

Brief Psychoeducational Parenting Program: An Evaluation and 1-Year Follow-up

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ABSTRACT

Objective: Despite recognition of the need for parenting interventions to prevent childhood behavioral problems, few community programs have been evaluated. This report describes the randomized controlled evaluation of a four-session psychoeducational group for parents of preschoolers with behavior problems, delivered in community agencies. **Method:** In 1998, 222 primary caregivers, recruited through community ads, filled out questionnaires on parenting practices and child behavior. Parents were randomly assigned to immediate intervention or a wait-list control. The intervention comprised three weekly group sessions and a 1-month booster, the focus being to support effective discipline (using the video *1-2-3 Magic*) and to reduce parent-child conflict. **Results:** Using an intent-to-treat analysis, repeated-measures analyses of variance indicated that the parents who received the intervention reported significantly greater improvement in parenting practices and a significantly greater reduction in child problem behavior than the control group. The gains in positive parenting behaviors were maintained at 1-year follow-up in a subset of the experimental group. **Conclusions:** This brief intervention program may be a useful first intervention for parents of young children with behavior problems, as it seems both acceptable and reasonably effective. *J. Am. Acad. Child Adolesc. Psychiatry*, 2003, 42(10):1171-1178. **Key Words:** parenting, group, psychoeducation, brief.

Epidemiological surveys of children and adolescents have demonstrated that emotional and behavioral problems in youth are common and range from 10% to

20% of those surveyed (Bird et al., 1988; Offord et al., 1989a,b; Rutter et al., 1975; Valla et al., 1994; Velez et al., 1989; Williams et al., 1990). Epidemiological surveys of primary care populations (Costello et al., 1988; Garralda and Bailey, 1986) have found similar rates. Although the prevalence of disorders in the preschool population has been less well studied, surveys suggest that the rates of disorder are roughly equivalent to those found in older children (Crowther et al., 1981; Lavigne et al., 1996; Richman et al., 1975) and that for some forms of problem behavior, such as aggression, there is considerable stability through adolescence and into adulthood (Campbell et al., 1991; Kingston and Prior, 1995; Rutter, 1995).

A common factor in the etiology of most childhood disorders is difficulty in the parent-child relationship (Kendziora and O'Leary, 1993; Mrazek et al., 1995; Patterson et al., 1989; Rutter, 1991; Shaw et al., 1993). Cummings and Davies (1994) highlighted emotional negativity in parenting and problems in child management as two factors that contribute to behavioral and emotional problems in children. Emotional negativity in parents may result from marital conflict, parental depression, or conflict with a child whose behavior they

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perceive as difficult. Problems in child management occur frequently in children perceived as temperamentally difficult but may also reflect issues such as marital conflict or parental depression (Caplan et al., 1989; Cummings and Davies, 1994; Patterson et al., 1992; Shaw et al., 1993).

However they arise, parenting difficulties produce combinations of oppositional and avoidant behaviors in children. These behaviors in turn increase parental negativity and, if prolonged, result in a strained parent-child relationship. This may create yet further angry, oppositional, or avoidant child behavior and parental frustration. Recognizing the importance of breaking this negative cycle, Kendziora and O'Leary (1993) argued that our primary focus in children's mental health should be on improving dysfunctional parenting, as there is good evidence of the pervasive negative impact that it has on child outcomes. They cited studies showing reductions of marital discord as well as effects on child outcomes after parents improved their parenting skills. Examining data from the Canadian National Longitudinal Study of Children and Youth, Landy and Tam (1996) reported a buffering effect of positive parenting practices on child outcomes, even in at-risk families.

