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Effectiveness of Child-Management Training

Candace Joan Varvil

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EFFECTIVENESS OF CHILD-MANAGEMENT
TRAINING

by
Candace Joan Varvil
Bachelor of Science, Northern Michigan University, 1972

A Dissertation
Submitted to the Graduate Faculty
of the
University of North Dakota
in partial fulfillment of the requirements
for the degree of
Doctor of Philosophy

Grand Forks, North Dakota
December
1977
This Dissertation submitted by Candace Joan Varvil in partial fulfillment of the requirements for the degree of Doctor of Philosophy from the University of North Dakota is hereby approved by the Faculty Advisory Committee under whom the work has been done.

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Title  Effectiveness of Child-Management Training

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Signature  

Date  

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DEDICATION

To my parents,
Fern and Dana Varvil
Who are, themselves,
experts in the field
of child-management.
ACKNOWLEDGEMENTS

I wish to thank the members of my committee, Dr. Alice Clark, Dr. James Clark, Dr. Thomas Deats, and Dr. Lynn Johnson.

A special thanks goes to Dr. Robert Beecroft, my committee chairman, for his constructive criticism, advice, and encouragement.

I would also like to extend my thanks to the Grand Forks Public School System for providing me with subjects.
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ABSTRACT

The object of this study was to compare two different child management approaches (one general and one more specific) and to determine their effectiveness relative to each other. Subjects for this study were 22 parents who responded to a letter sent out by the group leader through four elementary schools in the Grand Forks Public School System. One week prior to the beginning of the sessions the leader visited each of the families to explain the research program and to have the parents fill out the pretest measures. All parents filled out basic demographic data, the Hereford Parent Attitude Survey, and the Behavior Problem Checklist. The parents selected one of the four groups (Monday, Tuesday, Wednesday, or Thursday) to begin the following week. Parents who attended the Monday and Wednesday sessions were in the General approach while parents in the Tuesday and Thursday sessions were in the Specific approach. Both approaches were generally comparable with respect to the demographic information and their scores on the Hereford Parent Attitude Survey. In addition, there were no significant differences between the Monday or Wednesday and the Tuesday or Thursday group when analyzed separately. All groups were scheduled for a five week period with each of the sessions lasting approximately two hours. Both treatment approaches were primarily educational in nature and focused on the acquisition and subsequent application of behavior modification principles. Parents in the General approach focused on the understanding and application of general behavior modification principles, while parents in the Specific approach were trained to apply behavior modification techniques specifically to their child’s problem behavior. Brief lectures, group discussion, occasional modeling by the group leader, movies, and handouts were an integral part of the program for both approaches.
At the end of the five weeks, the parents filled out the post-test measures. They completed the Attitude Toward Therapy Inventory, and a brief test of behavior modification terminology and its appropriate use, during the last session. The parents were instructed to continue recording data on the target behavior for one more week, resulting in a total data collection period of four weeks. They returned this data along with the posttest form of the Behavior Problem Checklist, and a questionnaire designed to assess whether parents had generalized the behavior modification principles to other problem areas, by mail the following week.

Four outcome measures and two measures of parental cooperation were obtained and used in the data analyses: Behavior Problem Checklist scores, Target Behavior Reduction scores, Attitude Toward Therapy scores, attempts at generalization, attendance and completion of assigned data. Two-tailed t-tests were employed to check for differential treatment effects as a function of group assignment; however, no significant differences were found to exist between the two experimental groups on any of the outcome measures. Although both approaches showed improvement relative to their own baseline measures, there was no strong evidence to suggest that one method of training was superior to the other. Therefore, in order to shed additional light on the relative differences between the two approaches and the program as a whole, clinical data in the form of individual case studies was also presented.
CHAPTER I

