

THE EFFECTS OF FATHER INVOLVEMENT IN PARENT TRAINING FOR CONDUCT PROBLEM CHILDREN

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Abstract—Thirty families who received parent training for conduct-disordered children were divided into two groups, father-involved families and father-absent families. Immediately post-treatment both groups reported significant improvements in their children's behaviors. Behavioral data showed significant increases in mother praises and reductions in mother negative behaviors, child non-compliance and deviancy. One year later the children continued to show reductions in non-compliance and deviance. However, significantly more of the mother-child dyads who maintained behavioral improvements came from father-involved families.

Keywords: Father, parent training, conduct problems

INTRODUCTION

THE scope of the problem in regard to childhood conduct disorders is large. Approximately two-thirds of all children referred to psychological and social service agencies are eventually labelled oppositional, aggressive or 'conduct disordered'. The need to develop and evaluate effective interventions that alter aggressive behavior in children is particularly important because studies consistently show that conduct-disordered children are at high risk for developing psychiatric disability as adults, particularly for juvenile delinquency and crime (Robins, 1966, 1978).

In response to the large numbers of children with conduct disorders, there has been an increased emphasis over the past decade to train parents as therapists for their own children. In a number of research reports (Berkowitz & Graziano, 1972; Johnson & Katz, 1973; Moreland, Schwebel, Beck & Wells, 1982), investigators have concluded that parent training is an effective treatment for such children. However, more recently research which has investigated the long-term effects of these programs has indicated that training parents is not always effective and does not guarantee lasting measurable effects for all parents (Forehand, Sturgis, McMahan, Aguar, Green, Wells & Breiner, 1979; Johnson & Christensen, 1975; Patterson, 1974; Wahler, 1980).

Some investigators have begun to examine why parent training programs work for some families and not for others. Reisinger, Frangia and Hoffman (1976) found treatment failure connected to marital problems. Strain, Young and Horowitz (1980) found that single-parent families were more likely to drop out of parent

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training than intact families. Strain (1980) also found that intact families were more successful in maintaining treatment effects than single-parent families. These studies seem to suggest that father involvement is an important factor in the maintenance of treatment effects. However, there has been very little systematic research comparing father-involved families with father-absent families in terms of long-term parent training effectiveness. In fact, the majority of parent training studies seem to have focused on mothers, and fathers have been largely ignored (Graziano, 1977). It is mostly the mothers who receive behavioral parent training and not fathers. Research has given very little attention to fathers or boyfriends and how their involvement in and response to parent training programs compares with their partners and affects treatment durability. In one of the few studies which did assess the effects of father involvement in parent training the researchers concluded that it did not matter whether the father was included in the intervention (Martin, 1977). However, this study had several limitations and assessed effectiveness only in terms of telephone reports and interviews rather than observations of parent or child behavioral changes. Clearly more research is needed in order to understand the importance of father involvement in parent training.

Therefore, the purpose of this study was to answer three questions: (1) how fathers respond to parent training in terms of attitudinal changes towards their children and overall treatment satisfaction; (2) how fathers' attitudes compare with their partners' perceptions; and (3) how father-involved families compare with father-absent families in terms of attitudinal and mother-child behavioral improvements. Each of these questions will be evaluated in terms of immediate post-treatment outcomes and long-term maintenance.

METHOD

Subjects

Subjects were recruited from a behavioral clinic in a local pediatric hospital which had a specialized program for the treatment and evaluation of children with conduct problems. Criteria for study entry were the following: (a) the child was between 3 and 8 years old, (b) the child had no debilitating physical impairment, intellectual deficit or history of psychosis, (c) the primary referral problem was child oppositional behaviors (e.g. refusal to follow requests, tantrums, aggression).

