

Long-Term Follow-Up of Families with Young Conduct Problem Children: From Preschool to Grade School

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Conducted a long-term follow-up of 83 mothers and 51 fathers who had received one of three parent training programs 3 years earlier for their preschoolers' conduct problems. Follow-up results indicated overall improvements in parent reports of the children's behaviors compared to baseline reports. However, only treatment that combined videotape modeling with therapist-led group discussion achieved stable improvements. Evaluation of the "clinical significance" of the treatment programs indicated that, after 3 years, 25% to 46% of parents and 26% of teachers reported significant child behavior problems. The families whose children were maladjusted were characterized by single-parent status, increased maternal depression, lower social class status, and family history of alcoholism and drug abuse.

The need to help families whose children develop conduct problems during their preschool years is particularly important, not only because these children are at increased risk for abuse by their parents, but also because the research clearly shows that, in the absence of treatment, child conduct problems typically intensify following entry into school and put the children at increased risk for peer rejection, school dropout, alcoholism, drug abuse, and delinquency (Kazdin, 1985; Loeber, 1985; Loeber & Dishion, 1983; Robins, 1981). Moreover, the literature also suggests that chronic delinquents are likely to have shown an early age of onset of aggressive behaviors (Loeber, 1982).

Prior studies have suggested that, in general, parent training intervention programs are an effective approach for helping parents reduce aggressive and oppositional behaviors in their children (Kazdin, 1985). Such child behavior improvements have been shown to persist at least up to 1 year posttreatment for two thirds of families (Forehand & Atkeson, 1977; Patterson & Fleischman, 1979; Webster-Stratton, 1982). However, many questions still remain

about the long-term efficacy of parent training. Few studies exist that have conducted prospective long-term follow-ups of families who received treatment for conduct problems when their children were preschoolers. Most studies have conducted follow-ups of treated preadolescent and adolescent conduct problem children (Patterson, Chamberlain, & Reid, 1982). It has yet to be determined whether children who are identified as highly aggressive during their preschool years and whose families are offered an intensive parent training treatment will have more positive long-term outcomes in terms of school adjustment, peer relationships, and parent-child relationships.

Recently, Webster-Stratton, Kolpacoff, and Hollinsworth (1988) conducted a study to determine the active change-inducing elements of a parent-training program based on group discussion and videotape modeling. One hundred one families of conduct problem children completed one of three randomly assigned treatment conditions: an individually self-administered videotape modeling treatment (IVM), a therapist-led group discussion videotape modeling treatment (GDVM), and a therapist-led group discussion treatment (GD). Immediate posttreatment results suggested that all three treatment programs resulted in significant parent attitudinal and parent-child behavioral improvements that were maintained 1 year later. There were relatively few differences among the three treatment conditions, although differences found at both immediate and 1-year follow-up assessments consistently favored GDVM treatment. Approximately 70% of the sample showed "clinically significant" improvements according to parent reports, and 50% according to

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parent-child behavior measures, regardless of the type of treatment condition (Webster-Stratton, Hollinsworth, & Kolpacoff, 1989).

The purpose of this study was to extend the earlier study (Webster-Stratton et al., 1988) and to follow up the families 3 years later, by which time all the children were enrolled in school. The objectives were to determine (a) whether there were long-term differences among treatment groups, (b) whether there were more or fewer treatment relapses at 3-year follow-up, (c) the extent to which children were in the "normal" range of functioning at home and at school, and (d) the characteristics of families whose children did not fall in the "normal" range for behavioral functioning according to teachers or parents.

Method

Subjects

The subjects in the study were 101 mothers and 70 fathers with conduct problem preschoolers (mean age = 4.5 years), who had completed more than 50% of the sessions of a 10-week parent training program as well as the immediate posttreatment assessments approximately 3 years previous to this study. In order for parents to be admitted to the treatment program, the primary referral problem for the children had to be excessive noncompliance, aggression, and oppositional behavior for more than 6 months; the children had to be rated by their parents in the clinical range according to the Eyberg Child Behavior Inventory (ECBI; Eyberg & Ross, 1978; Robinson, Eyberg, & Ross, 1980), and the children had to be between 3 and 7 years old. The mean number of child behavior problems pretreatment according to the ECBI was 21.3 ($SD = 6.2$), indicating that the children were clearly in the clinical range according to Eyberg and Ross (1978; non-clinic $M = 6.8 \pm 3.9$).

