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# A LOW-COST PARENT TRAINING PROGRAM FOR SINGLE PARENT FAMILIES

by

Joanne Benjamin Bauman

A Thesis Submitted to the Faculty of The Graduate College in partial fulfillment of the Degree of Master of Arts

Western Michigan University Kalamazoo, Michigan April 1975

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## ACKNOWLEDGEMENTS

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Joanne Benjamin Bauman

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## INTRODUCTION

In recent years, behavior modification has been increasingly discussed as an alternative to traditional forms of child therapy. Berkowitz and Graziano (1972) report in their review of the literature that the application of behavior modification "to children's behavior problems is impressive" but add that behavior modification research until about 1967 had dealt mostly with individual cases, each with clearly delineated single problem behaviors (p. 297). Behavioral programming of this type was extremely time-consuming and required more professional help than was available. In view of the increasing critical shortages in mental health manpower, group behavior modification approaches are now being considered as professionally more economical than the costly and previously used individual approaches.

Additionally, behavior therapists found many shortcomings with the previous in-office treatment procedures, most important of which was the failure of the treatment effects to generalize to the home. The therapists also noted that the treatment effects did not maintain themselves over long periods of time, and that parents needed help on more than one problem behavior.

Responding to these limitations, Patterson, Ray and Shaw (1968) have stated that since "behavior is believed to be maintained by the consequences following that behavior, that the most effective way to reduce the rate of deviant behaviors is by altering the reinforcing contingencies supplied by the main social agents who spend most of the time with the child (p. 9)." Others have supported these ideas,

Homme (1966), Peine (1971). Zeilberger, Sampsen and Sloane (1968), for example, focused on parental attention as the crucial reinforcer in bringing about the decrement of severe aggressive behaviors. Parents were specifically trained in applying differential reinforcement which consisted of ignoring maladaptive behavior, time-out and social rewards paired with food or toys. The problem behaviors were clearly changed by the parents' manipulation of the consequences of those behaviors.

Likewise, Veenstra (1971) taught a parent to use differential reinforcement in reducing sibling negative response rates. Lindsley (1970) carried the method of providing specific behavior change programs to parents into the group structure. He worked with 14 parents and used the group sessions to discuss the acceleration and deceleration of specific child behaviors. In this case, however, the various procedures prescribed to parents were for the management of their children's related behavior problems.

In all of the above cases, however, the therapists were primarily providing parents with strictly defined instruction aimed at alleviating specific problem behaviors and little attention to learning of general behavior principles. In addition, parents did not have responsibility for observing or recording data. LeBow (1973) discusses the usefulness of training parents in the method of behavior modification as an integral part of the therapeutic relationship. He suggests that parents be taught the basic steps in assessment of problem behaviors, defining, observing and recording and further that they be taught ways to change their own behaviors

to increase their effectiveness in modifying the child's behavior.

Along these lines, Wagner (1968) taught parents to observe the child and one another and provided instruction in listing undesirable behavior to be changed and in identifying possible reinforcers. Wagner also provided training sessions and written instructions which specified target behaviors, directions of change, and the method (reinforcement, extinction, etc.) to apply. After eight contacts with the parents, considerable improvement in child behavior was reported and treatment ended.

In general, however, training programs were still not designed to train parents to master general behavior modification procedures and therapists were finding that without more comprehensive training, parents were unable to develop and maintain new behavioral programs.

In response to these problems, Johnson and Brown (1969) began their training procedure by observing and analyzing the mother-child interactions in two separate cases. Subsequent parent training focused on changing maternal behavior in parent-child interaction by making it more appropriately contingent. The training involved introduction to learning principles and techniques using discussion groups, programmed reading materials and training mothers at the clinic in direct interaction with their child. The parents consequently mastered a body of general knowledge as well as specific techniques to use in dealing with present problems. Further sessions were held to insure maintenance of the changes in the

mothers' behavior until new, adaptive behaviors became evident in the child.

Walder, Cohen, Breiter, Warman, Orne-Johnson and Pavey (1972) described a 15 week training program for parents which attempted to teach skills in the analysis of behavior and application of operant principles to parent-child relationship problems. The program included:

- a contract with each family specifying details of their participation
- weekly group meetings of several families aimed at teaching basic general behavior theory and technology
- weekly individual family sessions held for specific applications to their own children and
- 4. before and after testing of parents, using video tapes, parental report of behavior and standard personality tests

Parents had the major responsibility for applying home programs which included identifying, observing and recording problem behaviors. Walder et al. applied a variety of detailed contingencies on the parents' behavior in order to maintain their involvement. These included a system of "debits" for incomplete work, which resulted in the loss of money parents had previously given him and which would normally be given back at the end of the sessions.

These researchers found "an improvement in both child behaviors and parental test scores after this program but not after a no-treatment waiting period nor after non-operant consultation or

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therapy (p. 613)." The Walder et al. (1972) study, however, was largely devoid of specific data. There were references to pre- and post-test measures, multiple observers and even a 2 year follow-up. The results, however, were reported in descriptive rather than quantitative fashion. Although the study was relatively extensive and complex, it was limited to subjects who were fairly well educated and of the middle-class. Very few programs have been aimed at working with "hard to handle populations" such as single parents, the poverty stricken or the illiterate. In the past, any programs for this population have been too extensive and time-consuming for large scale implementation.

The purpose of this study is to provide a group of singleparent mothers with consultation and aid in developing and carrying out programs aimed at specific problems in the home and with providing some of the technical skills necessary in order to facilitate independent application of behavior principles by the parents.

#### METHOD

#### Subjects

For the past two summers the Edison Neighborhood Center in Kalamazoo has held a 1 week camping experience for a group of single parent families living in the Edison School neighborhood. The purpose of this camp was to provide a social experience for the families as well as to help the parents become aware of the services and staff available through the Edison Neighborhood Center. The service most commonly requested by the single parent was for assistance in

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managing their children and for a training course that might be of benefit to them. The staff of the center also became acutely aware of these needs when given the opportunity to observe the mothers interacting with their children over a week's time.

This project served eight single parent mothers who live in the Edison neighborhood. These families represent approximately 30 children whoses mothers range in age from 26 to 44, with a mean age of 32 years. Seven of the eight families were receiving federal assistance under the Aid to Dependent Children program. All group members had expressed a desire to become a member of the training group.

This particular group posed some unique problems. One of the most crucial was the fact that these mothers did not get sufficient time away from their children as can two parent partners. Maintaining continued positive interaction thus may become less likely and more difficult. In addition, their limited economic resources prohibited their buying reinforcers, for example, money, toys, trips, vacations, clothing, that many middle class families could offer their children.

## Procedure

The parents indicated not only their need for child management skills but also indicated their desire to solve some of the problems they were presently having.

In order to devise a low-cost, short-term effective program, a parent training program was devised which included:

- a contract with each mother specifying some details of their participation
- eight weekly group meetings, each 2 hours in length.
   These meetings aimed to teach basic general behavior theory and technology
- 3. five individual family sessions held with the behavioral counselor in the home, for discussion of specific application of a program to one child's problem behavior
- daily data taken by the parents over a period of weeks on specific behavioral interventions
- 5. pre- and post-test quizzes on applied behavioral principles and verbal attitude scale indicating parental attitude toward their child

### The contract

The attendance behavior in groups such as these has traditionally been very poor. Peine (1971) attempted to deal with this common problem by using monitary payoffs for attendance. His contingency managed groups showed consistently higher rates of attendance, punctuality, turning in assignments and hand-raising. A system such as the "debit" system of Walder et al. or Peine's remuneration system was found to be economically unfeasible with this particular group, thus even low cost back-up reinforcers for parent attendance were unavailable.

In order to deal with this problem, an informal contract was drawn up which emphasized the intention to complete the course,

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intention to be a cooperative group member and an agreement to abide by a specific contract to be set up with the help of the behavioral counselor. The contract also listed some obligations of the Parent Trainer, making the contract binding to two parties. Two copies of the contract were signed by both parties. Parents received one copy and the Parent Trainer the other.

#### The parent training course

After the contract had been signed and the pre-tests administered, the parent training course began. The Parent Trainer utilized group meetings for the purpose of presenting the parents with some general principles and technologies of behavior modification. An outline of the complete Parent Training Course is given in Appendix A.

Each parent was provided with a copy of Patterson and Guillen (1968) Living with Children: New Methods for Parents and Teachers. There were weekly reading assignments and quizzes aimed at testing comprehension of reading material and one assignment on recording praise and critical comments.

The training course included eight 2 hour parent training sessions. Each session was divided, when possible, into three parts:

- 1. parent discussion of home programs
- learning and/or discussion of new behavior principles or applications of those principles
- group discussion and role playing the applicability of the principles

All training sessions took place at the Edison Community Center.

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#### Behavioral counselor home intervention programs

During the third session the behavioral counselors were introduced to the families they would be working with for the following 5 weeks. During this session the counselors helped the parent identify problem behaviors and define them clearly. This took the counselors and parents through step 5 of the Identification and Program Development section of the Behavioral Counselor Procedure (Appendix B). Each counselor was instructed to follow the procedures as listed in this section.

During the next week, the counselors helped the parent to design a program to decelerate or accelerate a behavior of their child. This process took them through step 13 of the Identification and Program Development section.

Each parent was asked to choose only one of their children as the subject for the Behavioral Intervention Program. This procedure was used to allow the parents to concentrate their attention on one child's behavior and required only one data taking session daily. The type of data recording parents used varied with the type of problem the child presented. Parents used simple frequency recording where possible, but also used time sampling.

