

## The influence of a parenting course on the quality of parent-child interaction

### Summary

*Two groups of 13 and 14 families respectively, each family with a child suffering from externalizing behavior problems, were compared on parental intrusiveness, quality of explanation, positive communication and negative communication, after the parents of the first group had attended a parenting course intended to improve parent-child interaction and problem solving. The children were 10 to 14 years old. The data was collected by means of observation. The results revealed no significant differences with respect to the parents' communication toward their children between the experimental parent group and the control group.*

The present article reports on a study that assesses the influence of a parenting course on the quality of parent-child interaction. The literature emphasizes the importance of interactions between parents and children. Child behavior problems are assumed to be related to dysfunctional interactions between family members. Dysfunctional interaction patterns are characterized by power struggle and mutual misunderstanding, criticism and attacks. Parents and child accuse each other of causing the problems, without realizing that it is an interactional problem and that most of the time it is difficult or even impossible to find out with whom the problem originated (Bodin, 1981; Lange, 1985; Watzlawick, Beavin & Jackson, 1967). This may lead either to endless and escalating conflicts or, conversely, to avoidance of conflicts. It is also assumed that families with a child with behavior problems differ from regular families in that the communication among family members on problems and feelings is in some way or other inhibited (Olson et al., 1983). Several review studies (e.g. Dadds, 1987; Doane, 1978; Jacob, 1975; Patterson, Reid & Dishion, 1992) have demonstrated that communication between parents and children with behavioral problems tends to be more generally negative than between parents and children in regular families. In spite of research findings (Patterson et al., 1992)

that suggest that most family exchanges are relatively neutral in regular families as well as in problem families, negative interaction exchanges occur at significantly higher rates in families with a child with behavioral problems.

Furthermore, in one of our studies (Van As & Janssens, 1996), we compared families with a child showing externalizing behavior problems with families with a child without these problems. The children in that study were 12 to 15 years old. The results of a self-report questionnaire revealed that interactions between parents and child were experienced as more disruptive and less open. Observations of parent-child interaction in various family assignments also showed that there were more negative and fewer positive interactions in problem families than in normal families.

Thus, communication between parents and children appears to be an important factor in the explanation and treatment of child behavior problems. For this reason we developed a parenting course that focuses explicitly on parent-child interactions (Van As & Janssens, 1995). The course, entitled 'Talking with children', consists of seven weekly two-hour sessions and aims at teaching parents rules and principles of communication which may help them improve their relationship with their child, encourage mutual understanding and help them negotiate disagreements and conflicts. The course consists of three elements: (1) information on child rearing issues in general and on communication skills in particular; (2) practical training in communication skills during the sessions; and (3) homework assignments. Parents are introduced to a four-step model for solving conflicts that arise between them and their children. The first step is discussing the problem. Everyone should be given the opportunity to express his or her views on the problem. Important communication principles at this stage are bringing up a subject without forcing the child onto the defensive, refraining from interrupting each other, (active) listening and paraphrasing. The second step is the generation of alternative solutions. Each family member must get a chance to mention solutions, and solutions should not be rejected or criticized at this moment. The third step in the problem solving process consists of deciding on the most acceptable solution and working out ways of implementing it. Advantages and disadvantages of each solution should be listed in order to select the solution that best meets everyone's needs and wishes. Finally, the fourth step is trying out and evaluating the solution selected. Has the problem really been solved? Is everyone satisfied with the solution? For each of the four steps the training material generates a great many practical and easily applicable tips and communication rules for the parents to use.

In the present study, we evaluated the effects of our parenting course on parent-child interaction. We assessed parent-child interaction in two groups of families with a behaviorally dysfunctional child, that is, one group of families with parents who attended the course and one control group. Our focus was on families with children with externalizing behavior problems, i.e. behavior characterized by failure to control emotions and impulses, often resulting in aggressive and disruptive behavior (Achenbach, 1966; Smets, 1985). We examined the frequency of positive and negative interactions in families in the experimental group (parents that had attended the parenting course) in comparison with the control group (parents that had not).

