognitive perspectives such as anger management, coping with depression, effective communications skills, problem-solving strategies between adults, ways to give and get support, and how to teach children to problem solve and manage their anger more effectively.

What is unique about this program of research is its concern with developing the most effective **methods** of training parents (i.e., methods which were cost-effective, widely applicable, and sustaining). Based on Bandura's (1977a, b) modeling theory, the program utilizes video tape modeling methods. Efforts are made to promote the modeling effects for parents by creating positive feelings about the models shown on the video tapes. For example, the tapes show models of differing sexes, ages, cultures, socioeconomic backgrounds, and temperaments so that parents will perceive the models as similar to themselves and their children. Video tapes 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.

The BASIC parent training program takes 26 hours (13 sessions) and its methods include a series of 10 video tape programs of modeled parenting skills (250 vignettes, each of which lasts approximately 1-2 minutes) which are shown by a therapist to groups of parents (8-12 parents per group). After each vignette, the therapist leads a group discussion of the relevant interactions and encourages parents' ideas. The group process is based on a collaborative model which includes the therapeutic processes of empowering and supporting parents, teaching, leading, reframing, predicting, and role-playing (Webster-Stratton & Herbert, in press).

The ADVANCE video tape parent program takes 28 hours and consists of 6 video tape programs which also are shown in conjunction with therapist-led group discussions. The children do not attend the therapy sessions in either of the programs, although parents are given weekly homework exercises to practice various skills with their children at home. Finally, the program has been given to over 80 parents of children with CD as a completely self-administered intervention (i.e., the parents complete the video tape programs and homework assignments without therapist feedback or group support).

Program Evaluation

Each of these parent programs has been extensively evaluated with highly promising results. All the programs have had reports of high parental ratings of acceptability and consumer satisfaction (Cross Calvert & McMahon, 1987; McMahon, Forehand, Griest, & Wells, 1981; Webster-Stratton, 1989a). 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 (e.g., McMahon & Forehand, 1984; Patterson, Cobb, & Ray, 1973; Spitzer, Webster-Stratton, & Hollinsworth, 1991; Webster-Stratton, 1981b, 1984; Webster-Stratton, Kolpacoff, & Hollinsworth, 1988). Home observations have indicated that parents are successful in reducing children's levels of aggression by 20 to 60% (Patterson, 1982; Webster-Stratton, 1985a). Generalization of behavior improvements from the clinic setting to the home (e.g., Patterson & Fleischman, 1979; Peed, Roberts, & Forehand, 1977; Webster-Stratton, 1984) over reasonable follow-up periods (1 to 4 years) and to untreated child behaviors has been demonstrated (e.g., Arnold, Levine, & Patterson, 1975; Fleischman, 1981; Forehand & Long, 1986; Webster-Stratton, 1982b, 1990a, 1990b). However, the same does not seem to be true in the case of behavior at school: improved child behavior at home does not necessarily generalize to the school setting. Studies have indicated that although a child

behavior improves at home, his or her teacher does not necessarily report improvements in conduct problems and peer relationships (Breiner & Forehand, 1981; Forehand et al., 1979). The Webster-Stratton (1981a, b) program reported significant improvements in teacher reports of child adjustment immediately post-treatment, but a year later these were not maintained.

In regard to comparison studies, changes from Patterson's parent treatment approach have been shown to be superior to family-based psychotherapy, attention-placebo (discussion), and no-treatment conditions (Patterson, Chamberlain, & Reid, 1982). Changes from Forehand and McMahon's (1981) program have been shown to be more effective than a family systems therapy (Wells & Egan, 1988), and a group version of the program was more effective than a parent discussion group based on the Systematic Training for Effective Parenting (STEP) program (Baum, Reyna McGlone, & Ollendick, 1986; Dinkmeyer & McKay, 1976). Webster-Stratton's program has been replicated with several different populations and has been shown to be superior to a waiting-list control condition (Webster-Stratton, 1982a, 1982b, 1984). In addition, the therapist-led group discussion video tape modeling method (GDVM) has been shown to be equally good if not more effective than a parent training method based on the highly individualized "bug-in-the-ear" approach, a parent group discussion approach (without video tape modeling methods), or a completely self-administered video tape modeling approach (without therapist feedback or group discussion; Webster-Stratton, Kolpacoff, & Hollinsworth, 1988, 1989). This component analysis of the GDVM parent training methods seems to suggest that parent training methods based on video tape modeling plus parent group discussion and support will produce more sustained and long-term effects than programs which do not use these methods. Moreover, the group approach represents a cost-effective alternative to the conventional parent training format of individual therapy with a single family.

Factors Contributing to Outcome

Despite the general overall success of these programs in producing "statistically significant" changes in parent and child behaviors, evidence also indicates that some families do not respond to treatment; some children continue to have "clinically significant" behavior problems after treatment. If the criteria for treatment response is defined as the extent to which parents and teachers report children's adjustment within normal or the nonclinical range of functioning (Jacobson, Follette, & Revenstorf, 1984), then the results of these interventions look less robust. Long-term follow-up studies suggest that 30 to 40% of treated parents and 25% of teachers report children to have behavior problems in the deviant or clinical range (Forehand, Furey, & McMahon, 1984; Schmalzing & Jacobson, 1987; Webster-Stratton, 1990a, 1990b).