The first 13 steps of the Identification and Program Development section are an adaptation of the procedures suggested by Holland (1970) in his "Interview Guide for Behavioral Counseling with Parents." As soon as a mutually agreed upon program was devised, a contract was signed by the counselor and the parents. The contract outlined the responsibilities for the intervention program and the

treatment plan. The procedures for monitoring the intervention program are described in steps 14 to 20 of the Behavioral Counselor Procedure.

Each counselor made one or two weekly home visits. Weekly contact time was approximately 2 hours per week per family. The counselor, together with the parent, designated a goal, a means of achieving that goal and an evaluation procedure to be used in monitoring the progress toward the goal.

As part of the Home Intervention Program parents were expected to take daily data on problem behaviors for which they had designed intervention procedures. Results of data taken were to be communicated to the counselors during daily or weekly telephone calls or during weekly home visits. Telephone contacts were also used to reinforce data recording and for problem discussion. Counselors were responsible for taking reliability data at least once during baseline and intervention conditions. The group leader took reliability data at least once during the program to assess behavioral counselor reliability.

Parents were encouraged to be honest when reporting data and every effort was made to avoid putting pressure on the parents to "produce good results."

The home data taken by the parents were used to indicate the effectiveness of the parent home intervention projects. These data were to serve as an indicator of the applied effectiveness of the behavioral counselor and parent work in modifying child behavior.

#### Pre- and post-tests

The actual training course was aimed at increasing the parents' knowledge and applicability of social learning principles. They were asked to take a pre- and post-test on applied behavior modification (Applied Achievement Test). These tests of applied principles (Appendix C) were in multiple choice form and consisted of a total of 20 questions. The questions were designed to test the individual's ability to use behavior modification principles when applied to certain situations as described in the questions. Although these tests are probably not a reliable indicator of actual skills in applying principles, it does test the written know-how of the parent in this area. A numerical score on the Applied Achievement Test (A.A.T.) was tallied for each parent.

Patterson, Cob and Ray (1970) have said that if a child's behavior is altered by a treatment program but the parent continues to label him as "bad" or "deviant," a kind of experimenter effect "will obtain and follow-up data will show the behavior returning to pretreatment levels. For the present we assume that changing the verbal labels used by the parent to describe the child is a necessary outcome for effectiveness in family intervention (p. 29)." They further note that "when behavior change does occur, the parent's ability to observe that change somewhat objectively should help to further maintain the treatment effects and reinforce the parent's changed perceptions of the child." Since the data taken in the home by the parents in this project should act as a means for observing behavior change "somewhat objectively," it would be interesting to record the parent's

verbal statements about the child before and after the training sessions and intervention programs. For this purpose, an attitude scale was used. This scale indicated the parent's attitudes (favorable and unfavorable) toward their child. The scale used is an adaptation from Itkin (1952). Each item on the test can be answered in one of five ways. Each answer can be given a numerical score of from 1 (negative attitude toward the child) through 5 (positive attitude toward the child). A high score on the test as a whole would indicate generally favorable attitudes, a low score, unfavorable. A correlation of this data with the change data received from the home intervention project would indicate if change in child behavior was accompanied by a change in attitude toward the child as indicated by the Verbal Attitude Scale (V.A.S.). This attitude scale (Appendix D) was given during the first and last parent training sessions.

The three important variables to be studied are:

- data on actual child behavior change as recorded daily by the parent
- scores on pre- and post-tests of applied behavioral principles
- parent verbal behavior of attitudes toward the child as measured by the attitude scale

### RESULTS

The results are presented in four sections. Results of the home intervention projects and follow-up are presented first. Preand post-test measures follow and section three gives quiz grade,

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attendance and punctuality data. A cost of training analysis appears in section four.

A total of nine parents entered the Parent Training Course. On week three, Subject Nine underwent surgery. Recuperation was expected to take a month, and after the surgery the subject asked to be withdrawn from the training sessions. The data do not include this subject as no post-test or process measures were administered.

## Home Intervention Projects

Each subject's home intervention project will be presented individually.

## Subject one

Subject One, age 28, chose to work with her six-year-old son, Mickey. The target behavior was defined as interruption behavior; any verbal statement by the child that is directed toward the mother between 6:00 and 6:15 p.m. each day. Fighting with siblings was also marked as an interruption as it might be necessary for the mother to stop her activity at this time and attend to the child. Data taking took place in the living room while the child watched television.

Mickey earned one point for each of three 5 minute periods during which he remained quiet, thus allowing three points each night for a 15 minute period in which no interruptions occurred. One point and verbal praise followed each 5 minute interval of quiet. The exchange schedule for these points was as follows:

one point entitled Mickey to a snack, two points the right to watch T.V. from 7:00 until 8:00 p.m. and three points entitled him to both of the above plus a bonus cookie at snack time.

Results of the home intervention project carried out by the mother in the home appear in Figure 1 (page 15). The behavioral counselor's reliability data appear on the graph as x marks. The data taken by the Parent Trainer is indicated by a triangle. Reliability for this subject was 97.67% during baseline and 100% during intervention.

For the period of the study, interruptions went from a mean of eight per 15 minutes during baseline to a mean of .20 during intervention.

# Subject two

Subject Two was concerned because she felt that her seven-yearold daughter Linda was not following her requests. During the first few days of baseline it became evident to the mother that three commands were consistently met with non-compliant responses. Excluding these three and when given a 5 minute period to begin doing as she was asked, compliance behavior was averaging 85%. The three behaviors were (1) getting dressed, (2) putting shoes on and (3) brushing hair. Since these behaviors should be performed by a seven-year-old girl without request, baseline and intervention data was taken on self-initiated performance of these tasks.

Figure 2 (page 16) graphically presents the data. Reliability during both phases was 100%. Observers in the home noted that no



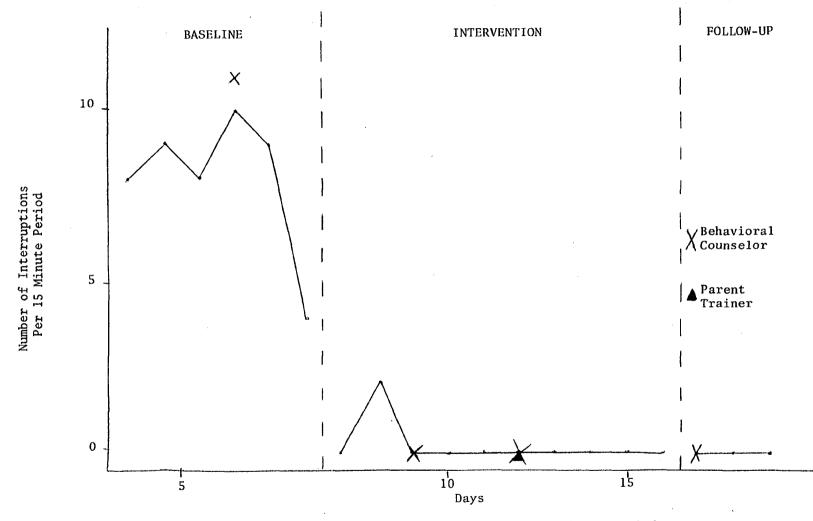
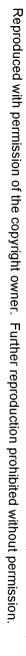


Figure 1. Number of interruptions per 15 minute period for a six-year old boy.



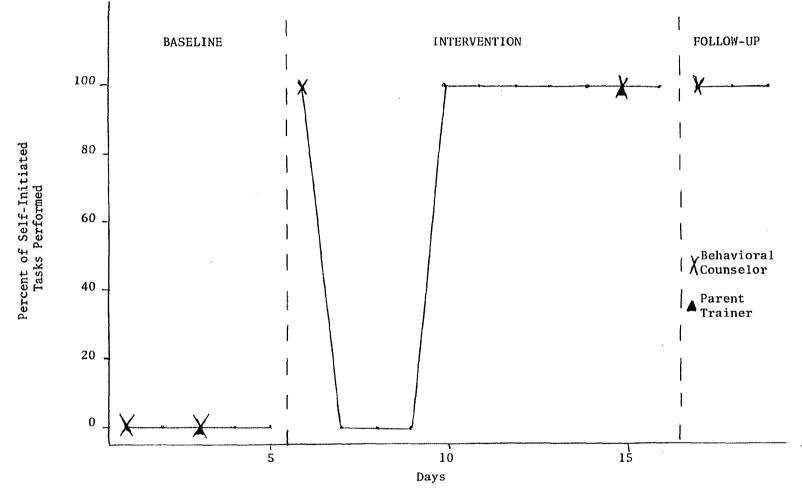


Figure 2. Percent of self-initiated dressing tasks performed daily by a seven-year-old girl.

requests were made for performance of these tasks at the times that reliability checks were being taken.

The mean baseline performance over the three tasks was 0%. During intervention Linda earned a star for each item on her chart, making it possible to obtain three stars each morning. A check was made at 8:00 a.m. each school morning and at 10:00 a.m. on weekends. Verbal and physical praise were given along with the stars which Linda could trade in for privileges such as: 7 points--help bake a treat; 15 points--visit a friend for the day, and 21 points--movie of her choice. The mean self-initiated performance for all of these three items during intervention was 72.73%. With only three exceptions self-initiated performance was 100% during intervention. No explanation for the three days of 0% self-initiation was given, but it should be noted that the days were Friday, Saturday and Sunday.

#### Subject three

Subject Three, age 35, has two children, ages 11 and 12. Both children are in a special school for the trainably mentally handicapped. The 12-year-old child was chosen for the purpose of this intervention because he is heavy-set and had been physically assaultive to his mother in the past.