## Method

### *Participants*

The subjects in this study were 27 families with a child with externalizing behavior problems. Among the children were 18 boys and 9 girls, all aged between 10 and 14. The sample consisted of 16 two-parent families and 10 lone-parent families (single mothers). In order to select families with children with externalizing behavior problems, we published articles in local papers and asked parents whose child suffered from intrusive externalizing behavior problems to participate in our study and in the parenting course. To check the degree of the children's externalizing behavior problems, parents were asked to fill in the Dutch version of the Child Behavior Checklist (CBCL) developed by Achenbach and Edelbrock (1979).

### *Design*

In this study we used a pretest-posttest control group design. We compared two groups of 13 and 14 families respectively. Both groups were subjected to a pretest. The parents in the experimental group of 13 families then attended the parenting course; the parents in the 14 control families did not. After completion of the parenting course, approximately two months later, both the experimental group and the control group were subjected to a posttest.

### *Methods*

The interactions between parents and children were assessed on the basis of observation. Parents and child were observed during interaction assignments and during a meal.

The first interaction setting involved a decision-making assignment. Parents and child were instructed to plan a vacation together using a form with eight questions on destination, accommodation, means of transport, preferred activities, etc. For each question the parents and the child could choose from several alternatives. They were required, however, to reach agreement on each choice. Parents and child were allowed to discuss these issues for 10 minutes.

Second, a tangram puzzle was used. Tangram puzzles consist of seven pieces that can be put together to form many different shapes. The child was given a sheet with 32 example shapes and 10 minutes to reproduce as many of them as possible. The parents were allowed to assist the child by giving instructions, information and explanations, but they were not allowed to touch the pieces of the puzzle or to solve the puzzle themselves.

Third, the child received a series of eight puzzles, containing brainteasers and logical and numerical tasks. Again the child was required to solve the puzzles independently. Parents were allowed to give information, explanations or instructions without actually solving the puzzles themselves and without giving direct solutions. Parents and child were given five minutes for each puzzle. After this period they had to turn to the next puzzle, irrespective of whether the previous one was finished. Thus, the third interaction task lasted for 40 minutes at most.

Fourth, parents and child were observed during dinner. They were instructed to have

dinner as usual. Because the dinner observations varied in length, only the first 15 minutes of each mealtime were used for this study.

Fifth, parents and child were observed during a conflict resolution assignment. Parents and child were each asked to write down an issue they disagreed about. After that they were invited to elucidate their ideas about these issues and to try to agree on solutions. They were allowed to discuss these issues for 20 minutes. In the present study, however, the conflict resolution assignment was not used.

All interactions were recorded on video and then rated by two coders. The average scores given by the two raters were used for analysis. The ratings were made on seven-point Likert scales. Four dimensions of parental communication were coded:

1. intrusiveness;
2. quality of explanation and assistance;
3. positive communication; and
4. negative communication.

These dimensions were coded for the decision-making task, the tangram puzzle and each of the eight puzzles separately. For the interaction during dinner, only positive and negative communication were coded. Finally, each coder rated his general impression of a parent's intrusiveness, quality of explanation and positive and negative communication. Ratings were coded separately for fathers and mothers. Intrusiveness ratings were based on the parent's style of response to the child. High scores indicate that parents interrupt, make demands, give orders, command and rush the child without giving him or her room for exploration (Nolen-Hoeksema, Wolfson, Mumme & Guskin, 1995). Inter-rater reliability was determined by calculating Pearson correlations between the two coders' scores after they had observed 15 families (6 lone-parent families and 9 two-parent families). The Pearson correlation for intrusiveness was 0.77. Ratings for quality of assistance and explanation were based on clarity and appropriateness of the parents' information and suggestions. High scores on this scale indicate that parents give relevant information on what is meant or on how to approach the puzzle, ask questions that stimulate the child to come up with a solution and provide the child with possibly successful strategies and suggestions. They help the child solve the puzzles independently. Inter-rater reliability, assessed with the Pearson correlation between the two raters' codes, was 0.78. Ratings of positive communication focused on the parents' verbal expressions of enthusiasm, praise and reward for the child's ideas and attempts to solve the puzzles, supportive remarks and nonverbal expressions of warmth, like touching and hugging the child and smiling warmly. The Pearson correlation between the two coders' ratings was only 0.53, probably due to the low variance in scores on positive communication (the mean score on positive communication for all interaction assignments for fathers is 4.0 with a standard deviation of 0.42; the mean score on positive communication for mothers is 4.1 with a standard deviation of 0.43). However, the mean difference between the two coders' scores (for the 15 families used for determining inter-rater reliability) was only 0.55 on a seven-point scale. Thus, the low Pearson correlation coefficient does not indicate a lack of inter-rater agreement. Finally, ratings on negative communication were based on the parents' verbal expressions of negative affect,