A Broader Family-Based Training Model

Researchers have convincingly demonstrated that parent and family characteristics such as marital distress, spousal abuse, lack of a supportive partner, maternal depression, poor problem-solving skills, and high life stress are associated with fewer treatment gains (e.g., Forehand, Furey, & McMahon, 1984; Forgatch, 1989; Webster-Stratton, 1985b, 1989b, 1990b; Webster-Stratton & Hammond, 1988, 1990). Moreover, families with socioeconomic disadvantages and a lack of social support for the mother outside the home (i.e., few positive social contacts with family or friends) are less likely to maintain treatment effects (Wahler, 1980; Wahler & Dumas, 1984) and are more likely to dropout of treatment. As a result broader-based expansions of family training have been developed to focus on adjunctive strategies to address these family interpersonal issues (e.g., marital communication, stress management). In this model, broader based interventions are hypothesized to help mediate the negative influences of family stressors on parenting skills and to

generalizability of treatment gains. Unfortunately, few studies have specifically assessed the relative contribution of adjuncts; however, those few studies which have incorporated family adjuncts have generally supported the short-term efficacy of these procedures over and above basic parent training (Dadds, Schwartz, & Sanders, 1987; Griest, Forehand, Rogers, Breiner, Furey, & Williams, 1982; Webster-Stratton, 1992). For example, in Webster-Stratton's recent study (1992a, b), parents who were able to make clinically significant improvements in their marital and problem-solving skills after attending the ADVANCE family intervention also were the families who showed significant improvements in parenting skills. On the other hand, those fathers who did not improve in their marital interactions did not improve in their parenting skills.

Another possible reason for the nonresponse to parent training intervention for some families, particularly in studies with older children and adolescents with CD, is that the intervention has come too late, after children's negative behavior patterns and negative reputations with peers and teachers have been established. Once established, these are difficult to reverse. Studies with younger children with CD have shown more positive results. Early intervention — in the critical transitional period from preschool to school or in the primary grades, when the parents and teachers are still the primary socialization influences in the child's development (as opposed to peers) — offers promise for preventing the trajectory from ODD to CD.

A third possible reason for the failure to see improvements in children's behaviors at school is that family training interventions typically have not focused on school-related issues. Typically family training does not attempt to help parents understand how they can collaborate with teachers to utilize similar behavior management strategies at school and home, or how parents can foster their children's success at school through homework and peer monitoring. Parents need to know not only how to help their children with their

behavior problems at home, but also with their social and academic difficulties (e.g., reading and writing) at school. In addition, parents need to know how to support their children's teachers' efforts. Currently, Webster-Stratton (1992) and colleagues have developed an academic skills training video tape series to train parents in effective ways to support their children's education and to work with teachers. It is hypothesized that this new component will promote children's academic skills and result in more positive home-school connections and will increase the effectiveness of the family intervention so that it successfully generalizes across settings to the classroom.

CHILD TRAINING PROGRAMS

What factors could explain the failure of some families of children with CD to respond to parent training programs? It could be argued that, for some families, the lack of long-term effectiveness of the traditional parent skills training approaches may be due to the exclusive focus on parent skills as the locus of change and the failure to acknowledge the role that child, peer, and school factors play in the development of conduct problems. For those who subscribe to the theory which suggests that the children's deficits in their cognitive, social, and behavioral skills leads to the development of conduct disorders, interventions have been aimed directly at the children. The following discussion briefly highlights a few of the promising child training programs.

Description of Programs

A variety of innovative child training programs have been developed in recent years (for review, see Beck & Forehand, 1984; Bierman, 1989). There have been two basic types of child skills training approaches. The first attempts to train the child in *target social behaviors* based on the hypothesized social skills deficit. Such programs coach children in positive social skills such as play skills, friendship, and conversational skills (e.g., Gresham &

Nagle, 1980; Ladd & Asher, 1985; La Greca & Santogrossi, 1980; Minken et al., 1976; Mize & Ladd, 1990; Spence, 1983), academic and social interaction training (Coie & Krehbiel, 1984), and behavioral control strategies (Bierman, Miller, & Stabb, 1987). Some of these programs have targeted a few specific skills such as conversational skills (Bierman & Furman, 1984; Ladd, 1981) or game skills (Oden & Asher, 1977), while other programs have focused on a wider variety of skills, such as La Greca and Santogrossi's program (1980) which targets eight behaviors (including smiling, greeting, joining, inviting, conversing, sharing, cooperating, and complimenting).

The second type of child training approach relies on cognitive-behavioral methods and focuses on training children in the *cognitive processes* (e.g., problem-solving, self-control, self-statements) or the affective domain (e.g., empathy training and perspective taking; Camp & Bash, 1985; Kazdin, 1987; Kendall & Braswell, 1985; Lochman, Burch, Curry, & Lampron, 1984; Spivack & Shure, 1974). The methods used by both of these approaches usually include verbal instructions and discussions, opportunities to practice the skill with peers, role-playing, games, stories, and therapist feedback and reinforcement. Most of these programs are school-based, time-limited (4-12 weeks) and rather surprisingly, have not involved the parents in the training. Moreover, the majority of programs (e.g., Kendall & Braswell, 1985; Spivack et al., 1976) have not specifically targeted children with conduct disorders. Those that did specify this population have tended to intervene with preadolescents (ages 8 and older) and adolescent delinquents rather than young aggressive children and did not include direct behavioral observations in the home (Kazdin, Esveltd-Dawson, French, & Unis, 1987a, 1987b; Lochman, Lampron, Gemmer, & Harris, 1987; Lochman, Nelson, & Sims, 1981).