The mother had a great deal of trouble reading, thus she did not do well on written tests, on reading assignments, nor did she benefit from the information in many of the handouts given in class. She showed some problems understanding directions given her and

her intervention program was designed almost entirely by the behavioral counselor although all responsibility for carrying out the program remained with her. Data for the home intervention project in this case is presented in Figure 3 (page 19).

Data was taken on "compliance behavior." Records were taken daily between the hours of 5:00 and 7:30 p.m. The mother was permitted to make up to ten commands during the specified time period. Commands were to be clearly stated and were to be complied with within 3 minutes. If the child began to respond to the request before the end of the 3 minute period, it was considered an occurrence of compliance behavior and was marked as a point on the chart. If the child complied but did not begin doing so until after 3 minutes, it was considered an occurrence of non-compliance and was marked as a 0 on the chart.

Points could be exchanged as soon as three were accumulated for small snacks, a chance to listen to a favorite record or earning the right to play with three model racing cars which had been withheld from him by his mother. A day in which seven out of ten commands were followed was rewarded with the child's favorite snack and a large gold star on his point chart. Mean compliance during baseline was 38.66% and during intervention was 91.70%. Reliability was 87.83% for the baseline phase and 95.00% during intervention.

## Subject four

Subject Four has one daughter, Kathy, age five. Kathy did not help around the house, leaving her clothes strewn about and not

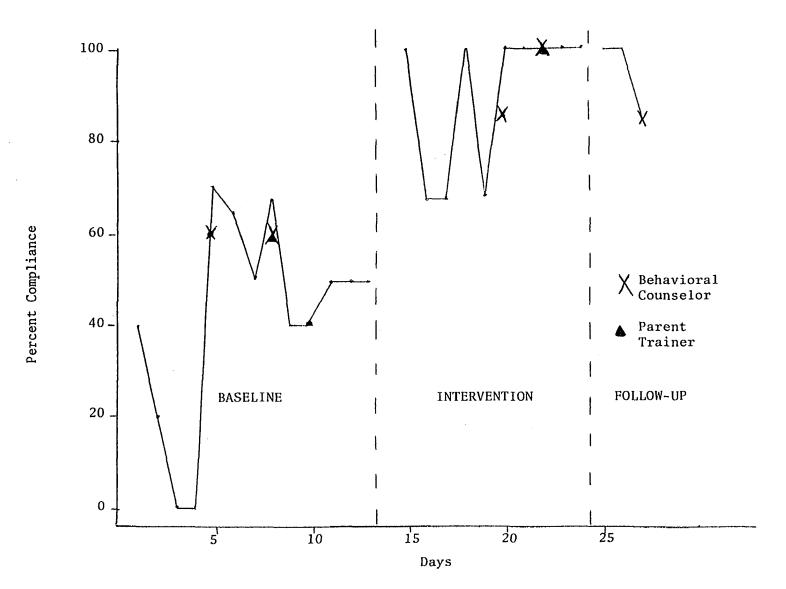


Figure 3. Percent compliance between 5:00 and 7:00 p.m. daily for a trainably retarded 12-year-old boy.

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picking up toys. Requests by the mother to pick up generally resulted in non-compliance and was often followed by nagging and arguments.

To begin modification of some of these problem behaviors the mother chose to work on having Kathy hang up her coat and put her shoes away in the closet when she came home from school. Three minutes were given for the performance of these tasks once Kathy entered the door. In addition to these behaviors, the mother was having difficulty getting Kathy to put on her own socks in the morning before school. A chart was designed which included: socks on, coat hung up and shoes put away. Figure 4 (page 21) presents data taken in the home. Reliability was 100% during both baseline and intervention.

Baseline data indicate that Kathy was performing these tasks when asked 43.25% of the time. One point was given for performance of each task, and when points became exchangeable for things such as T.V. time, snacks, shopping trips, or coloring, percentage of the tasks done upon request went to 93.20%. On one occasion, the mother asked Kathy to do some cleaning in her room and added the completion or non-completion of these items to that day's data.

Both the mother and the behavioral counselor report that by the fourth day of intervention, the mother did not have to ask Kathy to do any of the originally targeted behaviors.

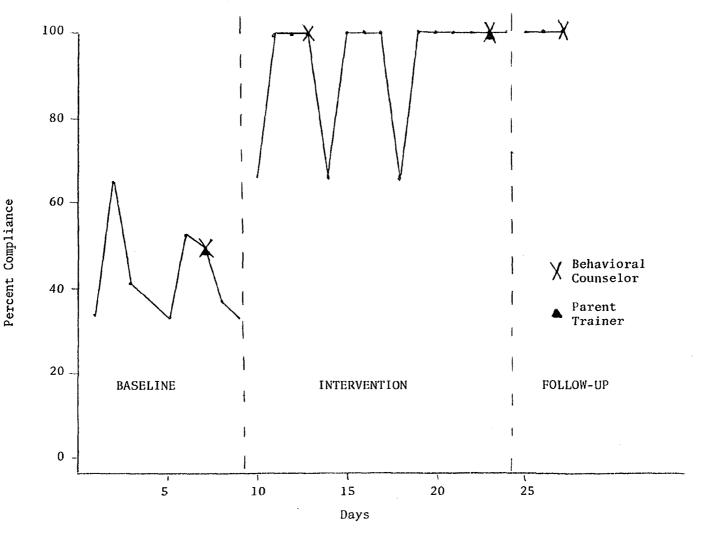


Figure 4. Percent compliance (maximum 10 commands) per day for a five-year-old girl.

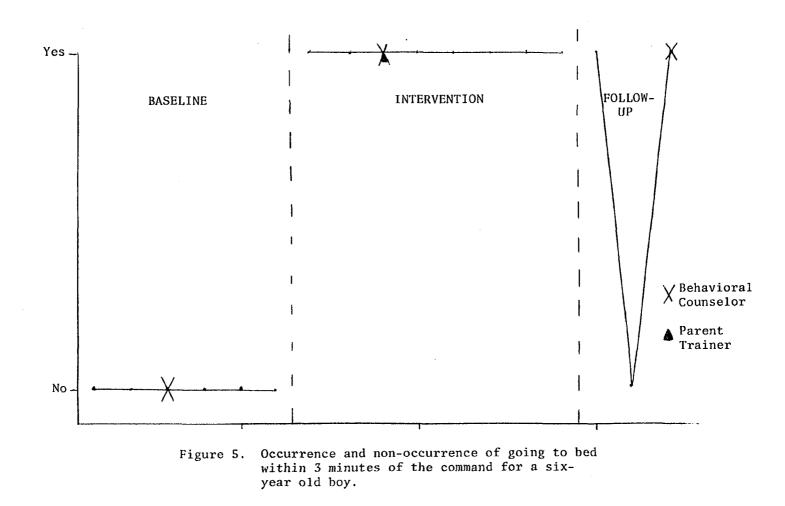
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#### Subject five

Subject five found that a frequent time for arguments in her house was bedtime. The mother found herself nagging, arguing and physically punishing her six-year-old son because he would not go to bed when asked to do so. This child had a slight hearing loss and was saying that he hadn't heard his mother's request to go to bed. In designing the program the mother decided that she would tell her son once, loudly enough so that she was sure she was heard but not so loudly that it was unpleasant, that it was time to go to bed. If he went to his room and began undressing or to the bathroom and began washing within 5 minutes of the request, he received a point on his point chart. Hugs and praise accompanied the point. If the child also went to bed without being told, a bonus point was earned. At no time during baseline or intervention was this bonus point obtained (perhaps an indication that the reinforcers used were not powerful enough). Data on the home intervention project for this subject appears in Figure 5 (page 23).

Baseline data indicated that the child never went to bed within 5 minutes of being told to do so. During intervention he went to bed within the 5 minute period 100% of the time.

Subject Five seemed reluctant throughout the study to allow the behavioral counselor in her home. Only one reliability check was taken during the entire intervention program. Informal questions about the procedures that she followed during bedtime period indicated that she would sometimes ask the child to go to bed a second time and that if he complied, he would still receive his point. This



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procedure is contrary to the one agreed upon in her contract with the behavioral counselor.

## Subject six

Subject Six came to America 10 years ago at the age of 22 and does not have a good knowledge of the English language. This woman complained that her 14-year-old daughter Gloria refused to help around the house. Gloria indicated that the mother was so lazy that the kitchen floor hadn't been cleaned in 2 months and that the mother was asking her to do dishes which had been piling up for 2 weeks. The home seemed very disorganized and it took a great deal of time to identify a behavior and to construct a change program.

The program drawn up had two parts and had as its target both mother and child behavior. A contract was agreed upon by mother and daughter. Mother would be responsible for washing both the breakfast and lunch dishes sometime before dinner each night. In turn, after dinner Gloria would wash and wipe the dinner dishes. Gloria earned two points for each night she did the dishes. She could spend one point each night to talk on the telephone for 30 minutes and the other point could be saved for use on the weekend. Five points earned her the right to stay out until 12:00 at night with her boyfriend on a Friday or Saturday night.

The behavioral counselor was basically responsible for providing the praise and reinforcement for the mother. The training group was also very helpful in providing powerful social reinforcers. Results

of the home intervention project for Subject Six are displayed in Figure 6 (page 26).

For all baseline days, neither mother nor Gloria did the dishes. The reliability check done on the fourth day of baseline revealed a kitchen piled high with dirty dishes, rotting food on counter tops and a kitchen floor caked with moldy food and food scraps. Once intervention began, Gloria did the dinner dishes 100% of the time and the mother did her share of the dishes 94.44% of the time.