Thirty families were admitted to the study and were divided into two groups, father-involved families ($n = 18$) and father-absent families ($n = 12$). In order to be classified as a father-involved family there had to be a father, boyfriend or stepfather who cared for the target child either with the mother or separately in his own home. In addition, he had to be willing to be involved in the assessment procedures and some of the therapy sessions. Father-absent families had no father or boyfriend living in the home or involved with the child in terms of the assessment and treatment program.

Father-involved families included 14 boys and four girls with a mean age of 58.1 months and father-absent families consisted of seven boys and five girls with a mean age of 62.2 months. For the father-involved group there were six boyfriends, one stepfather and 11 biological fathers. The mean age of fathers was 32.7 years. The mean socioeconomic status score for father-involved families was 48.5 and for the father-absent families 55.1, indicating that both groups of families were lower middle to lower class, as determined by Hollingshead and Redlich's (1958) Two Factor Index of Social Position. The two groups did not differ significantly on this index of social class. However, since marital status differed between the two groups, there was a significant difference between the groups in terms of income. Table 1 presents these demographics for both groups.

Procedures

Prior to the onset of parent training, data were collected for each family in regard to socioeconomic

TABLE 1. DEMOGRAPHIC VARIABLES

Variables	Father-involved families (n = 18)		Father-absent families (n = 12)	
	\bar{x}	S.D.	\bar{x}	S.D.
Child's mean age (months)	58.1	± 17.9	62.2	± 19.3
Father's mean age	32.7	± 5.6	*	
Mother's mean age	30.6	± 5.4	31.1	± 7.3
Child's sex*				
Male	14		7	
Female	4		5	
Father's Education*				
Graduate school	1		‡	
College complete	5		‡	
Some college	3		‡	
High school	9		‡	
Mother's Education*				
Graduate school	1			
College complete	3			
Some college	4		4	
High school	10		8	
Socioeconomic Class*†				
Social class 2	1			
Social class 3	5		4	
Social class 4	8		3	
Social class 5	4		5	
Mean total score	48.5	± 13.5	55.1	± 13.1
Income*				
Welfare	4		8	
12,000-23,000	8		3	
24,000 +	6		1	

*Reflects actual numbers in each category.

†Based on Hollingshead and Redlich's (1958) Two Factor Index of Social Position.

‡Not applicable.

variables, and attitudinal and behavioral measures. After 3-4 weeks of baseline data collection the 30 families received parent training which consisted of a series of nine 2-hr weekly training sessions. The first 4 weeks of the treatment program included a modification of the interactional model (Hanf & Kling, 1983) focusing on positive interactional and play skills. The last 5 weeks focused on teaching parents a specific set of operant techniques such as principles of praise, ignoring, giving commands and Time Out for child non-compliance and destructive behaviors. A complete description of the treatment programs is available from the author. Fathers attended an average of 6.7 (± 3.5) treatment sessions and 13.6 (± 6.7) hr of therapy, whereas their partners attended an average of 8.8 (± 1.1) treatment sessions and 16.9 (± 3.2) hr of therapy. Fathers received the same training on father-child problems as the mothers did with their problems. Mothers from the father-absent group attended 8.8 (± 1.4) treatment sessions and 15.0 (± 1.9) hr of therapy. Three months after baseline and treatment the 30 families were again retested on all the same measures. One year post-treatment, long-term effects were assessed by retesting 29 of the 30 families.

Measures

Achenbach Child Behavior Checklist (CBCL). The CBCL consists of 118 behavior problem items and has been shown to discriminate clinic-referred and non-referred children. Intraclass correlations were 0.98 for interparent agreement, 0.84 for 1-week test-retest reliability and 0.95 for inter-interviewer reliability (Achenbach & Edelbrock, 1981).

Eyberg Child Behavior Inventory (ECBI). The ECBI, a 36-item inventory, is applicable for children 2-16 years of age. Previous research with normative samples of 512 children has demonstrated reliability coefficients for the ECBI scales from 0.86 (test-retest) to 0.98 (internal consistency). The inventory correlates well with independent observations of the children's behaviors and differentiates clinic-referred and non-clinic populations (Eyberg & Ross, 1978; Robinson, Eyberg & Ross, 1980).