Following the work of Patterson et al. (1992), parenting interventions have focused on supporting parents to use strategies to enhance child compliance and reduce negative parent-child interactions. A variety of behaviorally oriented individual and group-based programs have been developed (Cunningham et al., 1995; Webster-Stratton et al., 1989). Gains attributable to parent behavioral treatment programs are changes in child compliance and in parent attitudes and skills as well as anger management and self-control in both parents and children. Programs that focus on changing parenting behavior have a stronger effect on child behavior outcomes than do programs that focus on changing parents' attitudes (Gottlieb et al., 1995; Sanders, 1996). There is no difference in outcomes between group and individual parent training programs (Gottlieb et al., 1995). Webster-Stratton et al. (1989) demonstrated maintenance of gains over 1 year for three different approaches: an individually self-administered videotape modeling treatment, a group discussion videotape modeling treatment, and a group discussion treatment. The parents preferred group and videotape modeling approaches. Group-based programs appear to be both acceptable and cost-effective (Cunningham et al., 1995; Webster-Stratton et al.,

1989). There have been relatively few interventions aimed at parents of preschool children despite the growing consensus that prevention and early intervention of problems should be more efficient and cost-effective than treatment of established behavioral difficulties (Schorr, 1988; Webster-Stratton et al., 1989).

With non-disadvantaged populations, parent education programs have been one of the main preventive interventions, which suggests these may be more amenable to larger, population-based approaches (Kendziora and O'Leary, 1993). Most evidence-based programs require participation over 8 to 12 sessions. Pediatric and family practice input (S. Tallett, W. Watson, personal communication, 1997) suggests that a briefer intervention would be more acceptable to parents of young children, as the parents may question whether behavioral problems are merely a phase that the child may outgrow (Pavuluri et al., 1996; Stallard, 1993).

This study evaluated a brief psychoeducational group-based program delivered in community agencies and targeted at parents of 3- and 4-year-olds whose parents believed they were having trouble managing their children's behavior. The program was developed and piloted in a university hospital setting where facilitators were trained. It uses a commercial video, *1-2-3 Magic* (Phelan, 1990). It aims at providing simple, clear strategies, such as timeout and rewards, to reduce the coercive and conflicted patterns of interaction between parent and child. It stresses the importance of eliminating parental nagging, yelling, hitting, and critical or hostile comments. It provides examples of positive and negative parenting behaviors and practical suggestions for overcoming different forms of child resistance. The video has not been formally evaluated.

METHOD

Subjects

In 1998 parents who were experiencing problems managing the behavior of their 3- or 4-year-old child were recruited through advertisements placed in community locations available to parents of young children in metropolitan Toronto. Two hundred twenty-two families attended orientation sessions.

Procedure

At the orientation sessions the purpose of the study was explained and randomization to immediate intervention or wait-list control was described, and the main caregiver filled out questionnaires about his or her child's behavior, parenting behavior, current level

of stress, and child's temperament. The caregivers at all sites were then randomly assigned in blocks of 6 and 10 to either the immediate intervention or a wait-list control condition. The experimental group began the program within 1 week of the orientation session, while the wait-list control received the intervention 3 months after orientation. The questionnaires were repeated 3 months after the orientation for both groups, 1 month after the intervention finished for the experimental group, and just before beginning the intervention for the wait-list controls. Due to budget restraints we were able to follow only the first cohort (those seen in the spring) for a year. The initial 70 families who participated in the intervention (both experimental and control) were sent follow-up questionnaires after 1 year to assess whether the gains were maintained.

The group intervention consisted of a 2-hour group meeting once a week for 3 weeks, followed by a booster session 4 weeks after the third session. There were approximately seven or eight parents in each group. The groups, delivered in collaborating community agencies at times convenient to parents, were led by trained community staff facilitators. Training consisted of watching one set of groups and participating in a discussion of techniques following the group sessions. A brief manual is available from the first author. The video *1-2-3 Magic* was used in the first three sessions to provide the parents with a simple, practical way to manage difficult child behaviors. Handouts were provided to cover specific problem areas. The facilitators were trained to encourage the group to explore strategies and support one another in problem solving about behavioral difficulties as opposed to providing answers for the parents.