INTRODUCTION AND BACKGROUND

The twentieth century has witnessed the growth of two major clinical approaches to the understanding and treatment of abnormal behavior, namely psychoanalysis and behavior therapy. The former approach developed primarily as a consequence of the work of Freud, while the latter developed primarily from the work of Pavlov. Behavior therapy, or behavior modification as it is sometimes referred to, emerged in the mid 1920's but was overshadowed by the psychoanalytic approach which has established itself as the dominant conceptual model in the field of mental health. In general, the psychoanalytic approach has been characterized by its emphasis on the clinical diagnosis and treatment of patients and its goal is to alter the underlying personality of the patient. The behavioral approach, on the other hand, grew out of laboratory studies with an emphasis on the controlled manipulation and measurement of abnormal behavior. The history and development of psychoanalysis and its application to abnormal behavior will not be reviewed, as its main tenets and methods are well known and have been well documented. The main purpose of this chapter is to present a brief history of behavior modification with particular emphasis on the application of behavior modification to child management training.

Behavior therapy has attracted widespread attention and growing acceptance in the field of clinical psychology in recent years. The behavior therapies have their historic roots in Russian reflexology and American behaviorism. The term behavior therapy has evolved from the work of Pavlov on the classical conditioning of emotional responses while the term behavior modification is an outgrowth of Skinnerian methodology with its emphasis on the observation of behavior and change in behavior through contingent reinforcement. Behavior therapy has come to be associated with the conditioning therapies including counter-
conditioning, reciprocal inhibition, aversive conditioning, and negative practice; however, the focus of this paper will be on behavior modification principles and thus the term behavior modification will be used throughout.

Initially all learning principles were based on the observation and analysis of simple animal behavior in a laboratory setting. In the 1950's Skinner expanded this approach to include both simple and complex behavior in humans as well as animals. More recently behavior therapists have taken the learning principles out of the confines of the laboratory and applied them to a wide range of problem behaviors. Behavioral techniques have been used successfully with children and adults with diagnoses ranging from neurotic to psychotic to mentally handicapped. Learning principles are no longer restricted to simple phenomena, but now embrace more complex forms of behavior disorders including sex, aggression, delinquency, parent-child interactions, and alcohol and drug addictions.

Behavior modification represents a distinct departure from the more traditional forms of psychotherapy. Psychodynamic theories, stemming from the work of Freud, are characterized by an attempt to identify "underlying disease processes" that most psychodynamic therapists believe cause behavioral symptoms. In contrast to dynamic theories that rely heavily on clinical observation, inference, and subjective data, behavioral models attempt to objectively observe and measure behavior and systematically modify it. Behavioral models focus on overt behavior and the environmental contingencies that produce and maintain behavior. As such, they all but ignore ego structures, defense mechanisms, the unconscious, and transference phenomena.

Behavioral models do not accept the concept of disease due to faulty personality development in the formative years; therefore, they place less emphasis on historical data except as it relates to the current problem. Behavior therapists are interested in the conditions that maintain behavior, not in their genesis.

Behavioral approaches view the deviant behavior as the problem itself, not as a symptom or manifestation of some underlying disease.
Treatment, therefore, is aimed at the deviant behavior and not at some underlying disease process.

Behavior modification has been criticized on two grounds. First, the techniques have been attacked for their failure to retain roots in firm scientific evidence. Behavior modification has also been accused of offering a mechanistic technology that dehumanizes both the therapist and the client. Despite these criticisms, behavior modification techniques have been reported to be consistently successful with a variety of problem behaviors including phobias, anxiety, obsessional thinking, sexual disturbances, addictions, and child management problems. The techniques are equally applicable to children, psychotics, and the mentally handicapped. Backward psychotics have been able to lead more normal lives after acquiring rudimentary social skills through behavior modification techniques. The behavioral approaches have claimed success rates equal to or better than that of traditional psychotherapy and in a minimal number of sessions. Furthermore, symptom substitution or a recurrence of the problem behavior is rare, according to behavior modification advocates.