Program Evaluation

A review of the social skill and cognitive intervention research with children

is only mildly encouraging (Asher & Coie, 1990; Kendall & Braswell, 1985; Rubin & Krasnor, 1983). While few programs were actually conducted with clinical samples referred because of conduct disorders, there does seem to be evidence that the younger or less mature children and the more aggressive children are relatively unaffected by the existing child social skills training (Asher & Renshaw, 1981; Coie, 1990b; Kendall & Braswell, 1985). Moreover, because few studies have employed direct observational measures of aggression or noncompliance, it is unknown whether those children showing improvements in cognitive processes, social skills, and sociometric ratings also will show reductions in conduct problems. There has been a failure to show convincingly that improvements in social or cognitive skills in the laboratory, inpatient setting, or in analogue situations generalize to the home or that the long-term effects of child treatments are maintained (Bierman, 1989).

The cognitive-behavioral programs with preadolescents look somewhat more promising. In one study Lochman et al. (1984) reported that their cognitive-behavioral program was more effective than either goal-setting alone or no treatment in reducing disruptive aggressive off-task behavior in the classroom. The addition of goal-setting to the cognitive intervention resulted in greater reduction in aggressive behavior than did the cognitive intervention alone. The long-term effects of this program remain unknown, however. In regard to the Kazdin et al. (1987a) Problem-Solving and Social Skills Training (PSST) program for older children and adolescents, studies have suggested that PSST is superior to relationship therapy and attention placebo control conditions on both parent and teacher ratings of behavior problems at post-treatment and at 1-year follow-up. A second investigation showed similar results when PSST was combined with parent training and compared to placebo control (Kazdin et al., 1987b). However, since there were no observational assessments of behavior in the laboratory, schools or homes, it is unclear

behavior changes occurred and whether they generalized across setting. Finally, few studies have elaborated on the predictors that contribute to social skills treatment successes or failures studies except as noted above to suggest that the greater the level of child aggression, the less effective the treatment.

TEACHER TRAINING PROGRAMS

It also could be argued that, for some families, the lack of long-term effectiveness of parent training programs and the failure of child behavior improvements to generalize beyond the home to school and peer relationships may be attributable to the fact that the school environment, peers, and teachers play a role in the development and maintenance of conduct disorders. Once children with ODD/CD enter school, a variety of new and highly predictable risk factors (e.g., peer rejection, academic failure, teacher intolerance) begin to operate independently from those in the family and it is critical to target these new antecedents in intervention efforts as soon as possible. An exclusive focus on the home environment and parenting skills is simply too limited a domain to promote long-term benefits for the conduct disordered school-aged child.

As previously noted, low academic achievement and learning delays are highly related to early conduct problems (Rutter et al., 1976) and may operate as another factor mediating the effects of family training. This implies that interventions must go beyond within-family change and expand to the child's broader social context of the school. In light of these children's academic delays and their failure or inability to comply to school rules and the influence of the school environment and teachers in particular on conduct disorders, it is surprising that interventions for children with CD have not, in general, involved teachers alongside parents in planning intensive classroom management strategies and special programs to enhance academic skills. Typically, teachers are left struggling alone in the classroom with a difficult and

noncompliant child who exhibits academic as well as behavior problems. Evidence that such school-based interventions are feasible is provided by an ongoing study in Baltimore by the Johns Hopkins Prevention Center (Kellam & Rebok, 1992). In this study first-grade students in the intervention schools were exposed to a cooperative classroom intervention called the Good Behavior Game (Barrish, Saunders, & Wolfe, 1969). Results indicated significant improvements in children's behavioral conduct relative to children in no-intervention control classrooms. In the same study when a mastery learning procedure was used in the classrooms the mean level of academic performance was significantly enhanced. In another study, it was reported that an academic intervention with socially rejected children, significantly reduced disruptive school behaviors, improved social status, and increased teacher attention (Coie & Krehbiel, 1984).

LIMITATIONS OF PROGRAMS

In this article we have described a number of promising, carefully controlled, cognitive-social-learning-based treatment programs for helping families with relatively young children with CD. Due to space limitations we have not reviewed other types of treatments based on other theoretical models, such as community-based treatments or functional family therapy. Instead the content, methods, and strategies utilized by three broad types of programs are reviewed: one which is family-focused and aimed at training the parents to act as the change agents, another which is child-focused and aimed at treating the child, and the third which is school-focused and aimed at training the teachers to bring about child improvements.

In summary, this review of the research suggests that parent training programs not only comprise the largest body of research in this area, but also have presented the most effective and promising results, particularly if offered to young children with ODD or CD. Nevertheless, research also suggests that for

some families. simply remedying the parent management skills does not resolve the child's conduct problems. Data concerning predictors of parent training treatment outcome (response, relapse, and failure) have pointed to the need to broaden parent training interventions to include other treatment components for family problems such as depression and marital discord. It is hypothesized that these expanded programs will improve parenting programs' effectiveness and long-term effects.