On ensuing visits to the home, it was found that the kitchen floor had been washed and no food scraps were evident in the kitchen. Even though reliability visits produced an agreement of 100%, the behavioral counselor expressed some concern over the reliability of the data received during the intervention phase. The daughter hinted that mother had not been doing her job and that mother was not keeping track of points earned or spent, only of whether dishes were done or not done. It is possible that the mother's language problems were a barrier to her understanding of the course and of what was required of her in terms of the home project. It is also possible that her scores on the pre- and post-tests as well as her quiz scores were affected by language since reading English was difficult for her and the pre- and post-tests were quite long and possibly frustrating.

#### Subject seven

Subject Seven chose to work with her eight-year-old daughter to reduce the frequency of her thumb-sucking behavior. This parent

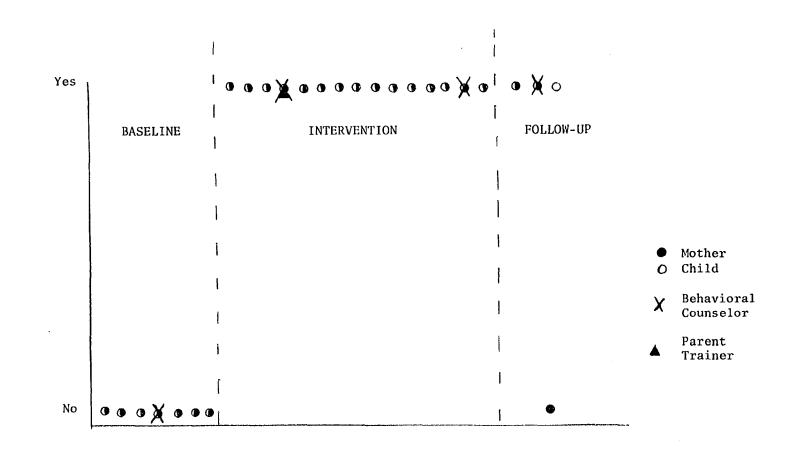


Figure 6. Occurrence and non-occurrence of dishwashing by a 14-year-old girl and her mother.

took 1 minute time samples just before the child's bed time. During this time her child was always watching T.V. and seemed to engage in thumb-sucking at a high rate. Data taken on thumb out of mouth behavior is presented in Figure 7 (page 28). Baseline data show that the child's thumb was out of her mouth 74.71% of the samples checked.

A program was set up whereby the child could earn four points daily: two points for the thumb out of mouth for the 15 minute period of data collection, one point for applying "Thumb," an antisucking application, to the nails, and one point for not sucking for the first 15 minutes after getting into bed. The mother made several outfits of doll clothing and priced each at 6 to 15 points. At no time did the daughter apply "Thumb" to her own nails and in only one-half of the days counted (baseline plus six) was she able to keep her thumb out of her mouth after she had gotten into bed. This data is not presented graphically since it would be incomplete.

The mother reported to the training group that she felt that her daughter was keeping her thumb out of her mouth more often during the day. It might have been helpful to have taken an additional baseline on thumbsucking while watching the T.V. in the afternoon and compare baseline and intervention levels. Because of the difficulty of this data taking procedure, however, this was not done.

After seven intervention sessions, the criterion for the two points was raised to 30 minutes with thumb out of mouth. Mean percent of "Thumb out of Mouth Behavior" during intervention was 95.83%. Reliability over all conditions was 100%.

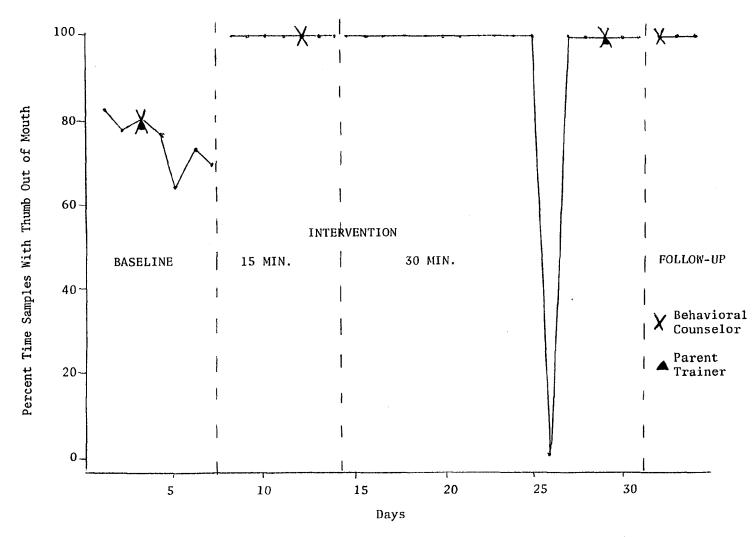


Figure 7. Percent time with thumb out of mouth during both 15 minute and then 30 minute time samples for an eight-year-old girl.

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The data taken by Subject Seven demonstrates competence at taking a more complex form of data. This type of recording is not advised for all parents and was difficult for this parent to carry out effectively. This parent decided not to use time-sampling for the last 5 days of the 30 minute sessions but sat with the daughter during T.V. time and noted each time she saw the child with her thumb in her mouth. No such instances were reported.

# Subject eight

Subject Eight found herself arguing with her children daily. During one group session, she expressed a desire to have "just a few minutes" to be away from her children and relax when she came home from work. She was finding that their constant interruptions caused her to become nervous, picky and argumentative. The oldest daughter, age 14, interrupted her most often. During baseline, she interrupted on the average of once every 2 minutes over a period of an hour.

A program was devised whereby the daughter was required to play quietly, read in her room, or watch television between 5:30 and 6:00 p.m. without talking to her mother. For all 1 hour periods in which there were no interruptions she could earn things such as a Coke, popcorn, malteds, playing cards with mother or could arrange a family singalong, music, drama or dancing time. The other children in the family could participate in the activity chosen by the daughter if they also had not interrupted their mother during that time. As is demonstrated by Figure 8 (page 31) once intervention began, interruptions immediately went to zero. The other children were also not interrupting their mother at this time and took part as a group in reinforcing activities. With the exception of two interruptions by the youngest child, interruptions were not occurring. Reliability was 100% over all conditions.

The effect of this program has been far-reaching. The mother reports that this 1 hour of quiet has given her time to relax and that the time she spent with her children, being involved in their "reinforcing activities," gave them an opportunity to interact in a positive rather than a negative fashion. In general, she reports enjoying her children more and her children seem to be interrupting less during other times (possibly recognizing the mother's need to have some quiet).

After the completion of this intervention project this subject's children got together and presented their mother with a new revised contract. The contract was rejected by the mother because it entailed the same amount of cooperation by the children at an increased cost to the parent. A new contract was devised in which additional reinforcers were added to the existing list.

## Follow-Up

Follow-up data was taken 1 month after completion of the parent training course. Each parent was asked to take 3 days of data. On one of these days the behavioral counselor or the group leader performed a reliability check. Results indicate that the behavior of

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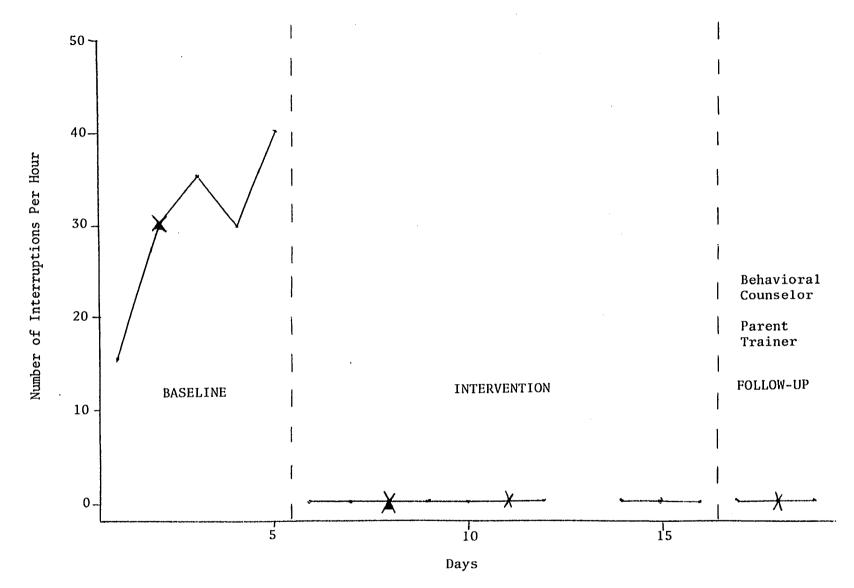


Figure 8. Number of interruptions per hour by a 14-year-old girl.

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five children (children of Subjects One, Two, Three, Four and Seven) continued to change in the desired direction. The behavior of two children (children of Subjects Five and Six) changed in an undesirable direction and one child's behavior (child of Subject Eight) remained at the same level.

Table I shows the baseline, intervention and follow-up means for the home intervention project. Six of the eight parents were still recording data on a daily basis and using the program they set up during the training course. Of these six parents, five had independently designed a behavior change program for another child in the family. The sixth parent had only one child.

#### Table I

Subject #	Baseline Mean %	Intervention Mean	Follow-Up Mean %
1	53.33	.20	.00
2	0.00	72.73	100.00
3	38.66	91.70	93.33
4	43.25	93.20	100.00
5	0.00	100.00	66.67
6	0.00	100.00	66.67
7	74.71	95.83	100.00
8	50.00	.00	.00

# Baseline, Home Intervention Project and Follow-Up Means

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#### Pre- and Post-Test Measures

The pre- and post-test scores for both the Applied Achievement Test (A.A.T.) and the Verbal Attitude Scale (V.A.S.) appear in Table II and III (page 34), respectively. It should be noted that all subjects improved their scores on the V.A.S. and that on the A.A.T. all subjects except one improved their scores.