Behavior modification techniques have the additional advantage in that persons unsophisticated in psychological terminology can be taught to successfully apply behavioral learning principles. In recent years, the training and utilization of parents as behavior modifiers for their children has become increasingly popular. Some of the reasons for the widespread use of parents as behavior modifiers are: 1) parents constitute an inexpensive source of therapeutic manpower; 2) since parents are usually the most influential force during their child's early years, they are in the best position to modify his behavior; 3) training parents in behavior modification techniques facilitates the generalization of treatment effects by increasing the probability that parents will be able to handle new problems when and if they arise.

The number of children and families in need of psychological service has increased tremendously in recent years. To meet this growing demand for service, mental health professionals have begun
to train and utilize parents as behavior modifiers for their own children. Training parents in behavior modification techniques constitutes an inexpensive and effective method of dealing with multiple problem behaviors in addition to augmenting the existing therapeutic manpower capabilities.

Another advantage of utilizing parents as behavior modifiers is that parents are usually in the best position to modify their children's behavior. Most investigators point to the necessity of working with the child in his natural environment since it is the contingencies in the child's social environment that are most responsible for the adjustment of the child (Patterson, Littman, and Hinsey, 1964). Peine (1971) notes that most of a child's behavior is maintained by effects on the natural environment and can be most effectively modified by changing the reinforcement contingencies supplied by the social agents who live with the child. Since most maladaptive behavior patterns are acquired in the child's natural environment, it seems reasonable to assume that the environment must be modified for change to occur and be maintained. If the natural environment is not modified, new adaptive behaviors developed in a clinic may be extinguished at home, and behaviors extinguished in the clinic may be reinstated at home. Since parents may unknowingly reinforce maladaptive behavior and extinguish appropriate behavior, their inclusion in the child's therapeutic program becomes highly desirable in most cases.

The implications of teaching parents to modify their child's inappropriate behavior and giving them a tool with which to prevent the future recurrence of these behaviors are far reaching. Giving parents a tool with which to deal with or prevent future problems represents a significant departure from traditional therapeutic methods and a step closer to a preventive model of mental health service.

Training parents in behavior modification techniques is fast becoming an accepted technique for dealing with child behavior problems. First, behavior modification offers a relatively easily learned set of concepts that can be taught to persons unskilled in sophisticated
therapeutic techniques. Second, a minimum number of mental health professionals can instruct a group of parents in behavioral principles in a relatively brief period of time. Finally, research has already demonstrated the applicability of dealing with problem behaviors in their natural environment (Patterson, Littman, and Hinsey, 1964).

Although numerous studies have successfully demonstrated the efficacy of teaching parents to modify their children's behavior, relatively little research attention has been devoted to the variables that account for this success. O'Dell (1974) stated that the major research problem is the lack of data on producing and maintaining changes in parents. He suggested that comparative group research is needed to define the content and training techniques that are most effective with various types of problems and different child problems. Johnson and Katz (1973) suggested that teaching principles of behavior change versus teaching how to modify a specific behavior might be a fruitful area for comparative group research. Both Johnson and Katz (1973) and O'Dell (1974) concurred that the generalization and maintenance of changes in both parents and children is another neglected area.

To date, no studies have attempted to compare the relative effectiveness of a specific and a general approach to child management. In view of the relatively high dropout rates reported by some groups and the relative lack of data on the variables that account for the acquisition, generalization, and maintenance of treatment effects, it seems relevant to take a closer look at the training approaches per se to determine their effectiveness relative to each other. Therefore, the purpose of this study will be to compare two different child management approaches (one general and one more specific). Statistical comparisons will be made between the two approaches; however, in order to shed additional light on the relative effectiveness of these approaches, the data will also be analyzed on a case by case basis and supplemented with clinical material.
CHAPTER II
REVIEW OF THE LITERATURE

In recent years behavior modification oriented child management groups have become increasingly popular. Numerous studies have demonstrated the efficacy of teaching parents to modify a wide range of problem behaviors in their children. The literature review that follows will be divided into four major sections: 1) approaches, content and techniques; 2) types of parents; 3) implementation, cost factors, and follow-up; and 4) research.