Prior to the onset of parent training, data were collected for each family with regard to socioeconomic variables, parental perceptions of their children's behaviors, psychological variables, and home observations of parent-child interactions (Robinson & Eyberg, 1981). After 3 to 4 weeks of baseline data collection, families were randomly assigned to one of three parent treatment programs: IVM, GDVM, and GD. The parents assigned to the IVM condition met weekly for 10 to 12 self-administered videotape sessions. They saw the same videotapes as the parents in the GDVM condition without the benefit of therapist feedback or group support. Parents assigned to the GDVM treatment met weekly for ten to twelve 2-hr sessions in groups of 10 to 15 parents. A therapist led a group discussion focused on over

200 videotape vignettes of parent-child interactions. The parents assigned to the GD condition met weekly for ten to twelve 2-hr sessions in groups of 10 to 15 parents. A therapist led a group discussion of the same topics as in the GDVM treatment, but without the benefit of videotape examples. Of the original 101 families who were treated, 94 mothers (93.1%) and 60 fathers (85.7%) and their children were reassessed 1 year after treatment. Three years later, 83 mothers (82.1%) and 51 fathers (72.8%) and their children completed follow-up assessments. Of the 18 mothers and 19 fathers lost to follow-up, 7 had no forwarding address and 12 refused to participate or failed to return the questionnaires. At the 3-year follow-up, approximately half the children (56.5%) were in Grade 1, and the remainder were in Grades 2 to 4. The mean age of the children at follow-up was 7.5 years (range = 6 to 11 years).

Measures

The following widely utilized parent report measures have previously been described in detail (Webster-Stratton et al., 1988). The parent reports of the children's adjustment included the Child Behavior Checklist (CBCL; Achenbach & Edelbrock, 1983), which was completed by mothers and fathers pretreatment and posttreatment and 1 year and 3 years posttreatment. The teacher reports of the children's adjustment, completed at 3-year follow-ups when all the children had entered school, included the Teacher Report Form (TRF; Achenbach & Edelbrock, 1983). At baseline and immediately posttreatment when children were younger, teacher reports included the Behar Preschool Behavior Questionnaire (PBQ; Behar, 1977). At the 1-year and 3-year follow-ups, parents also completed a follow-up satisfaction questionnaire to assess their concerns about the nature and frequency of any ongoing child behavior problems. Parents were asked whether they had sought further psychotherapy or medication, either for their child or for themselves, in the 3 years following treatment at the University of Washington School of Nursing Parenting Clinic. They were also asked whether they wanted more therapy for themselves or their child.

In addition to completing reports of their children's adjustment, mothers and fathers also completed measures of personal psychological adjustment, family factors, and ecological variables. The measures of parent personal adjustment included the Beck Depression Inventory (Beck, 1970) and the Dyadic Marital Adjustment Scale (Locke & Wallace, 1959). Family ecological variables included the Life Experiences Survey (Sarason, Johnson, & Siegel, 1978), and demographic information included income level and Hollingshead and Redlich's (1958)

Two-Factor Index based on education and occupation. In addition, families were interviewed with regard to the presence of alcoholism, drug abuse, and mental illness in the immediate family and in the extended family.

Results

The short-term and 1-year results of this study have been reported elsewhere (Webster-Stratton et al., 1988). Therefore, only the 3-year follow-up data are presented in detail here. Analyses comparing the families who dropped out at the 3-year follow-up with those who remained indicated no significant differences in terms of demographic variables, age of child, parent or teacher reports of child adjustment, parent psychological status, or life stressors at either the pretreatment or posttreatment assessment.