criticism, put-downs, disapproval, sarcasm, threats, indifferent or evasive remarks and non-verbal aversive expressions, like frowning and angry looks. The Pearson correlation between the two coders' ratings of negative communication was 0.70.

## Results

To test whether parents who had attended the parenting course were less intrusive, gave qualitatively better explanations and communicated more positively and less negatively than parents who had not attended the course, analysis of variance (ANOVA) was used, with the scores on the pretest serving as co-variate. We examined whether there were differences in scores on the four ratings between experimental group and control group parents at the posttest, while controlling for the scores (and possible differences in scores) at the pretest. All analyses were done for fathers and mothers separately. First, we analyzed whether there were differences between experimental group and control group parents for each observation task separately. (Concerning the puzzle assignments, we computed mean scores on intrusiveness, quality of explanation and positive and negative communication over the eight puzzles.)

**Table 1.** Mothers' Mean Rating Scores at Posttest on Intrusiveness, Quality of Explanation, Positive Communication and Negative Communication in Experimental Families and in Control Families, for Each Interaction Task

	Mothers Experimental Group	Mothers Control Group	F	p
<i>Decision making task</i>				
Intrusiveness	2.4	2.2	.33	.57
Quality of explanation	3.9	3.4	.80	.38
Positive communication	4.5	4.5	.24	.63
Negative communication	1.5	1.2	1.82	.19
<i>Tangram puzzle</i>				
Intrusiveness	2.5	2.1	1.57	.22
Quality of explanation	3.5	3.4	.32	.58
Positive communication	4.3	4.4	1.16	.29
Negative communication	1.4	1.4	.05	.83
<i>Eight puzzles</i>				
Intrusiveness	1.9	1.6	3.00	.10
Quality of explanation	2.3	2.3	.64	.43
Positive communication	3.7	4.0	.90	.35
Negative communication	1.3	1.1	.25	.62
<i>Dinner</i>				
Positive communication	4.3	4.4	.38	.55
Negative communication	1.6	1.6	.32	.58

The results of this analysis are presented in Tables 1 and 2 for mothers and fathers respectively. The results show that we found no significant effects of the parenting course. Parents who had attended the course did not score differently from control group parents: they were not less intrusive, did not give better explanations and did not communicate less negatively or more positively than parents who had not attended the course. Parents' communication to their child did not improve after they had followed the parenting course, as compared with the communication of control group parents. This holds for fathers as well as for mothers. We only found some non-significant tendencies: mothers who had attended the course tended to communicate more intrusively during the cognitive puzzles than mothers in the control group, and fathers who had attended the course tended to communicate more negatively during the decision-making assignment (vacancy planning), and to communicate less intrusively during the tangram puzzle, than control group fathers.