Approaches, Content, and Techniques

In a recent review of the literature on behavioral counseling, Tavorminia (1974) concluded that most parent training procedures, regardless of the method used, share a common denominator in that they all attempt to teach behavioral principles and their subsequent application to problem behaviors. Patterson (1971) has isolated two critical steps in this process: 1) training parents to carefully observe and record their child's behavior and 2) training them to appropriately reinforce the child's behavior.

Despite the fact that most investigators agree on the importance of these steps, there has been little agreement on how these goals should be reached. This lack of agreement has resulted in a variety of different approaches and techniques to the training of parents in behavioral principles and skills. Unfortunately, many of the studies reviewed failed to adequately describe the approach or techniques used, making comparisons among studies virtually impossible. Nevertheless, some tentative statements regarding the most common approaches and techniques in training parents in behavioral skills will be attempted.

Training approaches can be categorized into three basic types: 1) educational groups; 2) individual consultation; and 3) controlled learning environments (Walder, Cohen, Breiter, Dastan, Hirsch, and Leibowitz, 1969).
Educational Groups

Educational groups are usually comprised of four to twelve parents who are interested in obtaining general information about behavior modification principles. Parents are instructed in behavioral principles and their subsequent application through a variety of techniques. Hall, Axelrod, Tyler, Greif, Jones, and Roberston (1972) conducted parents groups with a "responsive teaching model." Through the use of lectures, films, and discussion, Hall instructed parents in basic behavioral principles, including counting behaviors, reliability checks, and setting up a program to alter their child's inappropriate behavior. Many investigators included group experiences as a part of their training program (Cohen, 1970; Rose, 1969). Walder, Cohen, Breiter, Daston, Hirsch, and Leibowitz (1969) were among the first investigators to adequately describe a comprehensive group training program to instruct parents in behavioral principles. They designed a program that enabled parents to become accurate observers and recorders of their child's behavior and to become aware of the contingencies that control behavior. Parents were also instructed in behavioral techniques and their application by in vivo shaping procedures using both other parents and laboratory animals as subjects. Walder also included home visits to see if the parents were applying the behavioral principles appropriately in the home.

In attempting to compare the effectiveness of a group approach versus a waiting-list control, Hirsch and Walder (1969) studied thirty white, self-referred, upper middle class mothers. The mothers were divided into two groups of fifteen; one group received group counseling in behavioral techniques while the other group constituted a waiting-list control. The treatment group was further subdivided into groups of five and ten respectively. At the end of the nine-session training program, Hirsch and Walder concluded on the basis of maternal frequency counts of child behavior and a test of behavioral principles that mothers in the treatment groups showed a significant increase in the amount of knowledge of behavior modification principles and achieved a corresponding decrease in the
in the occurrence of inappropriate behavior in their children. According to the investigators, neither group size nor maternal intelligence affected the outcome. Although specific data were not reported, the investigators noticed a slight improvement in the control group on these measures, which points to the necessity of controlling for the placebo effect, and an actual decrease in inappropriate behavior which occurs as a function of time and not as a result of the treatment program per se.

Salzinger, Feldman, and Portnoy (1970) also employed group training procedures to instruct parents in behavioral principles. Bi-weekly group sessions included lectures and a discussion of materials in an assigned textbook. Parents also had the opportunity to ask specific questions regarding problems they were having implementing the change program. Salzinger reported positive relationships between the educational background of parents and success in the training program. He concluded that some parents, especially those with poor educational backgrounds, have difficulty understanding abstract behavioral principles and need either direct reinforcement to increase parent motivation or various modeling procedures to demonstrate the appropriate use of behavior modification techniques.