Nonetheless, while a parent training approach holds much promise for effectively treating children with CD, there are several important limitations to this approach. The first is the failure of child improvements brought about by parent training programs to generalize beyond the home to school and peer relationships. Consequently, while the majority of children improve their social behavior at home, 30 to 50% of the children 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 across the home and school settings. A second limitation is that, despite the documented links between underachievement, language delays, reading disabilities, and conduct disorders, parent training 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. For example, they need to know how to promote their children's reading and language skills. They also need to know how to work with teachers and schools in order to foster a supportive relationship between the home and school settings. Such a coordinated effort between the home and school regarding social and academic goals also would offer the possibility for better generalization of child improvements across settings (Webster-Stratton, 1992a). A third limitation of

a parent intervention approach is the possibility that parents will refuse to participate in such programs. Some parents may not participate either because of their own dysfunction or because they have given up and are not motivated to change their behaviors.

On the other hand, child training programs have the practical advantage of being made available through school programs to children whose parents are reluctant or unwilling to participate in parent training programs. However, studies to date have presented comparatively less convincing and less potent results. There are several possible reasons for this. The first is that many of the child training studies in recent years have been carried out with older middle-grade school children or adolescents who have already had 5 to 10 years experience in negative relationships with peer groups and teachers (Coie & Kupersmidt, 1983; Dodge, 1983). It is highly likely that by the middle grades the aggressive child's negative reputation and social rejection by his or her peer group may be well-established (Coie, 1990a). This chronic pattern may make it difficult for such children, even if they learn more appropriate social skills during the middle grades, to utilize these skills and change their image (Bierman & Furman, 1984). Intervention at a younger age may be more strategic in terms of helping children develop social competence before these negative behaviors and reputations develop into permanent patterns (Dodge, Pettit, McClaskey, & Brown, 1986).

A second possible reason for the lack of effectiveness of the child skills training programs, particularly with younger, aggressive, peer-rejected children, is the fact that the content of most of the traditional programs (with some exceptions such as Lochman's and Kazdin's programs) did not focus specifically on problems of aggression and noncompliance in children with CD; nor did they address their specific academic problems such as reading delays. In fact, direct behavioral prohibitions or specific consequences for negative behaviors such as time-out are rarely included in most social

skills training programs (Coie & Krehbiel, 1984; Ladd, 1981). Social skills intervention programs must be tailored to the specific needs, problems, and age of children with CD.

A third possible reason for the lack of success in social skills programs with very young children may be because the programs were too cognitively sophisticated and not developmentally appropriate for this age group. Indeed there has been a lack of specific attention to the most effective methods of training young children. Nonetheless, research evaluating the effects of television on children's behaviors suggests that younger children may benefit from a concrete, performance-based model, such as verbally mediated video tape modeling, rather than a cognitive or predominantly verbal model (Singer, 1982; Singer & Singer, 1983). When designing the content and methods of intervention programs for young children, ages 4 to 8, in contrast to preadolescent children, greater attention needs to be paid to developmental differences. For example, imaginary play is highly important in the 3 to 8-year-old, but less critical at other ages (Connolly & Doyle, 1984). Recently Webster-Stratton (1991) conducted a randomized study to investigate the effectiveness of a child training program designed specifically for children with CD ages 4 to 8. The *Dinosaur Social Skills and Problem-Solving Curriculum* is based heavily on video tape modeling methods as well as role-play, rehearsal, fantasy play, and activities. The content of this program includes empathy training, problem solving, anger management, friendship skills, communication skills, and academic training (Webster-Stratton, 1991).

A final reason for the failure of social skills training programs to generalize from the child treatment setting to the home, school, or peer settings may be the exclusive focus on the child as the locus of change, rather than including a parent or family training or teacher training component. Focusing only on the child — just as the problem we discussed regarding exclusive focus on the parents — would seem to limit the likelihood of any

effects generalizing across settings. Indeed, in Kazdin et al.'s study (1987a, b), it was reported that the combination of parent training plus child problem-solving training was more effective in treating adolescent antisocial boys than parent training alone.

FUTURE DIRECTIONS — THE NEED FOR COMPREHENSIVE PREVENTION PROGRAMS

Evidence from the studies reviewed in this article suggests that only integrated and comprehensive interventions which target multiple symptoms of CD across risk factors, settings, and agents can hope to change the developmental trajectory for the child with ODD/CD. Many creative interventions have been developed for parents, teachers, and children, offering much hope for effectively treating children with CD. Such programs hold promise for prevention programs which should be offered early with high risk populations, before the disorder develops in the first place. The preschool period and early school grades appear to be a particularly optimal time for teachers, school psychologists, and school nurses to initiate early identification and to intervene with preventive programs for children to facilitate children's social competence and conflict resolution skills and to prevent the downward slide into peer rejection, deviant peer groups, failure, and school dismissal. The most effective programs will be those which involve schools, teachers, and the child's peer group in the interventions alongside the family intervention. Active partnerships between parents and schools must take place for parents to know how to support teachers regarding their children's academic and social difficulties and for teachers to know how to support parents' involvement.