**Table 2.** *Fathers' Mean Rating Scores at Posttest on Intrusiveness, Quality of Explanation, Positive Communication and Negative Communication in Experimental Families and in Control Families, for Each Interaction Task*

	Experimental Group	Control Group	F	p
<i>Decision making task</i>				
Intrusiveness	2.2	2.3	.02	.88
Quality of explanation	3.1	3.2	.02	.88
Positive communication	4.2	4.2	.02	.90
Negative communication	1.7	1.4	3.71	.08
<i>Tangram puzzle</i>				
Intrusiveness	2.5	2.8	3.81	.07
Quality of explanation	3.5	3.7	.14	.71
Positive communication	4.1	4.1	.07	.80
Negative communication	1.6	1.7	.00	.96
<i>Eight puzzles</i>				
Intrusiveness	2.0	2.0	.26	.62
Quality of explanation	2.5	2.7	.01	.92
Positive communication	3.9	3.8	.34	.57
Negative communication	1.2	1.4	1.08	.32
<i>Dinner</i>				
Positive communication	4.4	4.4	.69	.42
Negative communication	1.4	1.7	.92	.36

Second, we used mean scores. We computed mean scores on intrusiveness, quality of explanation, positive communication and negative communication over the eight cognitive puzzles first. We then computed mean scores on the four ratings over the decision-making assignment,

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the tangram assignment, the puzzle assignment and the meal. We then analyzed whether there were differences between the two groups of families in mean scores on intrusiveness, quality of explanation and positive and negative communication. The results of this analysis are presented in Tables 3 and 4 for mothers and fathers respectively. Again, we failed to find any significant differences between experimental group and control group parents in any of the mean scores on intrusiveness, quality of explanation, positive communication and negative communication. These findings hold for fathers as well as for mothers.

**Table 3.** *Mothers' Mean Rating Scores over the Four Interaction Tasks on Intrusiveness, Quality of Explanation, Positive Communication and Negative Communication in Experimental Families and in Control Families at Posttest*

	<b>Mothers Experimental Group</b>	<b>Mothers Control Group</b>	<b>F</b>	<b>p</b>
Intrusiveness	2.3	1.9	2.10	.16
Quality of explanation	3.2	3.1	1.90	.18
Positive communication	4.2	4.3	.18	.67
Negative communication	1.4	1.3	.37	.55

**Table 4.** *Fathers' Mean Rating Scores over the Four Interaction Tasks on Intrusiveness, Quality of Explanation, Positive Communication and Negative Communication in Experimental Families and in Control Families at Posttest*

	<b>Fathers Experimental Group</b>	<b>Fathers Control Group</b>	<b>F</b>	<b>p</b>
Intrusiveness	2.2	2.4	.45	.51
Quality of explanation	3.0	3.2	.07	.80
Positive communication	4.2	4.1	.16	.70
Negative communication	1.5	1.5	.02	.89

Finally, we analyzed the general impression scores on intrusiveness, quality of explanation and positive and negative communication. The results are presented in Tables 5 and 6 for mothers and fathers respectively. Here, too, we failed to find differences between parents who had attended the parenting course and control group parents with respect to the degree of intrusiveness, quality of explanation and positive and negative communication. This holds both for fathers and for mothers.

**Table 5.** *Mothers' Mean General Impression Rating Scores on Intrusiveness, Quality of Explanation, Positive Communication and Negative Communication in Experimental Families and in Control Families at Posttest*

	<b>Mothers Experimental Group</b>	<b>Mothers Control Group</b>	<b>F</b>	<b>p</b>
Intrusiveness	2.3	1.9	.45	.51
Quality of explanation	3.1	3.2	.17	.69
Positive communication	4.1	4.4	.49	.49
Negative communication	1.5	1.3	.55	.47

**Table 6.** *Fathers' Mean General Impression Rating Scores on Intrusiveness, Quality of Explanation, Positive Communication and Negative Communication in Experimental Families and in Control Families at Posttest*

	<b>Fathers Experimental Group</b>	<b>Fathers Control Group</b>	<b>F</b>	<b>p</b>
Intrusiveness	2.5	2.3	.03	.86
Quality of explanation	3.4	3.6	.19	.67
Positive communication	4.3	4.2	.16	.69
Negative communication	1.5	1.6	.09	.77