One of the most complete descriptions and often copied training approach is that of Patterson, Cobb, and Ray (1972). Since the training approach in the present study was patterned after Pattersons', their procedures will be presented in some detail.

Patterson's most extensive report describes work with thirteen families, focusing on boys age six through thirteen. Two of the boys had a tentative diagnosis of brain damage and five boys were on medication to control hyperactivity. All of the boys were referred for high rates of aggressive behavior. All children with severe brain damage or psychosis were excluded from the program. All of the families had a lengthy history of agency contact including intensive psychotherapy. As such, they represented the most difficult cases in the child guidance clinic. Most of the families fell into the lower socioeconomic class. The fathers were absent from the
home in four of the thirteen cases.

The program for each family included a standard schedule of baseline, intervention, and follow-up observation sessions in the home. During the first ten to twelve weeks of intervention, all families participated in essentially the same training program. Each phase of the training program had to be completed before parents could move on to the next stage. The first phase of the program required parents to read and be tested on a programmed textbook on child management (Patterson and Guillion, 1968). In the second phase the staff trained and supervised parents in observing, recording, targeting, and tracking behavior. When parents had collected sufficient baseline data they were invited to join a parent discussion group. The group session emphasized designing specific programs and presenting data on their effectiveness. The groups were composed of three to four sets of parents and utilized a variety of training techniques including role-playing, modeling, and discussion of the appropriate use of reinforcement, time-out, and token systems. Parents were contacted each day by telephone to correct any mistakes they might be making and to reinforce them for their efforts.

Patterson included a number of behavioral observations in his study. Systematic home observations by trained observers were scheduled throughout the program to evaluate the effectiveness of the program. Six to ten baseline sessions were conducted prior to treatment. Additional home observations following the parents reading of the programmed textbook, after four and eight week of training, and at the termination of training were scheduled. One to two trained observers measured the occurrence of certain behaviors in both the target child and his sibling at various points in the baseline, intervention, and follow-up. The observers rated the aggressive behaviors and the interactions between family members that occurred as a result of that aggressive behavior with the use of a coding system comprised of twenty-nine behavior categories divided into responses and consequences (Patterson, Ray, Shaw, and Cobb, 1969). To insure observer reliability, observers were required
to go through an intensive training program. Reliability estimates averaged 83% (1969-1970) and 84% (1970-1971). To counteract the effect of observer bias, a calibrating observer blind to which families were in treatment made weekly observations of each family. Parents also provided attitudinal and observational data at various points in the training program. The parents were required to fill out a pre-and post-test adjective checklist which described their perception of their child (Patterson and Fagot, 1967). Parents also recorded the daily occurrence of several problem behaviors which had been identified previously. Finally, parents were instructed to collect data daily on a specified target behavior.

The results of the studies indicated that 1) the mean rate of targeted aggressive behaviors in the target child decreased from a baseline rate of .32 per hour to .17 at termination, a 47% reduction ($F = 4.31, p < .01$); 2) there was no significant change in nontargeted aggressive behaviors of the target child; 3) mean rates of aggressive behaviors of siblings decreased from .58 to .29, a 50% reduction. An analysis of variance ($F = 2.36, p < .10$) suggested that the treatment effects were more variable for the aggressive behaviors of the siblings. Follow-up data revealed that the reduction of aggressive behaviors in the target child was maintained but that the aggressive behaviors of the siblings was considerably above the termination level. An analysis of parents perceptions of their child revealed that parents viewed their children in a more positive light with respect to all five factors on the checklist (relaxed disposition, hostile-withdrawn, lack of aggression, schoolroom efficiency, and conduct problems). Parents observed significantly fewer overall aggressive behaviors and a significant decrease in the occurrence of the target behavior ($F = 4.80, p < .001$).