Finally, the findings concerning families of children with CD have repeatedly suggested this is a chronic problem, often transmitted across generations. Thus, in order for interventions programs for this problem to be effective, they need to be perceived not as a short-term "quick-fix" but rather in a longitudinal framework

involving periodic training and support at various critical stages throughout the child's social and academic development. Again this kind of developmental social skills and problem-solving curriculum would seem best offered through the schools where such programs can be integrated into the classroom for all children so that not only are children with ODD/CD helped with learning new social and conflict resolution skills but other more socially competent children are prevented from rejecting and exploiting these children because of their behavioral differences. Given the high base rates of conduct disorder, the continuity of the problem from early childhood, through adolescence, and often into adulthood, and its implication for the intergenerational transmission of deviance, the chance of breaking the link in the "cycle of disadvantage" is a public health matter of the utmost importance.

REFERENCES

- American Psychiatric Association. (1987). *Diagnostic and Statistical Manual of Mental Disorders* (3rd ed. rev.). Washington, DC: Author.
- 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.
- Asarnow, J., & Callan, J. (1985). Boys with peer adjustment problems: Social cognitive processes. *Journal of Consulting and Clinical Psychology, 53*, 80-87.
- Asher, S. R., & Coie, J. D. (1990). *Peer rejection in childhood*. Cambridge: Cambridge University Press.
- Asher, S. R., & Renshaw, P. D. (1981). Children without friends: Social knowledge and social skill training. In S. R. Asher & J. M. Gottman (Eds.), *The development of children's friendships* (pp. 273-296). New York: Cambridge University Press.
- Bandura, A. (1977a). Self-efficacy: Towards a unifying theory of behavioral change? *Psychological Review, 84*, 191-215.
- Bandura, A. (1977b). *Social learning theory*. Englewood Cliffs, NJ: Prentice-Hall, Inc.
- Barrish, H. H., Saunders, M., & Wolfe, M. D. (1969). Good behavior game: Effects of individual contingencies for group consequences and disruptive behavior in the classroom. *Journal of Applied Behavior Analysis, 2*, 119-124.
- Bates, J. (1990). Conceptual and empirical linkage: between temperament and behavior problems: A commentary on the Sanson, Prior, and Kyrios study. *Merrill-Palmer Quarterly, 36*(2), 193-199.
- Bates, J. E., Bayles, K., Bennett, D. S., Ridge, B., & Brown, M. M. (1991). Origins of externalizing behavior problems at eight years of age. In D. J. Pepler & K. H. Rubin (Eds.), *The development and treatment of childhood aggression* (pp. 93-120). Hillsdale, NJ: Erlbaum.
- Baum, C. G., Reyna McGlone, C. L., & Ollendick, T. H. (1986, November). *The efficacy of behavioral parent training: Behavior parent training plus clinical self-control training, and a modified STEP program for children referred with noncompliance*. Paper presented at the meeting for the Association for Advancement of Behavior Therapy, Chicago, IL.
- Beck, S. J., & Forehand, R. (1984). Social skills for children: A methodical and clinical review of behavior modification studies. *Behavioral Psychotherapy, 12*, 17-45.
- Bierman, K. L. (1989). Improving the Peer Relationships of Rejected Children. In B. B. Lahey & A. E. Kazdin (Eds.), *Advances in clinical child psychology* (Vol. 12) (pp. 53-84). New York: Plenum.
- Bierman, K. L., & Furman, W. (1984). The effect of social skills training and peer involvement on the social adjustment of preadolescents. *Child Development, 55*, 151-162.
- Bierman, K. L., Miller, C. M., & Stabb, S. (1987). Improving the social behavior and peer acceptance of rejected boys: Effects of social skill training with instructions and prohibitions. *Journal of Consulting and Clinical Psychology, 55*, 194-200.
- Breiner, J. L., & Forehand, R. (1981). An assessment of the effects of parent training on clinic-referred children's school behavior. *Behavioral Assessment, 3*, 31-42.
- Bronfenbrenner, U. (1979). *The ecology of human development*. Cambridge, MA: Harvard University Press.
- Camp, B. W., & Bash, M. A. S. (1985). *Think aloud: Increasing social and cognitive skills — A problem-solving program for children classroom program*. Champaign, IL: Research Press.
- Coie, J. D. (1990a). Adapting intervention to the problems of aggressive and disruptive rejected children. In S. R. Asher & J. D. Coie (Eds.), *Peer rejection in childhood* (pp. 309-337). Cambridge: Cambridge University Press.
- Coie, J. D. (1990b). Toward a theory of peer rejection. In S. R. Asher & J. D. Coie (Eds.), *Peer rejection in childhood* (pp. 365-398). Cambridge: Cambridge University Press.