## Discussion

The results are quite disappointing. We failed to detect any significant effect of the parenting course on any of the four dimensions of parental interactions. Experimental group parents had not improved their interaction with their child compared with parents in the control group. We only found some non-significant tendencies, indicating that mothers who had attended the course were more intrusive during the eight puzzles, and fathers tended to become less intrusive during the tangram puzzle, and to communicate more negatively during the decision-making assignment. However, these findings were not significant and may be chance effects. We cannot account for the fathers' tendency to be more negative and the mothers' tendency to be more intrusive in the decision-making and eight-puzzle assignments respectively. If the experimental group parents really tend to be more intrusive and to communicate more negatively, the question arises whether the course may actually have been counter-productive. However, mothers who had not attended the course have a mean score of 1.6 on intrusiveness, whereas



experimental group mothers have a mean score on intrusiveness of 1.9 on the cognitive puzzle assignment (on a seven-point scale). Although the experimental group mothers may have become slightly more intrusive, their mean score is still rather low. In addition, the mean score on negative communication for fathers in the experimental group is still very low: 1.7 (versus 1.3 for the control group fathers). If these tendencies have any meaning at all, they might indicate that these parents have become less permissive after attending the parenting course and that they intervene more quickly when children show undesirable behavior (for example by commanding or by criticizing the child's behavior). For this reason, it may be important to consider the children's behavior during the interaction assignments as well as the parents'. Perhaps the important question is not how negatively or intrusively parents behave, but whether their response to the child's behavior is adequate. A parent's corrective sanction (coded, for example, as negative communication) may be adequate if the child's preceding behavior was undesirable. Without taking the children's behavior into account, a parent's score on intrusiveness or negative communication may be hard to interpret.

How can the failure to demonstrate significant effects of the parenting course be explained? And what conclusions can we draw from these results? One conclusion might be that the parenting course itself is worthless; parents may enjoy attending the course, but they do not change their behavior and their communication with their child accordingly. However, if we prefer not to regard the parenting course as worthless, how can we account for the apparent absence of any significant effects? First, the course may have been too short. Perhaps parents need more than seven sessions to practice the new communication skills and to apply them at home. Second, there may have been too little time between the conclusion of the parenting course and the posttest. The posttest was conducted less than two or two or three weeks after the last session of the course. Perhaps the effects of the training course do not emerge until after a certain 'incubation period'. Third, the type of measurement we used in this study (ratings of four dimensions of parental communication) may have been too general and not detailed or specific enough. For example, parents were trained in active listening without interrupting the child. Suppose that a parent remembers this technique and decides at some point in a 15-minute observation not to interrupt the child, and to let him or her finish the sentence. This may be interpreted as a relevant effect of the parenting course (and as a sign that interactions are improving). However, it is plausible that coders do not notice such isolated incidents or, if they do, that these incidents will not significantly affect the score they give this parent. Perhaps a more detailed coding system is needed. Fourth, the types of observation assignments and situations we used in this study may not have been adequate. The emphasis in the parenting course is on problem solving, on negotiating and handling conflicts that arise between parents and children. Perhaps the puzzle assignments or the mealtime situation we used in this study were not sufficiently relevant to these skills. It is possible that parents only try out the newly acquired communication skills when they need them, in other words, when there is a genuine conflict between parents and child. Although the difficult puzzles may induce some stress, they do not really create a situation of conflict. Perhaps the effects of the parenting course had best be studied in authentic situations of conflict between parents and child. As stated above, parents and children were also observed during a conflict resolution

assignment. They were instructed to discuss problems or conflicts for 20 minutes and to try to reach a solution. This task may be more appropriate for studying the effects of the parenting course. In the present study, the conflict resolution assignment was not used because the coding for this task had not been finished yet. Moreover, in coding the conflict resolution assignment we do not use the ratings presented in this study, but a micro-coding system. Every utterance of parents and child is coded, which yields more detailed information about communication processes. In addition, by coding every utterance or remark of parents and child researchers can analyze interaction sequences and use sequential analysis to study patterns of interaction between parents and child. This method makes it possible to study mutual relationships between parents and children. The results of the micro-coding system for the conflict resolution assignment are forthcoming and seem promising.

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