Analyses of the parent reports of their children's adjustment initially consisted of repeated-measures analyses of variance (ANOVAs) with one between-groups factor with three levels (Treatment Group: IVM, GDVM, GD) and one within-group factor with three levels (Time: Pretreatment, 1-Year Follow-Up, 3-Year Follow-Up) conducted to determine group, time, or interaction effects. Next, the following preplanned comparisons were performed for each treatment group: (a) pretreatment versus 3-year follow-up, (b) 1-year versus 3-year follow-up, and (c) each of the three treatment groups compared

with each other at the 3-year follow-up. Paired *t* tests were performed to describe the changes over these time periods (adjusted by Bonferroni for the number of individual comparisons). Means and standard deviations for parent reports are included in Table 1.

Repeated-measures ANOVAs revealed significant ($p < .001$) time effects for both the mothers' and fathers' CBCL T scores and significant Time \times Group interaction effects for mother reports on the CBCL Externalizing T scores, $F(4, 148) = 2.8$, $p < .03$, suggesting that the mothers' perceptions of change over time varied as a function of treatment. There were no interaction effects for the father report data. Preplanned comparisons for the time and interaction effects indicated that, when 3-year follow-up data were compared with baseline pretreatment scores, mothers and fathers from all three treatment groups combined continued to perceive significantly ($p < .001$) reduced total behavior problems and significantly increased child social competence according to the CBCL. Analyses comparing 1-year to 3-year follow-up data revealed a significant ($p < .01$) deterioration in GD mothers' and fathers' Externalizing T Scores and in IVM mothers' Total Problem T scores, whereas GDVM mothers' and fathers' scores remained stable.

Further analyses comparing the three treatment groups with each other indicated that at the 3-year follow-up, GDVM fathers reported significantly

Table 1. Comparison of Parent Report Measures: Pretreatment and 1-Year and 3-Year Follow-Up Means

Report Measure	Pretreatment			1-Year Follow-Up			3-Year Follow-Up		
	GDVM	GD	IVM	GDVM	GD	IVM	GDVM	GD	IVM
Parent CBCL									
Total Behavior Problem Score									
Mother	68.56 (7.31)	66.52 (9.73)	66.03 (10.23)	55.21 (10.56)	59.30‡ (9.38)	55.09‡ (13.65)	56.40*** (10.22)	62.68 (10.33)	59.35*** (12.16)
Father	65.50 (7.62)	65.08 (5.71)	67.60 (6.12)	51.17 (10.79)	51.82‡ (9.54)	57.47 (11.05)	48.58*** (10.32)	56.92** (9.84)	57.95** (11.42)
Parent CBCL									
Externalizing Score									
Mother	70.40 (7.72)	66.36 (7.58)	70.09 (11.21)	56.54 (11.33)	56.61‡ (8.79)	58.91 (13.38)	58.84*** (10.95)	61.24** (10.58)	61.09*** (11.28)
Father	67.42 (5.63)	66.33 (7.30)	69.70 (11.41)	53.17 (9.52)	54.00‡ (10.15)	60.53 (11.12)	50.50*** (8.97)	61.33 (11.05)	60.40* (10.52)
Parent CBCL									
Total Social Competence Score									
Mother	39.24 (10.77)	35.60 (10.43)	39.23 (9.20)	47.79 (16.00)	42.69 (13.71)	44.84 (12.27)	43.88* (9.79)	41.88** (9.18)	45.44*** (9.17)
Father	40.38 (8.63)	37.33 (10.71)	39.80 (9.81)	50.33 (14.90)	43.18 (9.35)	43.18 (10.01)	46.23 (12.32)	43.75 (7.07)	43.40 (8.49)

Note: Numbers in parentheses are standard deviations.

* $p < .05$, one-tailed. ** $p < .01$, one-tailed. *** $p < .001$, one-tailed. † $p < .05$, two-tailed. ‡ $p < .01$, two-tailed.

lower CBCL Total Behavior Problem T scores, $t(25) = -2.09, p < .04$, and Externalizing scores, $t(25) = -2.88, p < .008$, than GD fathers. GDVM fathers also reported significantly lower CBCL Total Behavior Problem T -scores, $t(31) = -2.24, p < .03$, and lower Externalizing scores, $t(31) = -2.84, p < .008$, than IVM fathers. There were no significant differences between GD parents' and IVM parents' scores on the CBCL.