# Table II

Subject #	Pre-Test Score	Post-Test Score
1	45	90
2	55	95
3	35	40
4	60	85
5	45	90
6	55	50
7	50	95
8	45	90

# Pre- and Post-Test Scores on the Applied Achievement Test

The t-tests on the differences between the pre- and post-test scores on the A.A.T. and the V.A.S. were significant ( $\underline{t} = -4.276$ , df = 7, p  $\lt$ .004 for the A.A.T. and  $\underline{t} = -5.321$ , df = 7, p  $\lt$ .001 for the V.A.S.). Significant differences were also found between the mean baseline and mean intervention scores of the home intervention projects ( $\underline{t} = -6.54$ , df = 7, p  $\lt$ .000).

#### Table III

Subject #	Pre-Test Score	Post-Test Score
1	41	56
2	60	77
3	56	66
4	65	79
5	66	72
6	51	53
7	61	75
8	42	66

#### Pre- and Post-Test Scores on the Verbal Attitude Scale

The correlation between the change score on the A.A.T. and the ability to modify a behavior as indicated by the change scores on the home intervention project was not significant (r = -.32). The correlation of the change score on the V.A.S. with the change score on the home measures was also not significant (r = -.61). Change scores for the home intervention projects were arrived at by subtracting the mean baseline scores from the mean intervention scores for each subject. Pre-test and post-test scores on the V.A.S. correlated significantly (r = .75). The analyses on the V.A.S. and the A.A.T. utilized raw scores.

When parents were asked to write course evaluations, their comments indicated great confidence in their ability to modify behavior. The three following comments are representative of this change.

"I think I can solve my problems now, without feeling that they are hopeless" (Subject Seven). Subject Eight writes, "There are still some problem areas, but I think they can be worked out by applying the same techniques (I) learned in the course." Subject Five writes, "I have seen changes in my attitude and ability to cope with everyday problems that arise."

#### Quiz Grades, Attendance and Punctuality

Percent of sessions attended and mean quiz scores for all eight subjects appear in Table IV. The mean quiz grade and mean attendance for the eight group members was 80.52% and 85%, respectively. Low mean quiz grades for Subjects Three and Six are attributed to difficulties with reading the English language.

## Table IV

Subject #	Mean Quiz Score	Mean Percent Attendance
1	98.67	75.00
2	94.17	100.00
3	36.17	75.00
. 4	87.50	82.50
5	84.16	82.50
6	46.83	62.50
7	96.67	82.50
8	100.00	100.00

#### Mean Quiz Score and Mean Percent Attendance

Three of the subjects were on time for all of the eight training sessions, four of the eight were late (more than 5 minutes but not more than 10) on one of the eight training sessions and one subject was late on 2 consecutive weeks.

# Cost of Training Analysis

The entire parent training program including training sessions, behavioral counselor training time, behavioral counselor family contact time, training materials, child care for children during training sessions and supplies cost \$1,160. This is a very low cost program in light of the changes that occurred in parent-child behavior and is low indeed if the training given can help the parents prevent problems that later may lead to the need for counseling or entail involvement of tax supported institutions such as the courts, probation authorities or jails.

# DISCUSSION

Walder et al. (1969) proposed that there were three principal approaches to parent training: educational groups, individual consultations and instruction in controlled learning environments set up in the home under supervision. The approach used in this parent training procedure incorporates all three to varying extents.

The class met for a 2 hour session once each week for 8 weeks. Lectures, films, quizzes and discussion groups were led by a graduate student teacher and were used to present basic information on recording and measurement, learning theory principles and discussion and

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role-playing of the application of these principles. This constitutes the educational aspect of the training.

The behavioral counselors were able to meet individually with the parents to help devise a change program and were in the home helping the parent learn how to carry out the change procedure and were able to provide feedback to the parent on his effectiveness with the child. This constituted the individual consultation and controlled learning environments aspects.

Results indicate that a low-cost, short-term program can be useful in training parents to modify the behavior of their own children. It is also important that parents acquired a degree of skill sufficient for independently formulating and carrying out new programs with other children in their family, thus showing a generalization of their knowledge beyond situations specifically taken up in training.

The success of the home programs instituted is evident by looking at the individual graphs. These indicate that parents can carry out intervention programs in their homes and act as trainers and/or managers for their own children.

The problem behaviors in the above examples are typical of those found in many homes. The difficulties were not sufficiently severe that the parents sought clinical assistance specifically for them, but they were a source of family friction and often led to interactions characterized by nagging, arguing, physical punishment and anger. If the training course prepared parents to deal only with these types of problems, the training would be considered successful.

An important criticism of previous studies which included homeintervention components has been the failure of parents to generalize what they learned in their specific management situations to other problems a child might have. The parents' ability as a group to rework a poor program and replace it with a very good one was illustrated in the following example: On week seven, Subject Six, still having difficulties with the course content as well as problems with the English language, reported that her six-year-old son was a nightly bedwetter and that she had begun a program for him but that it had not worked at all. It is interesting that the first question asked of her was not "What have you been doing?", but "How long have you tried it?" When told that the program had been in effect for a week and that nothing had improved, another parent asked her to explain her procedure. Her program required that the child wait 1 week for a reward consisting only of a small stuffed animal, and contingent upon 7 dry nights. No intermediate rewards were provided, nor were any hints for the child at how to prevent wetting provided.

Five of the other seven parents present helped formulate a program in which points could be accumulated and redeemed daily for a dry bed, for not drinking liquids after 8:00 p.m. and for setting an alarm clock for 2:00 a.m., when the child would get up and go to the bathroom. Programs such as this indicate that parents were capable of formulating a program showing some degree of sophistication in behavioral techniques of child management.

The program of behavior change instituted in the home gave parents practice following through with a behavior change program 38

and allowed them to experience success. This might have reinforced their coming to class, which in turn might have given them skills necessary to become more successful child managers.

The variables controlling the parents' data taking behavior also require some investigation. In some cases, daily data collection calls were necessary, while in others, weekly checks were sufficient. The frequency of checks depended primarily upon how much reinforcement the parent needed for taking data.

Since weekly behavioral counselor visits were made, it might also be important to consider what influence this had on the parents actually carrying out programs. This could lead to questions of whether parents will follow through on programs after behavioral counselor intervention ends. Follow-up data indicate that parents do continue their programs for at least a month after the end of the training course.

Although pre-test and post-test change scores on the A.A.T. and the V.A.S. were significant, scores on tests such as these require cautious consideration. Improved scores on the A.A.T. indicate that the subjects became better at choosing the most appropriate behavior change technique when given four possible techniques to choose from. It does not indicate that the parent would choose this technique over the others if the real situation were to arise, nor does it indicate that the parent could independently formulate a viable behavior change program.

A pre-test, post-test change score on the V.A.S. may indicate a change in feelings about the child, which could then lead to a

behavior change on the part of the mother toward the child. In addition, it is necessary to consider that the demand characteristics at the beginning of a program are such that the person may want to indicate that they need help, while at the end of the program they may want to indicate that they have received it. The parent may want only to have the experimenter believe that her attitudes toward her child had changed. It seems that the first alternative is the more likely since pre- and post-tests were 10 weeks apart (including a 2 week Christmas break) and the attitude scale itself contained 20 items. That a parent could have consistently indicated more positive choices seems improbable.

Despite the interpretative limitations, it does seem important that the parent learned to discriminate an acceptable from an unacceptable program of behavior change and that attitudes about the child became more positive.

It is not surprising that no significant correlations were found between either the A.A.T. or the V.A.S. and the change in child behavior as indicated by baseline and intervention data taken by the parents. These results can be interpreted as showing that these particular written tests are not good indicators of applied skills and that there is no reason to expect that when behavior of the child changes that parent verbal behavior will also change unless a specific program is designed to modify that behavior.

The high rate of attendance for group members may be attributable in part to their having been friends before the onset of training and their reinforcement of each other's success during training sessions.

Members freely brought in their home charts and discussed with group members problems and/or successes as well as questions as to how to handle other related child-management problems.

The effect of having a group that has known each other for some time cannot be underestimated. People looking in on the group expressed surprise at their openness with one another and that those in the group began their first training session openly discussing their child management problems. Openness like this is rare and the benefits of a talkative and trusting group are not easily obtained in a group made up of strangers.

For the above reason, it might be advantageous to train people who are already part of a "cohesive group;" for example, a single parents group, an active group of P.T.A. parents or an active 4-H group. If parents needing child management training are not part of a "group" it might be advisable to spend time developing, in a social atmosphere, a relaxing and spontaneous inter-relationship among group members.

The 85% attendance rate contrasts sharply with studies in which, for example, 24 fathers were recruited, only 14 of whom completed training and only 9 of whom attempted modification in the home (Lindsley, 1970). Morrey (1970) reported beginning with a group of 20 families and ending with 6.

Parents expressed relief at being able to work with their child directly rather than through an intermediary such as a social worker, counselor or psychiatrist. This too may have added to their willingness to attend meetings.

It is particularly important for the single parent to learn to deal effectively with their children. These mothers in general cannot escape aversive home situations as readily as could a mother in a two-parent family and often limited income further handicaps the mother's ability to get out of the home with the child or even to buy the child toys to keep him occupied.

Criticisms lodged against parent training studies in the past have led to questions of how effective the programs themselves have been (Shevin, 1973). Many of these criticisms cannot be made in regard to this study. Some of these critical factors are accounted for as follows:

1. Parents were involved in determining the course structure and in defining behaviors and change programs for the home.

2. Parents were taught to identify desirable and undesirable behaviors and to arrange consequences to strengthen or weaken the behaviors.