Home observations. All mother-child dyads were observed according to the Dyadic Parent-Child Interaction Coding System (DPICS) (Robinson & Eyberg, 1981). The DPICS consists of 29 separate behavior categories covering parent and child behaviors which are coded every time they occur during each 5-min segment. From the behavior categories four separate summary variables were formed for mother behaviors: total praise (labeled and unlabeled praise); total commands (direct and indirect commands); critical statements; and physical negative behaviors. For the target child behaviors there were two variables: total child deviancy (sum of the frequency of whine + cry + physical negative + smart talk + yell + destructive) and total non-compliance behaviors (defined as failure to respond to a command within 5 sec after the command is issued).

These behavior observations were obtained by making two home visits at each assessment period whereby the mother-child dyad was observed for 30 min at each visit. All observations took place in late afternoon between 4:30 and 7:30 p.m. with all family members present. Home observations were made by trained observers who were blind to the hypotheses of the study. They received extensive training initially and then ongoing weekly training sessions and practice of videotaped interactions to maintain accuracy. To assess reliability, two observers were used on 50% of all observations. Reliability was calculated in two ways: the ratio of % agreements/total No. of agreements and disagreements and Pearson product-moment correlations between ratings for each separate behavior category. The % agreement reliability was calculated for each 5-min segment and was based only on occurrence of behaviors noted, not non-occurrence. Mean overall inter-rater reliability was 78.6%. The product-moment correlations calculated between observers ranged from 0.78 to 0.97 for the six mother and child behavior categories.

Consumer Satisfaction Questionnaire. This measure was adapted from the work of Forehand and McMahon (1981) and consisted of 40 items with a seven-point Likert scale response format. This measure was given 3-4 weeks post-treatment and 1 year post-treatment and was not administered by the therapist. Parents were told their responses would be anonymous. Statements were made to which the parent could respond on the basis of strongly agree to strongly disagree. Responses were transformed into scores of one to seven, with seven being the most positive. There were three subscales which measured parents' perceptions or attitudes about the following: child behavior improvement post-treatment (11 items); difficulty (seven items); and usefulness (seven items) of specific parenting content and skills taught (ignore, Time Out, play skills, commands). Internal consistency of the three individual subscales ranged from 0.71 to 0.90.

RESULTS

Analyses of data initially consisted of a one-way repeated measures analysis of variance (ANVAR) performed on each dependent measure. Then the following preplanned comparisons were made: (1) pretreatment vs immediately post-treatment; (2) pretreatment vs 1-year follow-up; and (3) immediately post-treatment vs 1-year follow-up. For each dependent variable the Dunn-Bonferonni tables were used to determine the critical values in order to correct for the number of individual comparisons. Tables 2 and 3 present the mean scores and standard deviations at baseline, immediately post-treatment and 1-year follow-up for each of the dependent variables

TABLE 2. MEANS AND DUNN-BONFERONNI MULTIPLE COMPARISONS OF MOTHER AND FATHER ATTITUDINAL MEASURES FOR FATHER-INVOLVED AND FATHER-ABSENT FAMILIES