Analyses of the 3-year follow-up satisfaction questionnaire revealed that 49 mothers (59%) and 20 fathers (45.5%) were still concerned about some behavior problems with their children. Over 30% of mothers and fathers expressed concerns related to continuing aggression, noncompliance, peer difficulties, and hyperactivity. Ten of the families (10.7%) had received additional outside therapy for their children's behavior problems during the 3 years following treatment, whereas 16 mothers (19.3%) and 7 fathers (14.9%) requested further therapy to deal with their children's problems. Nine of the children (10.8%) were on medication for attention deficit disorder, and 14 (16.5%) were in special education classrooms. Additionally, 6 mothers and 5 fathers indicated they wanted help for marital problems, and 8 mothers and 2 fathers wanted help for depression. In 15 families (16.7%), there had been a divorce, separation, or a new partner in the home during the 3 years following treatment. Chi-square analyses revealed no significant differences between treatment groups in the number or type of child or family problems encountered, number of children receiving medication or in special education, or type of further therapy needed at the 3-year follow-up.

Clinical Impact of Treatment and Characteristics of Responders and Nonresponders

These results suggest that the GDVM treatment was somewhat superior to the other treatments according to mother reports in terms of producing stable long-term results; however, all three treatments produced some statistically significant changes that were maintained at the 3-year follow-up. In order to assess the "clinical significance" of these findings, several criteria were used. The first two criteria were the extent to which parent and teacher reports of the children's adjustment were within the normal or nonclinical range of functioning (Jacobson, Follette, & Revenstorf, 1984). Therefore, in order for a child to be classified as a responder to treatment, the parent and teacher each had to report a T score of 63 or lower (raw score = 37 to 42) on the parent CBCL Total Behavior Problem score and on the TRF. This cutoff score

was employed because Achenbach and Edelbrock (1983) reported this score as the highest cutoff point between normalcy and deviancy (90th percentile). The third criterion to indicate treatment response was whether or not families continued to request further therapy for their children's behavior problems at the 3-year follow-up. These three outcome criteria were chosen in order to avoid reliance on a single informant or criterion measure and to provide validity to the findings.

The final purpose of our study was to determine the psychological, demographic, and family characteristics of those children who were classified as responders or nonresponders to treatment. Therefore, once children were characterized as responders or nonresponders according to the three criteria heretofore outlined, they were then compared on the bases of parent psychological factors (depression, alcoholism, drug abuse), demographic factors (education, occupation, income), family support factors (marital satisfaction or discord, single-parent status), environmental factors (negative life stressors), and extended family factors (alcoholism, depression, mental illness).

Results at the 3-year follow-up indicated that 44 mothers (53.7%) and 35 fathers (74.5%) reported their children as having CBCL scores in the normal range; these were classified as responders to treatment. Analyses indicated that the 38 mothers whose CBCL reports classified their children as nonresponders also reported significantly more depression, $t(80) = -2.31, p < .02$, and were significantly more likely to be single or divorced, $\chi^2(1, N = 81) = 13.33, p < .001$. In fact, 81.8% of the children from single-parent families (vs. 33.33% of the children from intact families) were nonresponders. Only four children of single-parent mothers were classified as responders with CBCL scores in the normal range! Mothers of nonresponder children also reported a significantly lower income, $\chi^2(1, N = 81) = 14.52, p < .002$, and more alcoholism in their immediate families, $\chi^2(1, N = 81) = 4.54, p < .03$, than the mothers of children classified as responders. However, there were no significant differences between children classified as responders and nonresponders on marital satisfaction scores, father depression or drug abuse, negative life events, social class based on occupation and education, onset of child's behavior problems, or extended family factors.

Of the children whose fathers were involved, 12 were classified as nonresponders according to father reports on the CBCL. These fathers came from families with significantly worse social position scores (education and occupation) than fathers of responders, $t(45) = -2.10, p < .05$. There were no other significant differences between the fathers' reports of

child responders and nonresponders on any of the other psychological and family characteristics.