3. Parents were encouraged to talk of "behaviors" such as "compliance" rather than "non-behaviors" such as "not obeying."

4. Parents were asked to list possible reinforcers for their children but if possible to find out from the child what he might work for.

5. Training in class was directed primarily at training parents to apply behavior principles in situations that are essentially of a non-deviant nature such as shoe-tying, bed-making or tooth-brushing.

6. Parents were given training in how to break up target behaviors into small manageable parts. 42

7. Parents were taught the skills with which to establish new desirable behaviors in their children, thus extending their role from one of manager to one of teacher.

8. At no time was undesirable behavior "triggered" so that parents could be taught methods of handling the behavior.

9. In general, the desirable behaviors parents asked for would not make the child's new behavior maladaptive in present or future environments.

10. Parents were trained to use positively stated contingencies such as "If you help with dinner dishes, then you can go out to play" rather than using the negatively stated contingency, "If you don't help with the dishes, you can't go out."

11. No program was characterized by abrupt changes in contingencies (such as extinction and time-out). Programs were devised which stressed reinforcement for desirable behavior.

12. In addition to reliability checks carried out by the behavioral counselors, at least one additional check was carried out by the group leader to assess behavioral counselor reliability.

13. Parents received supervised practice in the home in applying principles learned in class.

Although many of the problems brought out by previous experimenters have been dealt with, many still exist. Some of these are presented here:

 Only eight subjects were available for this particular experiment. This eliminated the possibility of using a two or fourgroup design. Because of limited subject availability a pre-test,

post-test design was used. The problems inherent in this design necessitate taking extreme caution in interpretation of results (Campbell and Stanley, 1963).

2. Because a period of reversal does harm to both the child's behavioral repertoire and to the parent's repertoire of management, a demonstration of experimental control like that used in animal or laboratory studies was unjustifiable, although it is recognized that such a reversal is desirable from a research point of view.

3. Time limitations for behavioral counselor contact often resulted in a rush to begin intervention before a stable baseline could be obtained. It may be necessary to allow as long as 3 weeks to a month for a behavior to stabilize and in such a case, it might be necessary to supply parents with some reinforcer to maintain data taking.

4. Baseline on child behavior was begun after parents had begun reading the text and after 2 weeks of class instruction (see Training Outline, Appendix B). The knowledge from these sessions and from readings may have caused parents to inadvertently begin modifying behaviors.

5. Because of the difficulty in getting subjects for this study, subject selection was in no way random and the subjects chosen were probably those with the highest motivation to learn.

6. The success of the program may have been partly a function of the parents knowing each other. Replication might serve to assess the effects of this variable.

7. Although there was no indication given that parents gave false data to the daily checker and even though parents were encouraged to be honest in data recording, it is conceivable that data was falsified. Additional importance needs to be lent to honest data reporting when home programs are described to parents. More frequent behavioral counselor reliability checks are also suggested.

8. The high reliability for observations may have been influenced by several factors. One factor may have been that the behaviors chosen were for the most part rather discreet and easily discriminated. In addition, the behavioral counselor who acted as the reliability observer helped write the behavioral description and trained the parent in observation. The experimenter, however, also took reliability on the parent and behavioral counselor data and got a high reliability score on most occasions. An additional factor influencing reliability was that the primary observer (the parent) was aware that a reliability check was in progress.

9. Parents were not given a clear explanation of the behavioral counselor role and thus were confused. At first, parents thought the counselors would "give them a program." After the mutual establishment of the contract to carry out a change program, behavioral counselor visits were viewed with suspicion. At first parents did not understand the necessity to monitor the data that was taken. This should have been more thoroughly covered in the course, and is essential to completing a successful program.

10. Pencil and paper knowledge and attitude measures (such as the A.A.T. and V.A.S.) have been shown to relate little to actual

behavioral changes in parent behavior (Patterson et al., 1970). Even if change scores on these tests correlated with changes in child behavior, it could not be said that the relationship between these variables was causal.

11. The behaviors chosen by the parent and behavioral counselor were simple and discreet and for the most part were not of a serious nature. This meant that parents may have been postponing needed intervention on more critical and more complex problems.

12. Follow-up data was taken 1 month after completion of the parent training course. These data are not sufficient to indicate long-range effects of the training program. A follow-up at 6 and 12 months is advised.

13. Cautious interpretation is necessary when viewing follow-up data since only 3 days of data were taken. These data, therefore, cannot be seen as necessarily representative.

14. Due to lack of control groups, non-random subject selection and pre-test, post-test design problems, results cannot be readily generalized to other populations.

#### SUMMARY

The results of this study indicate that an 8 week parent training course can be effective in training parents to modify at least one of their children's behavior problems and can provide some parents with the skills necessary to independently implement new behavior change programs.

Parents' attitudes toward their children were shown to have changed in a positive direction over the 8 week period, as indicated by a verbal attitude scale. Scores on a test of applied knowledge also increased significantly over 8 weeks.

For future experiments, it is recommended that group members spend time getting to know one another, as this will help increase spontaneity in the group and encourage group discussions. It may also be necessary to allot a longer time for baseline to be taken in the home.

A valuable addition to the home projects might be weekly data taken by the behavioral counselor on, for example, frequency of positive and critical comments by the parent in the home. Data such as these could be analyzed to indicate positive or negative behavior change on the part of the parent, rather than the child, and may be correlated with an attitude scale, and with child behavior change.

A four group design could be employed to differentiate between the effectiveness of the training sessions themselves and the effectiveness of the behavioral counselor home intervention. The design would include three experimental groups and two controls:

- 1. an experimental group receiving both the training sessions and behavioral counselor home intervention
- an experimental group receiving only the eight training sessions
- an experimental group receiving only the behavioral counselor home intervention program

- a control group which got together and talked to one another
- a control group which received only a pre- and post-test

A study designed in this fashion could be an invaluable contribution to the understanding of the effect that each component of this program (including the passage of time) has on the total program results.

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#### APPENDIX A

Parent Training Course Outline

# Session I.

- I. Welcome parents and introduce program
  - A. Fitting for this particular group
  - B. Coming to group does not imply family or child problems
  - C. Read contract and discuss
  - D. Contract signing
  - E. Explain assignments, quizzes
  - F. Pre-resting
- II. Pass out books: Living with Children Gerald Patterson
  - A. Read introduction
  - B. Read "How to Use This Book"
  - C. Do questions 1, 2 and 3 of Chapter 1
- III. Assignment: reading chapters
  - 1, 2 and 3 of Living with Children
  - IV. Social Learning
    - A. People learn how to behave from each other--leader gives examples
    - B. Group gives examples of learned behavior
    - C. Leader describes a behavior--group discusses ways it might have been learned
    - D. Discuss how we taught a good behavior
    - E. Discuss how we may have been teaching misbehavior

V. Parents turn in list of problem behaviors with their child

# Session II.

I. Quiz on Chapters 1, 2 and 3

II. Behavior

- A. Behavior must be observable and measurable by others
- B. Give examples of behavior
- C. Give examples of non-behavior
- D. Each member gives a behavior
- E. Each member rewords non-behaviorally defined sentence into observable behavioral definition
- F. Role play several situations
- G. Group words scenes behaviorally
- H. Reword child behavior in behavioral terms
- III. Behavior strengtheners
  - A. Review reading of Chapter 2 Chapter 3
  - B. Hand out "Rules to Know About When and How to Reinforce" Discuss each rule
  - C. Before film, briefly mention that behaviors followed by punishers or by not giving a reward are weakened
  - D. Film: "Who did What to Whom"
  - E. Demonstration of how to reinforce
  - F. Role playing
    - 1. Creating a situation where behaviors are reinforced
    - 2. Teach a task to a child
  - IV. Assignment 4, 5, 6 -- Data on Positive Comments

# Session III.

- I. Quiz on Chapters 4, 5 and 6
- II. Introduce behavioral counselors
- III. Discuss social and non-social reinforcers
  - A. Discussion of social reinforcers
  - B. Discussion of activity reinforcers
  - C. Discussion of token reinforcers
  - D. Pass out list of social and activity reinforcers
- IV. Observing and data taking
  - A. Reasons for taking data
    - 1. Human error
    - 2. See progress
  - B. Why to take baseline
  - C. Take data on a behavior of a group member or leader (i.e., touching face behavior, smiling, agreeing) More closely define each term
- V. Present data on positive and negative comments
- VI. Behavior strengtheners continued
  - A. Practice in using reinforcers
  - B. How to use reinforcers and how not to
- VII. Parents go with behavioral counselors for problem identificationVIII. Assignments: Baseline data Chapters 7 and 8

## Session IV.

I. Quiz on Chapters 7 and 8Discuss reading

- II. Parents discuss results of baseline
- III. Behavior weakeners Part 1
  - A. Physical punishment and why to avoid it
  - B. Alternatives to spanking
    - 1. Remove a reinforcer
    - 2. Time-out
  - C. "Effective punishment" handouts
  - D. Consistency
  - E. Role playing time-out
  - F. Role playing non-anger punishments
  - IV. Combining reinforcers and punishers
  - V. Role playing
    - A. Time-out
    - B. Non-anger punishment
- VI. Assignment: Chapters 9 and 10

Session V.