Parent attitude scores	Groups	Pretreatment		Immediately post-treatment		One-year follow-up	
		\bar{x}	S.D.	\bar{x}	S.D.	\bar{x}	S.D.
Eyberg Child Behavior Inventory							
Problem score	father partner	17.1 ± 8.5		8.7 ± 9.3††		9.0 ± 8.5**	
	mother partner	23.6 ± 6.8		9.7 ± 6.9†††		9.2 ± 8.7***	
	mother alone	18.3 ± 6.9		8.2 ± 8.7†††		7.3 ± 6.0***	
Intensity score	father partner	142.0 ± 21.8		115.8 ± 24.9††		114.2 ± 30.2*	
	mother partner	165.2 ± 26.6		113.5 ± 22.0†††		125.7 ± 32.1***	
	mother alone	144.9 ± 27.3		100.2 ± 20.5†††		103.1 ± 19.6***	
Achenbach Behavior problem score							
father partner	father partner	62.7 ± 27.0		41.1 ± 23.9††		42.8 ± 29.7**	
	mother partner	69.8 ± 34.0		46.3 ± 26.8†††		44.5 ± 26.2***	
	mother alone	66.1 ± 22.1		38.0 ± 19.3†††		36.3 ± 10.4***	
Treatment evaluation							
Improvement	father partner			65.9 ± 5.7		64.5 ± 6.5	
	mother partner			66.7 ± 6.7		66.2 ± 7.7	
	mother alone			71.8 ± 5.0		71.4 ± 7.3	
Difficulty	father partner			5.5 ± 0.74		5.5 ± 0.78	
	mother partner			5.0 ± 1.6		5.3 ± 0.95	
	mother alone			5.3 ± 0.99		5.2 ± 1.1	
Usefulness	father partner			6.3 ± 0.70		6.1 ± 0.76	
	mother partner			6.4 ± 0.83		6.2 ± 0.80	
	mother alone			6.6 ± 0.51		6.5 ± 0.86	

Note: There were no significant differences between mother and father attitude scores immediately post-treatment or at 1-year follow-up. All comparisons from immediately post-treatment results to 1-year follow-up results were non-significant.

* $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$: comparison of 1-year follow-up with pretreatment scores.

† $P < 0.05$; †† $P < 0.01$; ††† $P < 0.001$: comparison of immediate post-treatment with pretreatment scores.

for the father-involved group and their partners, as well as for the father absent or mother alone group.

Attitudinal measures

Repeated measures ANVAR indicated significant F values ($P < 0.001$) for all three father report variables. When immediately post-treatment results were compared with pretreatment data, fathers reported significantly lower scores on the CBCL [$t(16) = 4.27$, $P < 0.01$] and significantly fewer total number and intensity of behavior problems on the ECBI [$t(16) = 3.98$, $P < 0.01$ and $t(15) = 3.26$, $P < 0.01$]. There continued to be significant decreases in these three father report variables when 1-year follow-up data were compared with pretreatment data. Moreover, there were no significant changes when immediately post-treatment results were compared with 1-year follow-up data, indicating that the significant treatment effects noted immediately post-treatment were maintained over the year following treatment. Finally, at both the 1-month post-treatment assessment and the 1-year follow-up,

TABLE 3. MEANS AND DUNN-BONFERONNI MULTIPLE COMPARISONS OF MOTHER AND CHILD INTERACTIONS FROM FATHER-INVOLVED AND FATHER-ABSENT FAMILIES

Behavior variables	Groups	Pretreatment		Immediately post-treatment		One-year follow-up	
		\bar{x}	S.D.	\bar{x}	S.D.	\bar{x}	S.D.
Mother behaviors							
Critical statements	mother partner	9.58 ± 6.6		4.28 ± 2.0††		3.50 ± 3.2***	
	mother alone	14.46 ± 10.4		9.46 ± 7.3†		8.50 ± 6.2	
Physical negative	mother partner	0.97 ± 1.4		0.67 ± 1.9		0	
	mother alone	1.58 ± 2.0		1.67 ± 2.3		2.04 ± 5.3	
Total commands	mother partner	24.78 ± 14.4		19.33 ± 11.6		15.71 ± 11.4*	
	mother alone	39.36 ± 24.1		34.13 ± 22.3		33.13 ± 25.7	
Total praise	mother partner	3.17 ± 3.3		13.33 ± 8.1†††		10.24 ± 5.3***	
	mother alone	2.21 ± 2.1		10.86 ± 8.0††		7.75 ± 8.1*	
Child behaviors							
Non-compliance	mother partner	4.69 ± 3.3		2.25 ± 2.5†		0.91 ± 1.1***	
	mother alone	9.08 ± 6.8		4.08 ± 2.6††		3.33 ± 2.8***	
Deviance	mother partner	9.61 ± 7.7		3.17 ± 3.7††		1.08 ± 2.2***	
	mother alone	20.21 ± 16.5		6.38 ± 6.7††		2.42 ± 2.3**	

* $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$: comparison of 1-year follow-up with pretreatment scores.