**Individual Consultation**

The second approach listed by Walder, Cohen, Breiter, Daston, Hirsch, and Leibowitz (1969) was individual consultation. Parents are instructed individually in behavior modification principles and may also be supervised in their application in either the clinic or
at home (Johnson, 1971; Madsen, 1965). Bernal (1969) concluded that parents need the one to one instruction and supervision in behavioral principles not available in a group situation. The most frequent objection to the use of individual consultation is that it requires an excessive amount of professional time in contrast to group training. Surprisingly enough, Mira (1970) reported that in 82 cases of individual treatment only 2.1 hours of professional time was needed to achieve modification while group treatment averaged 3.9 hours per parent.

Very few investigators have reported the time involved to teach parents to successfully alter a behavior in a group situation versus individual consultation. At the present time, there is little evidence to suggest that one mode of treatment might be preferable over the other, especially in regards to the expenditure of professional time.

**Controlled Learning Environments**

The third approach mentioned by Walder, controlled learning environments, is a relatively recent innovation that has shown considerable promise. Parents are usually instructed in the application of behavior modification principles in a laboratory situation with the therapist observing and directing the behavior of the parent with their children. A variety of signaling and cueing devices including hand signals, lights, walkie-talkies, and remote control have been used (Bernal, Duryee, Pruett, and Burns, 1968; O'Leary, O'Leary, and Becker, 1967; Patterson and Brodsky, 1966; Terdal and Buell, 1969; Wagner and Ora, 1970; Wahler, 1967; and Wahler, Winkel, Peterson, and Morrison, 1971).

Welsh (1966) used the "bug in the ear," a small one-way communication device, to instruct parents in the appropriate use of behavioral principles with their child. The therapist observes the parents interacting with the child through a one-way mirror. The bug in the ear enabled the therapist to speak directly to the parent and to provide immediate feedback to the parent regarding their application of the behavioral principles. Parents were instructed when to reinforce certain behaviors and when to ignore others.
Welsh concluded that the bug in the ear enables the therapist to provide immediate and specific instructions to parents who might otherwise have difficulty implementing a program on their own. Despite the promising nature of such an approach, Welsh reported that parents did not master general operant principles and that they were unable to set up subsequent programs without the aid of the therapist. This seems to point to the necessity of instructing parents in general behavioral principles in addition to direct instruction and supervision of behavioral skills in a laboratory situation.

Johnson and Brown (1969) used a red light to reinforce parents for correctly responding to their child. They concluded that signaling devices are highly reinforcing to parents and are an excellent way of shaping parental behavior. Another interesting approach (Ora, 1971; Wagner and Ora, 1970) employed experienced parents as trainers for novice parents in a laboratory situation. The use of experienced parents as "therapists" has been so successful that the staff at the institution where Ora initiated this new approach is beginning to phase out the use of professionals by placing greater reliance on experienced parents to train incoming parents in the appropriate use of behavior modification principles.

A few investigators have initially trained parents in behavior modification in a laboratory situation and then followed up the training program with home visits for further instruction and supervision (Cantrell, Cantrell, Huddleston, and Woolridge, 1969). After the initial training session in a laboratory, Patterson, McNeal, Hawkins, and Phelps (1967) instructed the mothers to prepare notes to describe the adaptive behaviors of her child and how she was reinforcing them. Patterson concluded that a combination of home and laboratory training allows the therapist to directly observe the occurrence of deviant behavior, rather than having to rely on parental reports of the child's behavior.

A few investigators, including Patterson, are beginning to use all three approaches simultaneously. Patterson first instructs parents in basic behavior modification techniques, then provides
One-to-one consultation and supervision either in the laboratory or at home. Even though a combination of approaches would appear to be an effective approach, there is little empirical evidence to support this contention at the present time. More and better controlled research comparing the effectiveness of these approaches, alone and in combination, with various types of parents and behavior problems is needed.