At baseline, according to teacher reports, 47 (61%) of the children were reported as behaving within the normal range according to the PBQ. Another 30 children (39.0%) were reported by teachers to be in the deviant range (6 were not enrolled in preschools or day care). Of those 30 children originally reported as deviant according to teachers' PBQ scores, 16 (53.3%) improved and were in the normal range of functioning according to teacher TRF scores 3 years later, and 14 (46.7%) remained abnormal. Of the 47 children who were previously reported by preschool teachers as behaving normally, 6 (12.8%) became significant problems in school 3 years later according to TRF scores. Therefore, at the 3-year follow-up, of all the children in school, 61 children (73.5%) had teacher TRF scores in the normal range, whereas 22 children (26.5%) had scores in the deviant range for behavioral conduct according to the TRF. These 22 children, classified as nonresponders, were significantly more likely to come from families in which the mothers were single or divorced, $\chi^2(1, N = 76) = 6.72, p < .03$. There were no other significant differences.

The third criterion for treatment success or failure was whether or not a family (mother or father) requested further therapy at the 3-year follow-up assessment. Sixty-eight families (80.0%) did not request further help, whereas 17 families (20.0%) wanted more therapy for their children's behavior problems. The families classified as nonresponders based on this criterion reported significantly more alcoholism in the immediate family, $\chi^2(1, N = 84) = 3.77, p < .05$, and more drug abuse in their extended families, $\chi^2(1, N = 84) = 5.83, p < .01$.

Discussion

One of the purposes of this study was to determine whether there were long-term treatment group differences as well as to determine the maintenance or relapses for each treatment group. Results indicated that, although mothers and fathers from all three treatment groups continued to report fewer total child behavior problems and increased prosocial behaviors at 3-year follow-up in comparison to baseline reports, only GDVM parents showed stable improvements. GD and IVM mother and father reports indicated a significant escalation in their children's externalizing problems from 1-year to 3-year follow-up, whereas GDVM parents maintained their significantly lowered scores. These 3-year follow-up data for parents and children were similar to the immediate posttreatment and 1-year follow-up data, suggesting the long-term stability of the initial posttreatment improvements, particularly for the GDVM program.

The 3-year follow-up findings relative to the "clinical impact" of treatment indicated that approximately 46.3% of mothers, 25.5% of fathers, and 26.5% of teachers reported children to have behavior problems in the deviant or clinical range in their grade-school years. More than one third of the families still had ongoing concerns about their children's aggression, noncompliance, peer problems, and hyperactivity; approximately one third of the families asked for further therapy either for themselves or for their children. Moreover, almost half the children who were reported by their preschool teachers as abnormal according to the PBQ were still reported as abnormal by their grade-school teacher on the TRF 3 years later. These results are similar to other parent training studies, which have suggested that 30% to 50% of treated families fail to maintain clinically significant improvements (Forehand, Furey, & McMahon, 1984; Schmalings & Jacobson, 1987; Wahler, 1980; Wahler & Dumas, 1984; Webster-Stratton, 1985).

Analysis of the characteristics of families whose children continued to have behavior problems indicate that, regardless of whether the outcome criterion was parent or teacher reports, children from single-parent families were most likely to have significant behavior problems. According to mother reports, children who were not behaving normally were most likely to be from single-parent families in which the mothers reported increased depression and low income. According to father reports, child responders were significantly more likely to come from families with a lower social class status. According to teacher reports, children who were maladjusted were also more likely to come from single-parent families. Finally, families who still needed help were characterized by increased alcoholism, drug abuse, and depression in the immediate family.

One limitation of this study deserves comment. For ethical reasons, there was no untreated control group. Therefore, at the 3-year follow-up, it is impossible to determine whether classifying a family as a responder or nonresponder is related to treatment success or failure or due to some other intervening variables. Nonetheless, these long-term follow-up data validate the importance of single-parent status or marital discord, socioeconomic disadvantage, depression, and alcoholism as predictors of poor long-term outcome in terms of child adjustment. The data also suggest that the parents of these nonresponder children had themselves experienced deprived and nonnurturing childhoods with painful memories of alcoholism and drug abuse in their fathers and depression in their mothers. A variety of other studies have arrived at similar conclusions that factors such as single parenthood, isolation, lack of support, low income (Reid & Patterson, 1976; Wahler & Dumas,

1984) and maternal depression (Forehand et al., 1984) are related to poor long-term outcomes for adolescent adjustment.