† $P < 0.05$; †† $P < 0.01$; ††† $P < 0.001$: comparison of immediate post-treatment with pretreatment scores.

fathers reported very positive evaluations of the treatment program in terms of useability, acceptability, usefulness and child improvement.

Further analyses compared the father attitudinal reports with their partners' reports in order to determine if there were any differences in the way mothers and fathers responded to parent training. Although at baseline mothers perceived their children's behaviors as being significantly more deviant than fathers on the ECBI immediately after and 1 year following treatment, there were no significant differences between the fathers' and mothers' perceptions of their children's behaviors on either the CBCL or the ECBI measures. In addition, mothers, like the fathers, reported very positive satisfaction with the treatment received. Thus mothers showed significant attitudinal changes nearly identical to their partners' attitudinal changes.

Repeated measures ANVAR indicated significant F values ($P < 0.01$) for all three mother report variables from the mother alone group. Further comparisons indicated that immediately post-treatment and at 1-year follow-up there were significant reductions in the CBCL and the ECBI compared with the baseline. Moreover, when mother reports from father-involved families were compared with mother reports from father-absent families there were no significant differences between the two mother groups on any of the attitudinal measures, either immediately post-treatment or 1 year later.

Behavioral measures

Repeated measures ANVAR indicated significant F values ($P < 0.01$) for the mother and child behavior variables for both the father-involved families and the

father-absent families. Immediately post-treatment mother-child interactional changes from both groups showed significant reductions in mother critical statements and increases in mother praises, while the children showed significant decreases in non-compliance and deviancy compared with baseline. At the 1-year follow-up most of the mother and child behavioral improvements were maintained for both groups. However, the mothers from the father-involved families exhibited significantly fewer negative and critical statements [$t(29) = -2.55, P < 0.02$], while the children from this group showed significantly fewer non-compliance behaviors [$t(29) = -2.81, P < 0.01$], than the mother-child dyads from the father-absent group. Table 3 presents the mean scores and standard deviations at baseline, immediately post-treatment and 1-year follow-up of the mother and child behavior variables for the father-absent and father-involved groups.

Finally, chi-square analysis was performed in order to determine whether father-involved families were likely to respond more favorably to treatment than father-absent families. Families were classified as favorable 'responders' or 'non-responders' to treatment on the basis of the following outcome criteria: total child deviant and non-compliant behaviors had to be reduced 50% from baseline at post-treatment assessment and mother criticism and physical negative behaviors toward their children had to be reduced 50% from baseline measures. These conservative outcome criteria for treatment success have been previously described by Dumas and Wahler (1983) and Patterson (1974).

Immediate post-treatment outcome was found to be favorable for 13 (43%) and unfavorable for 17 (57%) of the families. Chi-square analysis indicated that 76.9% of responders to treatment were from father-involved families, vs 47% of the non-responders. This was not shown to be a significant difference [$\chi^2(1,29) = 1.63, P < 0.20$]. At the 1-year follow-up 20 families (69%) were found to be favorable responders and nine were unfavorable responders. Chi-square analysis indicated that 75% ($n = 15$) of responders to treatment were father-involved families, vs 22% ($n = 2$) of non-responders. This difference was significant [$\chi^2(1,28) = 5.1, P < 0.02$].