- Coie, J. D., & Krehbiel, G. (1984). Effects of academic tutoring on the social status of low-achieving, socially rejected children. *Child Development*, 55, 1465-1478.
- Coie, J. D., & Kupersmidt, J. B. (1983). A behavioral analysis of emerging social status in boys' groups. *Child Development*, 54, 1400-1416.
- Coie, J. D., Lochman, J. E., Terry, R., & Hyman, C. (in press). Predicting early adolescent disorder from childhood aggression and peer rejection. *Journal of Consulting and Clinical Psychology*.
- Connolly, J. A., & Doyle, A. B. (1984). Relation of social fantasy play to social competence in preschoolers. *Developmental Psychology*, 20, 797-806.
- Cross Calvert, S., & McMahon, R. J. (1987). The treatment acceptability of a behavioral parent training program and its components. *Behavior Therapy*, 18, 165-179.
- 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.
- Dinkmeyer, D., & McKay, G. D. (1976). *Systematic training for effective parenting*. Circle Pines, MN: American Guidance Service.
- Dodge, K. A. (1983). Behavioral antecedents of peer social status. *Child Development*, 54, 1386-1389.
- Dodge, K. A., & Newman, J. P. (1981). Biased decision-making processes in aggressive boys. *Journal of Abnormal Psychology*, 90, 375-379.
- Dodge, K. A., Pettit, G. S., & McClaskey, C. L., & Brown, M. M. (1986). Social competence in children. *Monographs of the Society for Research in Child Development*, 51 (2, Serial No. 213).
- Dodge, K. A., & Somberg, D. R. (1987). Hostile attributional biases among aggressive boys are exacerbated under conditions of threats to the self. *Child Development*, 58, 213-224.
- 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.
- Fleischman, M. J. (1981). A replication of Patterson's "Intervention for boys with conduct problems." *Journal of Consulting and Clinical Psychology*, 49, 342-351.
- Forehand, R. L., 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., & Long, N. (1986, Nov.). *A long-term follow-up of parent training participants*. Paper presented at the meeting of the Association for Advancement of Behavior Therapy, Chicago, IL.
- Forehand, R. L., & McMahon, R. J. (1981). *Helping the noncompliant child: A clinician's guide to parent training*. New York: Guilford Press.
- 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.
- Forgatch, M. (1989). Patterns and outcome in family problem solving: The disrupting effect of negative emotions. *Journal of Marriage and the Family*, 51, 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.), *Impact of divorce, single parent, and step-parenting on children* (pp. 135-154). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Frick, P. J., Lahey, B. H., Christ, M. A., Loeber, R., & Green, S. (1991). History of childhood behavior problems in biological relatives of boys with attention deficit hyperactivity disorder and conduct disorder. *Journal of Clinical Child Psychology*, 18, 114-120.
- Goutz, K. (1981). Children's initial aggression level and the effectiveness of intervention strategies in moderating television effects on aggression. Cited in Goutz, K. R. (1987). Attention and social problem-solving as correlates of aggression in preschool males. *Journal of Abnormal Child Psychology*, 15, 181-197.
- Gresham, F. M., & Nagle, R. J. (1980). Social skill training with children: Responsiveness to modeling and coaching as a function of peer orientation. *Journal of Consulting and Clinical Psychology*, 84, 718-729.
- Griest, D. L., Forehand, R., Rogers, T., Breiner, J. L., Furey, W., & Williams, C. A. (1982). Effects of Parent Enhancement Therapy on the treatment outcome and generalization of a parent training program. *Behaviour Research and Therapy*, 20, 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.
- Hanf, E., & Kling, J. (1973). *Facilitating parent-child interactions: A two-stage training model*. Unpublished manuscript, University of Oregon Medical School, Portland, OR.