Measures

The Parenting Scale (PS) (Arnold et al., 1993) is a 30-item questionnaire that asks parents to characterize how they handle their children's misbehavior by describing their own behavior on 30 behavioral dimensions, from calm to yelling. Preliminary factor analyses have yielded three factors: Overreactivity, Laxness, and Verbosity. The Overreactivity factor taps behaviors such as displays of anger, meanness, and irritability. The Laxness factor describes ways in which parents give in, fail to enforce rules, or positively reinforce negative behavior. The Verbosity factor describes parent behaviors such as arguing and ineffective talking. In the original validation study, scores on these factors significantly discriminated clinic-referred from nonclinic parents and predicted child behavior at home. The mean Total score on the PS was 3.1 (SD 0.7) for the clinical standardization group and 2.6 (SD 0.6) for the nonclinical group. Internal consistency is reasonable, with α coefficients of .83 for Laxness, .82 for Overreactivity, .63 for Verbosity, and .84 Total. Two-week test-retest reliability correlations were 0.83, 0.82, 0.79, and 0.84 for Laxness, Overreactivity, Verbosity, and Total scores, respectively. The PS was used in this study as the main outcome measure of parenting behavior change.

The Preschool Behavior Questionnaire (PBQ) (Behar and Stringfield, 1974) is a modified version of Rutter's (1967) Children's Behavior Questionnaire. Although developed as a screening instrument for teachers, it is used in this study, as it has been in others (Bradley et al., 1988), as a parent report instrument. This 30-item measure provides a Total score of problematic child behavior (range 0–60), as well as three subscales: Hostile/Aggressive, Anxious, and Hyperactive/Distractible. When scored by teachers in the original validation study, the Total scale score differentiated the disturbed from the normal population ($p = .001$). Means were 8.007 (SD 7.72) for the normal population and 21.324 (SD 6.80) for the deviant group. Interrater and test-retest reliabilities for the Total score are excellent ($r = 0.84$ and 0.87 , respectively) (Behar and Stringfield, 1974). This questionnaire was chosen because of its

brevity and clarity of wording and was used in this study as the main outcome measure of child behavior change.

The Preschool Characteristics Questionnaire (PCQ) (Finegan et al., 1989) is a 32-item measure, modified from the Child Characteristics Questionnaire (Lee and Bates, 1985), that taps dimensions of child temperament such as difficultness and unstopability. The trait "difficult" was moderately stable in the original Child Characteristics Questionnaire when children were followed from infancy to age 2 (Lee and Bates, 1985). Test-retest reliability for this trait was 0.70. With the preschool modification the authors showed moderate consistency of the "difficult" trait from infancy to age 4 ($r = 0.43$). This measure was included to ascertain whether parents who rated their children as having "difficult" temperaments would show less benefit from the intervention.

The Brief Symptom Inventory (BSI) (Derogatis, 1993) is a 53-item adult self-report instrument that taps symptom severity and stress and has been shown to distinguish psychiatric from nonpsychiatric subjects. It can provide a total score or subscale scores tapping areas such as depression and hostility. Each item of the BSI is rated on a 5-point scale of distress, ranging from "not at all" (0) to "extremely" (4). Two-week test-retest reliability coefficients range from a low of 0.68 for somatization to a high of 0.91 for phobic anxiety. It shows very high convergence for like symptom dimensions of the SCL-90, from which it was derived, but also for similar scales on the MMPI.

The questionnaires were filled out on the orientation night (pretest) and after 3 months (posttest) in both the experimental and control groups. One parent (target) was asked to fill out questionnaires and was expected to attend the intervention, although both parents were invited to attend.

Data Analysis

Repeated-measures analyses of variance (RMANOVA) were used to compare the two groups at orientation (pretest) and after 3 months (postintervention in the experimental group and before intervention in the wait-list group). Correlational analyses were undertaken on several main variables in the PS and child behavior measures. Follow-up data were analyzed (by RMANOVA) over three points (pretest, posttest, and 1-year follow-up) to determine whether gains achieved in the program were maintained.

RESULTS

Subjects who attended one to four sessions were considered to have received the intervention. Twenty-four subjects who came to the orientation were excluded from the analyses as they did not attend the intervention. This created a baseline sample of 198 participants (89 experimental and 109 control). The posttest sample consisted of 174 participants (81 experimental and 93 control). Follow-up questionnaires were returned by 25 participants of the original intervention/experimental group.