DISCUSSION

This study indicated that the fathers and boyfriends who were involved in a parent training program for conduct-disordered children made significant attitudinal improvements. Immediately post-treatment they perceived their children as having significantly fewer and less intense behavior problems. Moreover, these positive attitudinal changes towards their children were maintained 1 year later. Comparison of father attitudes with their partners' attitudes indicated that there were virtually no differences in father and mother attitudes at either of the two post-treatment assessments, that is, both fathers and mothers reported positive improvements in their children's behaviors. However, despite the positive involvement of fathers in parent training, this did not seem to result in any significant differences in mother attitudes between those mothers who came from father-involved families and those who came from father-absent families. Both groups of mothers reported significant attitudinal improvements.

The second important finding was that when mother and child behavior changes were assessed in terms of treatment effects there were significant differences in treatment outcome between father-involved and father-absent families. At the 1-year follow-up significantly more of the mother-child dyads who maintained behavioral improvements came from father-involved families. Of the nine non-responders to treatment only two were from father-involved families. Further analysis of these two families at 1-year follow-up indicated that in one family the parents had recently separated and in the other family there was considerable marital discord. Thus father involvement would seem to enhance the maintenance and generalization of parent training effects.

The implications of this study suggest the importance of involving fathers, boy-friends and stepfathers whenever possible in the assessment and intervention procedure. By training both partners, each can help remind the other of particular parent training techniques as well as reinforce and encourage each other in their efforts. For father-absent families it may be advisable to try to encourage the mother to bring a close friend, regular babysitter or family member to participate in the parent training program. It may also be helpful to plan several 'booster' sessions over the year following training, especially for father-absent single-parent families who do not have a support system at home.

Several limitations of the present study should be noted. First, due to the difficulty of scheduling times when the boyfriend or father was at home, only the mother and child behavior interactions were systematically observed. However, results of this study indicate that future studies should attempt to observe father-child interactions as well. In addition, it may be beneficial to observe mother-father interactions and ways they are supportive or non-supportive to each other's parenting efforts and the effects of this on treatment outcome.

A second important limitation is the failure to match the two groups in terms of family income. As one might expect, more of the father-absent families were on welfare than the father-involved families. However, despite this difference in income, the two groups were equivalent on other socioeconomic variables, as determined by Hollingshead and Redlich's (1958) index of social position based on education and occupation. Nonetheless, it could be hypothesized that the long-term differences between the two groups were due to income rather than father involvement.

A third limitation is the lack of a comparison control group of father-involved or father-absent families who did not receive treatment. It is difficult to determine with certainty whether the changes compared with the baseline were caused by the treatment program or by placebo effects, or if the more favorable long-term outcome for father-involved families was because fathers were trained or simply because they were present in the home. However, longitudinal research with young conduct-disordered children has shown that without treatment these children continue to develop more deviant behaviors and negative family interactions over time (Patterson, 1980). In this study 1-year follow-up showed father-involved families to have children who were less deviant and non-compliant and mother interactions which were less negative than father-absent families. Thus father involvement would appear to be an important predictor of treatment maintenance.

SUMMARY

The purpose of this study was to undertake a comprehensive evaluation of the effects of father involvement in parent training for children with conduct disorders. Thirty families who received a 9-week parent training program were divided into two groups, father-involved families ($n = 18$) and father-absent families ($n = 12$). Preintervention, postintervention and 1-year follow-up assessments were made by mother and father attitudinal questionnaires and observations of mother-child interactions in the home. Immediately post-treatment both mothers and fathers reported significant improvements in their children's behaviors, which were maintained 1 year later. There were also significant reductions in mother negative and critical behaviors, increases in praises and reductions in child non-compliance and deviancy. Immediately post-treatment there was no difference in mother perceptions and mother-child interactional changes between those dyads who came from father-involved families and those who came from father-absent families. At the 1-year follow-up the mothers' behavior changes were maintained and the children continued to show significant reductions in noncompliance and deviancy. However, there was a significant difference between father-involved families and father-absent families in terms of treatment maintenance 1 year later. Analyses showed that significantly more of the families who responded favorably to treatment in terms of mother and child behavioral improvements came from father-involved families. The implications of these findings are discussed.

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