These results have important implications for clinicians. Children with conduct problems need to be identified at a young age. Preschool teachers are valuable and reliable sources of identifying antisocial children. It must then be recognized that, for many families, parent training alone will not be enough. Families with the characteristics just outlined need to undergo broad-based therapy programs, including therapy for depression, alcoholism, marital conflict, budget planning, problem solving, and strategies for giving and getting support. It is also clear in this study that, for one third of the families, the children's conduct problems may remain a chronic problem in the home and may develop into further problems as the children continued to progress through school. This finding suggests the need for family treatment to provide ongoing and continuous care and monitoring, including the school and teacher in the therapeutic plan. Only by addressing the broader ecological needs of these families as well as their individual psychological problems can we hope to reach those 30% to 46% of families who fail to benefit from traditional treatment approaches. Moreover, only by changing our short-term model of care for these families can we hope to have an impact on their children's antisocial behavior problems, which seem to be transmitted across generations for at least one third of the population.

References

- Achenbach, T., & Edelbrock, C. S. (1983). *Manual for the Child Behavior Checklist and Revised Behavior Profile*. Burlington, VT: University Associates in Psychiatry.
- Beck, A. T. (1970). *Depression: Causes and treatment*. Philadelphia: University of Pennsylvania Press.
- Behar, L. B. (1977). The Preschool Behavior Questionnaire. *Journal of Abnormal Child Psychology*, 5, 265-275.
- Eyberg, S. M., & Ross, A. W. (1978). Assessment of child behavior problems: The validation of a new inventory. *Journal of Clinical Child Psychology*, 7, 113-116.
- Forehand, R., & Atkeson, B. M. (1977). Generality of treatment effects with parents as therapists: A review of assessment and implementation procedures. *Behavior Therapy*, 8, 575-593.
- 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.
- Hollingshead, A. B., & Redlich, F. C. (1958). *Social class and mental illness*. New York: Wiley.
- Jacobson, 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.
- Locke, H. J., & Wallace, K. M. (1959). Short marital-adjustment and prediction tests: Their reliability and validity. *Marriage and Family Living*, 21, 251-255.
- Loeber, R. (1982). The stability of antisocial and delinquent child behavior: A review. *Child Development*, 53, 1431-1446.
- Loeber, R. (1985). Patterns and development of antisocial child behavior. In G. J. Whitehurst (Ed.), *Annals of child development* (Vol. 2, pp. 77-116). Greenwich, CT: JAI.
- Loeber, R., & Dishion, T. J. (1983). Early predictors of male delinquency: A review. *Psychological Bulletin*, 94, 68-99.
- 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., & Fleischman, M. J. (1979). Maintenance of treatment effects: Some considerations concerning family systems and follow-up data. *Behavior Therapy*, 10, 168-185.
- Reid, J. B., & Patterson, G. R. (1976). Follow-up analyses of a behavioral treatment program for boys with conduct problems: A reply to Kent. *Journal of Consulting and Clinical Psychology*, 44, 299-302.
- 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.
- Robinson, E. A., & Eyberg, S. M. (1981). The Dyadic Parent-Child Interaction Coding System: Standardization and validation. *Journal of Consulting and Clinical Psychology*, 49, 245-250.
- Robinson, E. A., Eyberg, S. M., & Ross, A. W. (1980). The standardization of an inventory of child conduct problem behaviors. *Journal of Clinical Child Psychology*, 9, 22-28.
- Sarason, I. G., Johnson, J. H., & Siegel, M. (1978). Assessing the impact of life changes: Development of the Life Experiences Survey. *Journal of Consulting and Clinical Psychology*, 46, 932-946.
- Schmaling, K. B., & Jacobson, N. S. (1987, November). *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.
- 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.
- Webster-Stratton, C. (1982). The long-term effects of a videotape modeling parent-training program: Comparison of immediate and 1-year follow-up results. *Behavior Therapy*, 13, 702-714.
- Webster-Stratton, C. (1985). Predictors of treatment outcome in parent training for conduct disordered children. *Behavior Therapy*, 16, 223-243.
- 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, 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, 558-566.

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