- I. Quiz on Chapters 9 and 10
- II. Four or five parents present their home program
  - A. Behavior definition
  - B. Baseline
  - C. Intervention procedure
  - D. Discussion of principles involved after each program is presented
- III. Shaping the development of new skills

A. Successive approximation

- B. Prompting
- C. Trial and error learning discussion
- IV. Role playing: A shaping procedure discussion
- V. Assignments: Chapters 11 and 12

## Session VI.

- I. Quiz on Chapters 11 and 12
- II. Four or five parents present home program
  - A. Behavior definition
  - B. Baseline
  - C. Intervention procedure
  - D. Discussion of principles involved after each program presentation
- III. Token economies
  - A. Finding your goal
  - B. Breaking it down
  - C. Reinforcing desirable behaviors
  - D. Punishing undesirable
  - E. Reinforcing competing responses
  - F. Recording progress
    - 1. Who will record
    - 2. How often
  - G. Changing your program
  - H. Fading out the program
  - IV. Discussion
  - V. Assignment: Chapters 13 and 14

# Session VII.

- I. Quiz on Chapters 13 and 14
- II. Discuss remaining home projects
  - A. Behavior definition
  - B. Baseline
  - C. Intervention procedure
  - D. Discussion of principles involved after each home program is presented
- III. Film: Rewards and Reinforcers
  - IV. Discussion of film
  - V. Substitute positives for negatives Group discussion of home problems
  - VI. Backward chaining
    - A. Learning how to dress
    - B. Slide show on learning to make a bed

Session VIII.

- I. Parents discuss results of home projects
- II. Wrap up
  - A. Thank-you
  - B. Post-tests
  - C. Arrangements for follow-up

#### APPENDIX B

Behavioral Counselor Procedure

Identification and Program Development

- Have parents establish a list of general goals and complaints.
   Parents should state clearly what they want the child to do.
   "To be good" is not clarifying the terminal behavior which defines goodness for that parent.
- The behavioral counselor and the parent select a single problem behavior.

From the list of problem behaviors, a single problem behavior will be chosen. For the first intervention, the problem chosen should be as discreet, observable and specifiable as possible. By reducing the immediate requirements of the parents to more manageable proportions it is more likely that any efforts at behavior change will meet with success. This focus helps develop confidence in the methods used and gives parents a sense of control that they did not have previously.

- 3) Have the parents specify in behavioral terms the precise behavior that is presently occuring and which they wish to change.
- Have the parents specify in behavioral terms the precise behavior which they desire.

This definition should be one of the terminal behaviors or goal.

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- 5) Have the parents begin by taking baseline data with at least one data point a day.
- 6) Discuss with the parents how they may proceed to achieving the terminal behavior in a step-by-step manner.

For various reasons, the child may not be capable of the terminal behavior because that behavior may require the foundation of prior learning. Parents will make it clear to themselves what the steps are toward the final goal. This will also help the parents recognize progress toward the goal.

 Have the parents list positive and negative reinforcers which may be effective.

> The task of the behavioral counselor here is to determine as completely as possible the total resources which are available to the parents. The parents will be asked to note what is reinforcing for their child, how the child spends his free time, and if the child is old enough, he will be asked to indicate things he himself likes. At this time there should be a thorough investigation of the social resources (praise, attention, affection, etc.), physical resources (radio, T.V., etc.) and activity resources (bicycle riding, local zoo, etc.) available to the child.

 Discuss how parents may vary the reinforcers they give to the children.

> There should be a discussion of the possibilities of giving different amounts of the same reinforcers or different reinforcers. The importance of this step lies in the fact that

varying the reinforcers enhances the possibility that desired behavior, when it occurs, will be maintained for long periods of time.

- 9) Have the parents discuss what deprivations are possible. The value of a reinforcer fluctuates with the child's being either deprived or satiated with it. It is very important to discuss with the parent the possible long-term benefits that might occur with the deprivation of such simple things as watching T.V. or using the telephone. It is helpful to discuss with the parents the usually many things the child greatly desires but does not have or is not obtaining as often as he desires or that can be taken away and then given contingent on appropriate behavior.
- 10) Discuss how parents may increase desired behavior by immediately giving a positive reinforcer following the behavior.

It may become necessary at this point to begin searching for effective primary and secondary reinforcers which can be given immediately. For example, if praise is not now reinforcing for a child, devising a program of pairing verbal praise with a back-up reinforcer may serve to make the verbal behavior a reinforcer. A discussion of the feasibility of a star or token system should be made here, as well as a decision that if a star or token system is used, there will be a program for making the stars or tokens reinforcing.

 Discuss with the parents how they may increase desired behavior by immediately terminating a negative reinforcer following the behavior.

Both positive and negative reinforcement strengthen preceding behavior and both can be effectively employed in the program. If parents insist, on certain activities of their children, such as doing the dishes, and the child finds this to be aversive, a relief from this chore could be a source of negative reinforcement and could be effectively used.

12) Discussion of other techniques where the behavioral counselor thinks it is applicable.

> This discussion might include ways of decreasing undesired behavior by withholding the reinforcers which follow it (extinction), decreasing the undesired behavior by removing a positive reinforcer (punishment by loss technique), or decreasing the undesired behavior by time-out.

13) Choose the appropriate program.

After completing steps 6 through 12, the parent and the behavioral counselor will come to a conclusion as to the procedure to be followed and may choose one or any combination of the methods discussed when appropriate.

It is very important at this point for the behavioral counselor to help the parents devise a program they will follow and one which is mutually acceptable as being a behaviorally sound program as considered by the counselor and as being a reasonable and clear program as considered by the change agents involved. At this point the parent and the behavioral counselor will write down the program. The parent's role and the role of the behavioral counselor in the change process should be clearly stated and should be agreed upon by both parties. A contract to carry out the specified behavioral intervention program will be signed by the parent and behavioral counselor.

Any program should include at least one data point daily. If there are in any instances problems in coming to a mutually agreed upon behavior change program, the behavioral counselor and the parent will come to the group leader and she will try to help the two parties come to an agreeable solution.

#### Intervention Program

14) Monitor data taking.

The behavioral counselor will call the parent to check on data taking at least twice during the first week of intervention. For every week following, the behavioral counselor will be expected to ask about data on a weekly basis. The behavioral counselor should not fail to reinforce data taking!

15) Discuss problems inherent with the intervention procedure. During the first 2 weeks of the new intervention procedure, the behavioral counselor will discuss any problems of the intervention procedure. These include any problems in data taking, definition of a problem behavior or of implementation. The counselor will re-explain any unclear part of the procedure and will change minor problems where necessary.

Minor problems might include problems with where the chart is or with the particular method of counting a particular behavior.

The behavioral counselor will not change the intervention procedure itself until the end of at least 14 data days, allowing a full 2 weeks for the procedure to begin working. If for some reason a change in procedure is felt imperative before then, the group leader should be consulted.

16) Weekly reliability checks.

The behavioral counselor will take reliability on parent recording at least once weekly. The group leader will take reliability with the counselor at least once during the intervention and once during baseline. Parent data should be collected by the behavioral counselor at the weekly meetings.

17) The behavioral counselor will observe the data.

If no decrease has occurred in undesirable behaviors, the behavioral counselor should inquire with the parent, asking specifically what the parent does when the child misbehaves and behaves. He should then look specifically for where a parent might not have followed the program plan as written, may be inadvertently reinforcing undesirable behavior, or may be doing the correct thing but not be doing it consistently. If any of the above has been the case, the behavioral counselor should point out to the parent what might have been occuring and suggest concrete, observable and definable ways for the parent to alter the situation.

18) If a decrease in undesirable behavior has occurred or desirable behavior.

> The behavioral counselor should point out and reinforce parent success. It is important to talk about ways the parent might maintain the new behavior. Suggestions might include looking back to the parent's list of reinforcers and finding new ones, varying the amounts of reinforcers given or even just adding a new dimension to the reinforcing process.

19) When the goal behavior is reached.

When the terminal behavior is reached the behavioral counselor and the parent should devise some system of fade-out. If the target is reached close to the end of the training course, the behavioral counselor should give the parent some concrete steps for either continuing the present program or for some kind of maintenance.

20) Wrap-up.

If the parent reaches the desired goal within the first 3 weeks of intervention, the behavioral counselor will help the parent devise a new program for a new behavior. The behavioral counselor should not lend as much direct assistance as he did in formulating the first program but should prompt correct investigation procedures and reinforce independence on the parent's part.

The final week of intervention can be one in which the behavioral counselor might help the parent think of ways 63

to apply behavioral principles to the management of their other children or to the management of another behavior in the same child.

## APPENDIX C

# Applied Skills Pre- and Post-Tests

- Seven-year-old Jody does not go to bed at her bedtime. Which of the following would you use to train her?
  - A. Let her stay up until she falls asleep.
  - B. Punish severely with a spanking.
  - C. Try to reason with her.
  - D. Tell her a story if she goes to bed quietly and on time.
  - E. Disregard it--she must fall asleep eventually.
- 2. A mother and child are yelling at each other. With this information, what can you say for sure about the situation?
  - A. The only thing this child understands is a raised voice.
  - B. The mother and child do not relate well.
  - C. The mother has rewarded the child's yelling.
  - D. The mother and child are yelling at each other.
  - E. The child is teasing the mother.
- 3. Let's say that the yelling in question is the fault of the child. If you were asked to stop the yelling of the child, you would:
  - A. Mildly punish the child by placing him in a small closed room for 5 minutes every time he begins yelling at the mother.
  - B. Discuss the yelling with both the mother and the child.
  - C. Scold both the mother and child.
  - D. Threaten to spank the child if he does not stop yelling.
  - E. Say, "Stop you two; you sound like your Aunt Bertha."

4. The best way to get Billy to hang up his coat is to:

A. Repeatedly ask him to do so.

- B. Ask him to hang up his coat; if he doesn't, do it yourself.
- C. Ask him to hang up his coat; if he doesn't, ignore him until such time as he does. When he does, give him a cookie.