- Hawkins, J. D., & Weiss, J. G. (1985). The social development model: An integrated approach to delinquency prevention. *Journal of Primary Prevention*, 6, 73-95.
- Herbert, M. (1987). *Conduct disorders of childhood and adolescence: A social learning perspective* (2nd ed.). Chichester, England: Wiley.
- Herbert, M. (1991). *Clinical child psychology: Social learning, development and behavior*. Chichester, England: Wiley.
- Hobbs, N. (1982). *The troubled and the troubling child*. San Francisco: Jossey-Bass.
- Institute of Medicine. (1989). *Research on children and adolescents with mental, behavioral and developmental disorders*. Washington, DC: National Academic Press.
- Jacobsen, N. S., Follette, W. C., & Revenstorf, D. (1984). Psychotherapy outcome research: Methods for reporting variability and evaluating clinical significance. *Behavior Therapy*, 15, 336-352.
- Kazdin, A. E. (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., Esveldt-Dawson, K., French, N. H., & Unis, A. S. (1987a). Effects of parent management training and problem-solving skills training combined in the treatment of antisocial child behavior. *Journal of the American Academy of Child and Adolescent Psychiatry*, 26, 416-424.
- Kazdin, A. E., Esveldt-Dawson, K., French, N. H., & Unis, A. S. (1987b). Problem-solving skills training and relationship therapy in the treatment of antisocial child behavior. *Journal of Consulting and Clinical Psychology*, 55, 76-85.
- Kellam, S. G., & Rebok, G. W. (1992). Building developmental and etiological theory through epidemiologically based intervention trials. In J. McCord & R. E. Tremblay (Eds.), *Preventing antisocial behavior: Interventions from birth through adolescence* (pp. 162-195). New York: Guilford Press.
- Kendall, P. C., & Braswell, L. (1985). *Cognitive-behavioral therapy for impulsive children*. New York: Guilford Press.
- Ladd, G. W. (1981). Effectiveness of a social learning method for enhancing children's social interaction and peer acceptance. *Child Development*, 52, 171-178.
- Ladd, G. W. (1990). Having friends, keeping friends, making friends, and being liked by peers in the classroom: Predictors of children's early school adjustment? *Child Development*, 61, 1081-1100.
- Ladd, G. W., & Asher, S. R. (1985). Social skill training and children's peer relations: Current issues in research and practice. In L. L'Abate & M. Milan (Eds.), *Handbook of social skill training* (pp. 219-244). New York: Wiley.
- La Greca, A. M., & Santogrossi, D. A. (1980). Social skills training with elementary school students: A behavioral group approach. *Journal of Consulting and Clinical Psychology*, 48, 220-227.
- Lahey, B. B., Loeber, R., Quay, H. C., Frick, P. J., & Grimm, J. (1992). Oppositional defiant and conduct disorders: Issues to be resolved for DSM-IV. *Journal of Academy of Child Psychiatry*, 31(3), 539-546.
- Lochman, J. E., Burch, P. R., Curry, J. F., & Lampron, L. B. (1984). Treatment and generalization effects of cognitive-behavioral and goal-setting interventions with aggressive boys. *Journal of Consulting and Clinical Psychology*, 52, 915-916.
- Lochman, J. E., Lampron, L. B., Gemmer, T. C., & Harris, S. R. (1987). Anger coping intervention with aggressive children: A guide to implementation in school settings. In P. A. Keller & S. R. Heyman (Eds.), *Innovations in clinical practice: A source book* (Vol. 6, pp. 339-356). Sarasota, FL: Professional Resource Exchange.
- Lochman, J. E., Nelson, W. M., & Sims, J. P. (1981). A cognitive behavioral program for use with aggressive children. *Journal of Clinical Child Psychology*, 10, 146-148.
- Loeber, R. (1985). Patterns and development of antisocial child behavior. In G. J. Whitehurst (Ed.), *Annals of child development* (Vol. 2, pp. 77-116). New York: JAI Press.
- Loeber, R. (1990). Development and risk factors of juvenile antisocial behavior and delinquency. *Clinical Psychology Review*, 10, 1-41.
- Marlowe, H., Reid, J. B., Patterson, G. R., Weinrott, M. R., & Bank, L. (1988). *A comparative evaluation of parent training for families of chronic delinquents*. Manuscript submitted for publication.
- Maziade, M., Cote, R., Bernier, H., Boutin, P., & Thivierge, J. (1989). Significance of extreme temperament in infancy for clinical status in pre-school years I. *British Journal of Psychiatry*, 15, 535-543.
- 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.
- Milich, R., & Dodge, K. A. (1984). Social information processing in child psychiatric populations. *Journal of Abnormal Child Psychology*, 12(3), 471-490.
- Minken, N., Braukmann, C. J., Minken, B. L., Timbers, G. D., Fixsen, D. L., Phillips, E. L., & Wolf, M. M. (1976). The social validation and training of conversation skills. *Journal of Applied Behavior Analysis*, 9, 127-140.
- Mize, J., & Ladd, G. W. (1990). Toward the development of successful social skills training for preschool children. In S. R. Asher & J. D. Coie (Eds.), *Peer rejection in childhood* (pp. 338-361). Cambridge: Cambridge University Press.
- Oden, S., & Asher, S. R. (1977). Coaching children in social skills for friendship making. *Child Development*, 48, 495-506.
- 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.
- 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, 432-44.
- 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. Unikel (Eds.), *Issues and trends in behavior therapy* (pp. 139-210). Springfield, IL: Charles C Thomas.
- Patterson, G. R., DeBaryshe, B. D., & Ramsey, E. (1989). A developmental perspective on antisocial behavior. *American Psychologist*, 44, 329-335.
- 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., Reid, J. B., Jones, R. R., & Conger, R. W. (1975). *A social learning approach to family intervention* (Vol. 1.). Eugene, OR: Castalia.
- Patterson, G. R., & Stouthamer-Loeber, M. (1984). The correlation of family management practices and delinquency. *Child Development*, 55, 1299-1307.
- 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.
- Reid, J. B. (1987). *Therapeutic interventions in the families of aggressive children and adolescents*. Paper presented at the meeting of the Organizzato dalle Catterde di Psicologia Clinicae delle Teorie di Personalita dell'Universita di Roma, Rome.
- Reid, J., Taplin, P., & Loeber, R. (1981). A social interactional approach to the treatment of abusive families. In R. Stewart (Ed.), *Violent behavior: Social learning approaches to prediction, management and treatment*. New York: Brunner/Mazel.
- Richard, B. A., & Dodge, K. A. (1982). Social maladjustment and problem solving in school aged children. *Journal of Consulting and Clinical Psychology*, 50, 226-233.
- Richman, N., Stevenson, L., & Graham, P. J. (1982). *Pre-school to school: A behavioural study*. London: Academic Press.
- 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.
- Rubin, K. H., & Krasnor, L. R. (1983). Social-cognitive and social behavioral perspectives on problem-solving. In M. Perlmutter (Ed.), *Minnesota symposia on child psychology* (Vol. 18). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Rutter, M. (1985). Resilience in the face of adversity: Protective factors and resistance to psychiatric disorder. *British Journal of Psychiatry*, 147, 598-611.
- Rutter, M., Cox, A., Tupling, C., Berger, M., & Yule, W. (1975). Attainment and adjustment in two geographical areas. I: The prevalence of psychiatric disorder. *British Journal of Psychiatry*, 126, 493-509.
- Rutter, M., & Giller, H. (1983). *Juvenile delinquency. Trends and perspectives*. Harmondsworth, Middlesex: Penguin.