Parents are usually trained in either the understanding of behavioral principles on a verbal level or in actual behavioral skills. Cohen (1970), Patterson, Cobb, and Ray (1972), and Peine (1972) all emphasized the importance of parents acquiring a verbal understanding of basic behavioral principles. Some approaches stress the acquisition of behavioral terminology (Patterson, 1968; Peine, 1971) while others deemphasize this particular aspect of the training program (Fuller, 1971; Lindsley, 1966). Some parents are only expected to gain a verbal understanding of very specific techniques such as toilet training (Madsen, 1965) or token economies (Alvord, 1971).

Other investigators and therapists stress the importance of teaching behavioral skills directly to the parents. Many programs emphasize the supervision of parents in the application of general behavioral skills (Mira, 1970; Patterson, Cobb, and Ray, 1972; and Terdal and Buell, 1969) while other programs have been designed to stress a particular behavioral principle. Wahler (1969 b) trained parents in the differential attention to the child's undesirable behavior, while Patterson, McNeal, Hawkins, and Phelps (1967) and Patterson and White (1969) trained parents in the proper uses of reinforcement and time-out procedures. At the present time no definitive conclusions regarding the content of parent training programs can be reached, however, O'Dell (1974) has suggested that a certain degree of actual behavioral training is necessary to produce any measurable change in parent behavior.

A common technique of behavior modification is to instruct parents in behavior modification techniques by some form of didactic instruction. Simple advice (Allen and Harris, 1966; Hawkins, Peterson,
Schweid, and Bijou, 1966; Madsen, 1965; Patterson, 1965; Salzinger, Feldman, and Portnoy, 1970; Wahler, 1969b), lectures (Hall, Axelrod, Tyler, Greif, Jones, and Robertson, 1972), and movies (Walder, Cohen, Breiter, Daston, Hirsch, and Leibowitz, 1969) have been among the most commonly used techniques. A number of programs have included a programmed textbook as an integral part of the training program (Cohen, 1970; Lindsley, 1966; McPherson and Samuels, 1971; Mathis, 1971; Patterson, Cobb, and Ray, 1972; Rose, 1969). The two most commonly used textbooks on behavioral learning principles are Living With Children (Patterson and Guillion, 1968) and Parents Are Teachers: A Child Management Program (Becker, 1971). Patterson has found that while some change in the child's deviant behavior does occur as a result of the parents reading the programmed textbook, the changes were not significant or enduring (Patterson, 1974).

Another frequently used and quite successful technique is modeling. Either the therapist or an experienced parent models the behavioral skills that the novice parent is to acquire (Johnson and Brown, 1969; Patterson and Brodsky, 1966; Rose, 1969; Sherman and Baer, 1969; Straughan, 1964). Parents model the appropriate use of general behavioral principles and also role-play or rehearse the proper application of these skills with particular emphasis on the problem behavior of the child (Gittleman, 1965). In addition to role playing Johnson (1971) introduced the use of video tapes into his training program. Videotapes have the distinct advantage of giving parents feedback regarding their use of behavior modification techniques.

Recently, investigators have begun to use many of these techniques in combination. Rose (1969), for example, used interviews, lectures, individual instruction, home assignments, modeling, behavioral rehearsal, and contracts with parents. A study by Johnson and Brown (1969) is especially noteworthy, since it constitutes one of the few attempts to evaluate the relative efficacy of multiple training techniques including modeling, direct instructions, group discussion, and behavioral direction via signaling device. Johnson
and Brown concluded that modeling by the therapist was the most effective way of producing rapid change in the parents' behavior.

While most of the above-mentioned techniques appear promising, few studies have attempted to compare the various techniques to determine their relative effectiveness either alone or in combination. An important consideration in designing research studies should be to determine with what type of parents and problem behaviors behavioral techniques are most effective. As Patterson (1968) noted, each family or situation requires the introduction of at least one new technique.

All of the above-mentioned studies refer to methods of teaching parents behavior modification skills and their subsequent application. Other studies have attempted to utilize the same behavioral principles that parents are taught to use with children to maintain the parents' interest and cooperation in the training program. Patterson, McNeal, Hawkins, and Phelps (1967) stressed the importance of reinforcing parents in their attempts to develop behavior modification skills. The use of contingencies for parents undergoing training has received considerable attention in recent years.