Demographics

This was a largely middle-class, educated group of parents. There were no differences between experimen-

tal and control groups with respect to age of parents, age of child, gender of child, or intactness of family (Table 1). There were no differences between the experimental and control groups with respect to level of education. More than 80% had completed some form of postsecondary education. There were significantly more boys ($n = 121$) than girls ($n = 77$) in this sample ($t_{197} = 46.39$; $p = .000$). There were significantly more female target ($n = 184$) than male target parents ($n = 14$) ($t_{197} = 58.627$; $p = .000$). The groups did not differ at baseline on any of the measures and so could be considered to be equivalent.

Those parents who dropped out after orientation differed from the rest of the sample only in having more two-parent families ($\chi^2 = 6.068$; $p = .014$).

Outcome Measures

RMANOVA was used to compare the experimental and control groups pretest to posttest. Table 2 outlines the F and p values for those variables found to be significant as well as means, standard deviations, and effect sizes. In summary, the PS Total results as well as all subscale results (Overreactivity, Laxness, and Verbosity) were significant at less than .001. The results of the analyses on three subscales of the PCQ (Persistent/Unstoppable, Negative Adaptation and Affect, and Difficult) were also significant. For the PBQ, both the Total and Hyperactive/Distractible scale results were significant. In the analysis of the BSI, the Hostility scale was significant at less than .001.

Correlational Analyses

Examining difference scores (pretest to posttest) for the experimental group, change in PS Overreactivity

correlated with PCQ Persistent/Unstoppable change ($p = .004$), PCQ Negative Adaptation and Affect change ($p = .050$), and BSI Hostility change ($p = .005$). Change in PBQ Total scores correlated with PCQ Persistent/Unstoppable ($p = .000$), PCQ Negative Adaptation and Affect ($p = .003$), and PCQ Difficult ($p = .000$). There were no correlations between the PS change scores and PBQ change scores. Examining the whole group, there was no correlation between change scores on the PS and any baseline score on PCQ subscales. There were no correlations between baseline subscale scores on the BSI and PS total change score.

Clinically Significant Change

Using a cutoff of 3.1 (the mean of the clinical sample in the initial validation of the PS) as indicating clinical problems on the PS Total, the intervention and wait-list control groups were divided into percents above and below this cutoff before and after the intervention. In the intervention group, 61% were above the cutoff before intervention and 26% after the intervention. This contrasts with the wait-list control group, in which 63% were above at baseline and 56% were still above at 3 months; that is, the intervention reduced the number of families in the clinical range by 35% compared to a 7% reduction in the wait-list control group.

Follow-up

Follow-up data were obtained 1 year after program completion on 25 families who completed the follow-up questionnaires (25/33) from the first group of experimental families (response rate 75.8%). It was decided to analyze only the follow-up data from the

TABLE 1
Demographic Frequencies, Means, and Standard Deviations

Variable	Experimental		Control	
	Frequency (Total $N = 89$)	%	Frequency (Total $N = 109$)	%
Male target child	52	58.4	69	63.3
Female target child	37	41.6	40	36.7
Only child	35	39.3	42	38.5
Single parents	18	20.2	23	21.1
Target parent homemaker	43	48.3	53	48.6
	Mean	SD	Mean	SD
Age of target parent	35.20	5.51	35.88	5.73
Age of spouse	37.76	6.52	37.57	5.48
Age of child	3.76	0.66	3.84	0.57

TABLE 2
Means, Standard Deviations, *F* and *p* Values at Baseline and After 3 Months