D. Explain to him how nice it would be if he did.

- 5. Your 12-year-old son Johnny is going out to play. You say, "Be home by 5:30 for dinner. If you are not here by then, we will begin without you." Johnny is not home at 5:30. Therefore, you should...?
  - A. Call outside, "Johnny, it's 5:30."
  - B. Telephone his friends' homes to see if he is at one of them.
  - C. Punish him by having the whole family miss dinner because he was not ready on time.
  - D. Begin without him. Johnny will miss dinner.
  - E. Wait 30 minutes and no more.
- 6. Four-year old Tommy has been told to wash his face and hands before dinner. However, he comes to the table without washing. Your response should be...?
  - A. Say, "Tommy, you must wash before dinner."
  - B. Say, "There sits dirty-pig Tommy. So we will put his food all in a pig-pile on the plate." Then do so.
  - C. Say, "This is absolutely the last time I am going to tell you to wash your hands before dinner."
  - D. Ignore it. Even the best of us slips once in a while.

- 7. Eleven-year-old Anne has just called you a "dirty, stinking, son-of-a-bitch." You may...?
  - A. Say, "It takes one to know one" and laugh.
  - B. Ignore this comment and talk to someone-else.
  - C. Try to explain to her why she should not use such language.
  - D. Slap her once, smartly on the cheek, and ignore her crying. Continue with your household chores.
  - E. Scream at the top of your voice, "Don't you ever say those filthy words again!"
- 8. You want Billy to learn how to tie his shoes. You should:
  - A. Tell him how to do it, with very, very explicit instructions.
  - B. Give him a shoe and have him learn it himself.
  - C. Explain to him how proud you would be if he tied his shoes. And reward him every time he sits down to learn.
  - D. Give him loafers.
  - E. Show him the first step, have him try it, reward him for any success he has; as he learns each step, show him the next more difficult step.
- 9. You pay your daughter \$1.00 for doing the next week's dishes. During the week she occasionally neglects to do them. When this occurs you should...
  - A. Do the dishes for her.
  - B. Buy a dishwasher.
  - C. Have your husband scold her severely the next morning at breakfast.
  - D. Take back 20¢ of her allowance for each occurrence.
  - E. Beat her severely when she comes home.

- 10. Your son Orville often hits his sister twice a day. You should...
  - A. Explain to Orville how bad it is to hit his sister.
  - B. Teach Orville's sister how to defend herself.
  - C. Praise Orville when he is being nice to his sister.
  - D. Threaten Orville with a spanking.
  - E. Get Orville a prescription for barbiturates.
- 11. Four-year old Peter is very hard to manage. Peter often kicks objects or people, speaks rudely and often makes threats to his brothers and sisters. To deal with this you would:
  - A. Try giving him a toy each time he did this so that his attention would be distracted.
  - B. Place Peter in his room each time he did this.
  - C. Try to explain to Peter why he should not do things like this.
  - D. Spank him each time he did any of these things.
- 12. Which of these sounds like a good plan to you?
  - A. You didn't make your bed, so you can't go out and play.
  - B. When you make your bed, you can go out and play.
  - C. Make your bed right now and I won't give you a spanking.
  - D. You can go out and play now, but when you come in you must make your bed immediately.
- 13. Jimmy is learning how to write his name. He's written JIM only once before and that was with a lot of help. One day without any help, he begins writing JI.. and then says he forgot what to do now. You would:

- A. Tell him "M."
- B. Tell him, "I know you can do it. You've done it before. Come on now."
- C. Say, "That's really good that you've written JI all by yourself. I'm really proud. The last letter is M."
- D. Say, "I'm really proud that you're writing now. You're really a wonderful boy."
- 14. Timmy teases Rolanda pretty often. The best solution would be for you to:
  - A. Ignore Timmy every time he teased Rolanda.
  - B. Talk to Timmy and ask him to please not tease Rolanda as it upsets her very much.
  - C. Teach Rolanda to ignore Timmy when he teases.
  - D. Let the children fight it out between themselves. Rolanda has to learn to deal with this.
- 15. Debbie has violent tantrums. She hits people and tears anything she can get her hands on. You would:
  - A. Punish her severely when she tantrums.
  - B. Place Debbie in a room by herself when she tantrums and let her come out only after she has been quiet for a few minutes.
  - C. Each time she tantrums tell her that you are very upset that she's been ripping things and hitting people and give her a toy to prevent her from getting angry again.
  - D. Tell Debbie that if she doesn't shape up, you're going to send her to a foster home.

- 16. When a child is first learning a new desirable behavior, he will learn most quickly if he gets a reward
  - A. Occasionally.
  - B. Frequently.
  - C. At regular intervals.
  - D. Each time the desired behavior occurs.
- 17. You have, after weeks of work, gotten Neil to tie his shoes without help. Neil has tied his shoes every morning now for 2 weeks. You've praised him every day for doing it. You should: A. Stop all the praise comments now that he's doing it every day.
  - B. Every time that Neil ties his shoes say, "I'm really glad that you've finally learned to tie your shoe."
  - C. Say, "You've been a really good kid lately. Thank-you very much."
  - D. Now and then say, "Neil, you've been very good at tying your shoes without my help. I really think that's great."
- 18. Ray is a very noisy child. He yells and laughs very loudly.
  - To get him to be quieter you would:
  - A. Leave him alone most of the time--children are all noisy at one time or other in their lives.
  - B. Spank him if he got too noisy.
  - C. Give him praise when he is quiet and ignore the noisiness.
  - D. Take Ray to the park so that he can get the noisiness out of him.

- 19. It's been 2 months now since you mopped the kitchen floor. You just can't get yourself to do it, and tonight your favorite T.V. show is on. You don't think you'll ever do the floor. You should:
  - A. Say to yourself, "I will watch the T.V. tonight and then in return will wash the floor tomorrow."
  - B. Say, "I will wash the floor now. If I do, I can watch theT.V. show; if I don't, no T.V."
  - C. Say, "I'll watch my favorite T.V. show but won't watch any other T.V. until I wash the floor."
  - D. Say, "I'll do the floor tomorrow."
- 20. Susan seems to be getting into fights on the way home from school. You know because the other kids' moms have been calling you to complain. The fights seem to be happening daily. You know this, too, because Susan comes home really dirty. You should:
  - A. Tell her that each time you hear about her fighting with other children or when she comes home that dirty she will lose one-half of her allowance for the coming week.
  - B. Spank her every time she comes home dirty or if you get a call.
  - C. Explain to Susan that girls don't fight and that you'll be very disappointed if she fights again.
  - D. Leave her alone--the fight itself was enough punishment.

#### APPENDIX D

#### Verbal Attitude Scale

Following is a list of statements to which you might have any one of five reactions. You might strongly agree, agree, be uncertain, disagree, or strongly disagree. Please draw a circle around whichever of these choices best describes the way you feel about the child you have decided will be the one involved in the intervention program.

- I consider myself very close to this child.
   Strongly Agree Agree Uncertain Disagree Strongly Disagree
- I feel that this child does not have enough respect for his (or her) parents.

Strongly Agree Agree Uncertain Disagree Strongly Disagree 3. I feel that this child does not love me enough.

- Strongly Agree Agree Uncertain Disagree Strongly Disagree
- I find myself being nice to this child at one moment and being very angry at it the next.

Strongly Agree Agree Uncertain Disagree Strongly Disagree 5. This child has been an extremely difficult child to bring up.

- Strongly Agree Agree Uncertain Disagree Strongly Disagree
- I am extremely proud of this child.
   Strongly Agree Agree Uncertain Disagree Strongly Disagree
- I feel that this child complains too much.
   Strongly Agree Agree Uncertain Disagree Strongly Disagree

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8. I am somewhat disappointed in this child.

Strongly Agree Agree Uncertain Disagree Strongly Disagree 9. This child is difficult to control.

Strongly Agree Agree Uncertain Disagree Strongly Disagree 10. I am often annoyed by this child.

Strongly Agree Agree Uncertain Disagree Strongly Disagree

- 11. This child is everything that I could hope a child of mine to be. Strongly Agree Agree Uncertain Disagree Strongly Disagree
- 12. I like to spend my spare time with this child.

Strongly Agree Agree Uncertain Disagree Strongly Disagree

In each of the following you are given a statement which can be completed in any one of several ways. Place a check in front of whichever of the alternative choices most nearly resembles your own feeling.

- 13. I find myself becoming angry at this child . . .
  - Very frequently
  - \_\_\_\_\_ Quite often
  - \_\_\_\_\_ Sometimes
  - Seldom
  - \_\_\_\_ Never

14. I feel that I get along with this child . . .

- Very well
- Well

Fairly well

\_\_\_\_\_ Not very well

Poorly

15. This child gets on my nerves . . .

Frequently
Quite often
Sometimes
Seldom
Never

16. I get . . .

\_\_\_\_\_ Very much satisfaction from this child.

Considerable satisfaction from this child.

Some satisfaction from this child.

Very little satisfaction from this child.

No satisfaction from this child.

Following is a list of traits of personality. Below each trait are five expressions which describe five different degrees of the trait. The first of these descriptions would indicate that the child being described possesses the trait considerably more than the average, the second would indicate that the child possesses the trait noticeably more than the average, the third average, the fourth noticeably below average, and the fifth considerably less than the average.

Please draw a circle around whichever of the descriptions most nearly describes your child.

#### 17. HELPFULNESS

Very Helpful More Helpful than the Average Average Less Helpful than the Average Not Helpful at All 74

## 18. RESPECTFULNESS

Very RespectfulMore Respectful than the AverageAverageLess Respectful than the AverageVery Disrespectful

19. OBEDIENCE

Very Obedient More Obedient than the Average Average Less Obedient than the Average Very Disobedient