- Rutter, M., Tizard, J., Yule, W., Graham, P., & Whitmore, K. (1976). Research report: Isle of Wight studies. *Psychological Medicine*, 6, 313-332.
- Safer, D., & Allen, R. (1976). *Hyperactive children: Diagnosis and management*. Baltimore, MD: University Park Press.
- Schmalings, K. B., & Jacobson, N. S. (1987, Nov.). *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, MA.
- Singer, D. G. (1982). Television and the developing imagination of the child. In D. Pearl, L. Bouthet, & J. Lazar (Eds.), *Television and behavior: Ten years of scientific progress and implications for the eighties*. Washington, DC: U.S. Government Printing Office.
- Singer, J. L., & Singer, D. G. (1983). Implications of childhood television viewing for cognition, imagination, and emotion. In J. Bryant & D. R. Anderson (Eds.), *Children's understanding of television* (pp. 265-298). New York: Academic Press.
- Slaby, R., & Guerra, N. (1988). Cognitive mediators of aggression in adolescent offenders: 1. Assessment. *Development Psychology*, 24, 580-588.
- Spence, S. H. (1983). Teaching social skills to children. *Journal of Child Psychology and Psychiatry*, 24(4), 621-7.
- Spitzer, A., Webster-Stratton, C., & Hollinsworth, T. (1991). Coping with conduct-problem children: Parents gaining knowledge and control. *Journal of Clinical Child Psychology*, 20, 413-417.
- Spivack, G., Platt, J. J., & Shure, M. B. (1976). *The problem solving approach to adjustment*. San Francisco: Jossey-Bass.
- Spivack, G., & Shure, M. B. (1974). *Social adjustment of young children: A cognitive approach to solving real-life problems*. San Francisco: Jossey-Bass.
- Stoneman, Z., Brody, G., & Burke, M. (1988). Marital quality, depression, and inconsistent parenting: Relationship with observed mother-child conflict. *American Journal of Orthopsychiatry*, 59, 105-117.
- Sturge, C. (1982). Reading retardation and antisocial behavior. *Journal of Child Psychology and Psychiatry*, 23, 21-31.
- Thomas, A., & Chess, S. (1977). *Temperament and development*. New York: Brunner/Mazel.
- Wahler, R., & Dumas, J. (1985). Maintenance factors in coercive mother-child interactions: The com-
- Wahler, R. G. (1980). The insular mother: Her problems in parent-child treatment. *Journal of Applied Behavior Analysis*, 13, 207-219.
- 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.
- Walker, H. M., & Buckely, N. K. (1973). Teacher attention to appropriate and inappropriate classroom behavior: An individual case study. *Focus on Exceptional Children*, 5, 5-11.
- Walker, J. L., Lahey, B. B., Hynd, G. W., & Frame, C. L. (1988). Comparison of specific patterns of antisocial behavior in children with conduct disorder with or without hyperactivity. *Journal of Consulting and Clinical Psychology*, 55, 910-1013.
- Webster-Stratton, C. (1981a). Modification of mothers' behaviors and attitudes through a 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 behavior. *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). Mother perceptions and mother-child interactions: Comparison of a clinic-referred and a non-clinic group. *Journal of Clinical Child Psychology*, 14(4), 334-339.
- Webster-Stratton, C. (1985b). Predictors of treatment outcome in parent training for conduct disordered children. *Behavior Therapy*, 16, 223-243.
- Webster-Stratton, C. (1989a). The relationship of marital support, conflict and divorce to parent perceptions, behaviors and childhood conduct problems. *Journal of Marriage and the Family*, 51, 417-430.
- Webster-Stratton, C. (1989b). Systematic comparison of consumer satisfaction of three cost-effective

- Webster-Stratton, C. (1990a). Enhancing the effectiveness of self-administered videotape parent training for families with conduct-problem children. *Journal of Abnormal Child Psychology*, 18(5), 479-492.
- Webster-Stratton, C. (1990b). 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. (1990c). Stress: A potential disruptor of parent perceptions and family interactions. *Journal of Clinical Child Psychology*, 19(4), 302-312.
- Webster-Stratton, C. (1991). *A cognitive social skills training manual and videotape series for preschool children. The Dinosaur Curriculum*. Seattle, WA.
- Webster-Stratton, C. (1992a). *How to Support Your Child's Education*. The Parents and Children Videotape Series: Seattle, WA.
- Webster-Stratton, C. (in press). Advancing Videotape Parent Training: A Comparison Study. *Journal of Consulting and Clinical Psychology*.
- 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., & Herbert, M. (in press). What really happens in parent training anyway? *Behavior Modification*.
- 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.
- Webster-Stratton, C., & Spitzer, A. (1991). Reliability and validity of a parent Daily Discipline Inventory: DDI. *Behavior Assessment*, 13, 221-239.
- Wells, K. C., & Egan, J. (1988). Social learning and systems family therapy for childhood oppositional disorder: Comparative treatment outcome. *Comprehensive Psychiatry*, 29, 138-146.
- White, J., Moffit, T., Earls, F., & Robins, L. (1990). Preschool predictors of persistent conduct disorder and delinquency. *Criminology*, 28, 443-454.

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