Variable	Experimental			Control			<i>F</i>	<i>p</i>
	Pre	Post	ES	Pre	Post	ES		
Parenting Scale								
Total								
Mean	3.337	2.735	0.89	3.282	3.162	0.21	33.12	.000
SD	0.676	0.694		0.577	0.608			
Overreactivity								
Mean	3.117	2.606	0.57	3.101	3.103	0	23.14	.000
SD	0.894	0.831		0.810	0.854			
Laxness								
Mean	3.122	2.595	0.51	3.003	2.889	0.13	10.79	.001
SD	1.041	0.794		0.888	0.803			
Verbosity								
Mean	4.053	3.070	1.1	3.983	3.712	0.33	32.38	.000
SD	0.846	0.956		0.830	0.785			
Preschool Characteristics								
Persistent/Unstoppable								
Mean	4.877	4.430	0.47	4.674	4.503	0.21	6.425	.012
SD	0.936	0.930		0.816	0.904			
Neg. Adaptation & Affect								
Mean	2.936	2.771	0.18	2.741	2.777	0	4.429	.037
SD	0.926	0.797		0.662	0.728			
Difficult								
Mean	4.088	3.461	0.65	3.947	3.728	0.26	12.67	.000
SD	0.967	0.991		0.823	0.782			
Preschool Behavior								
Total								
Mean	19.43	15.76	0.4	18.27	16.70	0.2	4.710	.031
SD	9.21	9.12		7.68	6.87			
Hyper/Distractible								
Mean	3.57	2.63	0.41	3.00	2.97	0.01	10.49	.001
SD	2.30	2.02		2.08	1.90			
Brief Symptom								
Hostility								
Mean	0.793	0.510	0.44	0.666	0.585	0.14	11.05	.001
SD	0.651	0.576		0.566	0.542			

Note: ES = effect size.

experimental families as there were three data points (two postintervention) available. Their baseline scores on the PS (Total, Overreactivity, and Verbosity) were significantly higher than for the rest of the experimental group, and so they represent a more extreme group. RMANOVAs were conducted on these data over three points in time (pretest, posttest, and follow-up). The PS Total ($F_{1,21} = 34.711, p = .000$), PS Laxness ($F_{1,21} = 12.75, p = .002$), PS Overreactivity ($F_{1,21} = 34.277, p = .000$), PS Verbosity ($F_{1,21} = 25.838, p = .000$), and PCQ Persistent/Unstoppable ($F_{1,19} = 11.875, p = .003$) showed significant differences between pretest and posttest that were maintained to the 1-year mark. Similarly, significant gains were observed between pre-

test and posttest for the PBQ Total ($F_{1,20} = 11.11, p = .003$), PBQ Hostile/Aggressive ($F_{1,20} = 5.525, p = .029$), and PBQ Anxious ($F_{1,20} = 15.073, p = .001$). There was no significant difference between posttest and follow-up for these variables, indicating that gains were maintained to the 1-year mark. While the PCQ Difficult scores were significantly different between pretest and posttest ($F_{1,19} = 36.148, p = .000, M_{\text{pre}} = 3.8489, M_{\text{post}} = 3.0455$), these gains were not maintained, indicated by a significant difference between posttest and follow-up ($F_{1,19} = 32.033, p = .000, M_{\text{follow-up}} = 3.7246$).

In contrast to the rest of the experimental group, the follow-up group did not show a significant change on

PBQ Hyperactive/Distractible or BSI Hostility from pretest to posttest. Although not significant, there were declines in both these scores (pretest to posttest) that were maintained at the follow-up.

DISCUSSION

Summarizing the main findings, the intervention group in comparison to the wait-list control group reported significant changes on the PS Total and the Laxness, Overreactivity, and Verbosity subscales. The parents reported more positive parenting behavior. Also, intervention parents reported significant change in child behavior on the PBQ Total and Hyperactive/Distractible subscale but not the Hostile/Aggressive or Anxious subscales. They reported their children to be less problematic overall and less hyperactive but not less angry or anxious. Furthermore, the intervention parents reported significant change on the PCQ Persistent/Unstoppable, Negative Adaptation and Affect, and Difficult subscales but not the Irregular subscale. They perceived their children as more compliant, happier, and less difficult. The parents did not report significant change on the BSI Total scales but did report a change on the Hostility subscales. All changes were in the expected direction.

Changes in parenting behavior as measured by PS subscale Overreactivity correlated with changes reported by parents in child behavior on PCQ Persistent/Unstoppable and Negative Adaptation and Affect subscales.

The differences seen in this study were clinically significant, although generally of a modest effect size, and probably represent the fact that this was a non-clinical sample. Changes in parenting behavior appeared to be sustained over a 1-year follow-up, although these follow-up results may not be representative of the sample as a whole. The follow-up group differed from the rest of the experimental group at baseline by having significantly higher scores on PS Total, Overreactivity, and Verbosity. Furthermore, they had more parents working outside the home. In contrast to the rest of the experimental group, the PBQ Hyperactive/Distractible change from pretest to posttest was not significant, likely due to the small sample size. The same applies for the nonsignificant change in the BSI Hostility. It does suggest, however, that the results on follow-up need to be regarded with caution as they may not be representative of the group as a whole.

This study provides support for the efficacy of a brief behaviorally oriented parenting intervention in parents of young children with behavioral problems. Although recruited through community advertising, these children were well above the clinical levels in Behar and Stringfield's original standardization of the PBQ. This standardization was, however, carried out on a sample of children rated by teachers. The parents in this study did express frustration and helplessness in managing their children's difficult behaviors. They appeared to be actively seeking help with parenting rather than just information. This is confirmed by the fact that the mean preintervention scores on the PS were in the clinical range and the PBQ Total scores were close to the mean of the deviant sample in the original validation study. The changes in the PS Total, Overreactivity, Laxness, and Verbosity could be seen as directly related to the messages in the videotape program, suggesting that parents heard the essential message about finding ways to manage difficult child behavior other than yelling or hitting. The fact that the parents also rated their children's behaviors as less problematic after the intervention suggests that the changes were not simply the result of the parents having learned what they should be doing differently and therefore reported on their own behaviors more positively. Parent report of changes in child behavior could be explained in several ways. It is possible that the children actually diminished their difficult behaviors in response to the parents' more effective management and reduction of yelling. It is also possible that the parents felt empowered by the group and were able to view their children's behavior more normatively and with less frustration. The video provides little information about normal child development except to point out that it is normal for children to try to get what they want. While it is possible that the parents' report of improvements in child behavior is a "halo" effect of the parents feeling better, the lack of significant change on the BSI, except for Hostility, does not support this view. Lastly, as this was largely a well-educated group of parents, and their children were young, it is possible that they were able to benefit from this brief intervention to a greater extent than would a less well-educated group or a group with older children.

The fact that the parents reported change on the PCQ, a measure of child temperament, suggests that this measure does not measure just temperament but also "state" behaviors that are open to change. Interestingly, PCQ Difficult was moderately stable in the

original reliability study of the PCQ. The lack of correlation between the PCQ Difficult subscale and the change scores on the parenting measure may be interpreted in a number of ways. It may be that in this sample of middle-class families, this “temperamental” characteristic is not a particularly strong predictor of parenting problems or that such parents accept child “difficultness.” Furthermore, parents may have begun to perceive their children differently as a result of discussion with other parents, and so changes in “difficultness” may reflect changed perception rather than changes in parenting behavior. However, correlations between change in parent behavior as measured by the PS subscale Overreactivity and change in the PCQ Persistent/Unstoppable and Negative Adaptation and Affect subscales do suggest that certain child behaviors may be more responsive to change in parenting behavior, at least as reported by the parents. One could surmise that change in these measures reflects less resistance and more willingness on the part of children who perceive their parents as less frustrated.

The lack of correlation with BSI measures and outcome measures may arise partly due to the shortness of the program or the fact that these items may not be strong predictors of parenting problems in this population.

Although this was a brief, largely educational program, it demonstrates a reasonable level of efficacy. Brief interventions have been shown to be efficacious, and this may depend on their providing help at a critical time (van den Boom, 1994). The fact that this video delivers a very clear message about reducing yelling and nagging while providing a simple strategy to allow the parents to regain a more comfortable level of control may be what accounts for its apparent efficacy. The fact that it was carried out in the community by community facilitators supports its potential effectiveness as a first level of intervention for parenting difficulties.

Limitations

The weakness in this study is that the results are entirely dependent on parent report. This is partially counterbalanced by the fact that the data collection was done independently of the facilitators running the groups and by the use of standardized measures. The study would have been considerably strengthened, however, by the use of some form of independent observation of parenting behaviors and by a measure of child behavior completed by an alternate caregiver.

Clinical Implications

This brief focused group for parents of young children, using videotape modeling, does appear to offer promise as a preventive intervention. The fact that it can be delivered by trained community facilitators in community settings reduces problems of accessibility. The low dropout rate also suggests that this type of intervention is acceptable to parents of young children. Replication of this study would be useful to validate these findings.

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