Several investigators have concluded that it is necessary to utilize extrinsic reinforcement with parents to maintain their interest and cooperation in the child management program. Mira (1970) and Patterson, McNeal, Hawkins, and Phelps (1967) used fee reduction as an incentive to keep parents interested in the program. Fee manipulations are made possible through a deposit contract system in which clients pay an initial deposit for service with the understanding that the money will be returned to them upon fulfilling some requirement of the program. A number of other investigators have utilized praise either from the therapist (Toepfer, 1973) or from the group members (Johnson and Brown, 1969) to maintain maximal participation of the group. Individual consultation (Walder, Cohen, Breiter, Daston, Hirsch, and Leibowitz, 1969) and monetary reward (Peine and Munro, 1970) have also been used to insure active parent participation. Patterson, Ray, and Shaw, (1969) have used trips to the hairdresser, driving lessons, and steak dinners in both the training process and in the follow-up to
maintain the newly acquired behavior management skills.

Peine and Munro (1970) evaluated the effectiveness of a low-cost contingency management procedure in modifying parent participation behavior of attending meetings, punctuality, and turning in assignments. Sixty-six parents were divided into two traditional lecture groups and two contingency managed groups. Parents in the contingency managed group received tokens for attendance, being on time, writing out behaviors to change, gathering baseline data, and participation in the group. The number of tokens earned each week were recorded and reimbursed at the end of the session at the rate of one cent per token. Results indicated that there was a significant difference between groups in favor of the contingency managed group for punctuality and turning in assignments. Attendance did not appear to be significantly increased for the contingency managed group.

Mira (1970) required that parents collect data for a period of one week to obtain an individual consultation with a staff advisor. If parents missed three sessions before effecting any change in their child’s behavior they were dropped from the program. Along similar lines Walder, Cohen, Breiter, Daston, Hirsch, and Leibowitz (1969) required that parents complete weekly homework assignments prior to admission to the group training sessions. Walder also made individual consultation contingent on increasingly higher levels of accomplishment in the training program. Failure to complete assignments resulted in forfeiture of a previously deposited sum of money.

Eyberg and Johnson (1974) suggested that while token economies may sometimes be feasible, there are naturally occurring components in the therapeutic situation that could serve as contingent events and be less disruptive to the ongoing therapist-client interaction. These would include therapy time, telephone time, and fee reduction. Eyberg and Johnson designed an experiment to compare the effects of contingency management and order of treated problems on the cooperation of the parents and treatment outcome. Parents were assigned to one of two treatment conditions in which the easiest
or the most difficult problem was treated first and also to a second
treatment condition in which parents received either contingent
or noncontingent reinforcement. Results indicated that parents
in the contingency managed group were significantly superior to
parents in the noncontingent group on completing assignments, dealing
with more problems, and achieving higher therapist ratings on coop­
eration. There were no effects associated with the order of
treated problems. An examination of outcome measures indicated
a fairly high degree of treatment success as measured by parental
attitudes toward the children, attitudes toward the program, and
parent-collected observational data. Behavioral data taken by
observers in the home and in a standard laboratory situation revealed
a small but nonsignificant degree of success.

Contingency management techniques appear to be an effective
way of increasing and maintaining parents interest and cooperation in
the child management program. Johnson and Katz (1973) have suggested
that extrinsic reinforcement is especially popular in one-parent
families where the parent has no one to reinforce his performance.
Extrinsic reinforcement in the form of fee reduction or other
monetary reward might be a powerful incentive for parents in
lower socioeconomic classes, although at the present time there is
no research to support this contention.

Types of Parents

Basic demographic data and personal characteristics of the
parents participating in a child management program should be
routinely collected and reported to allow replication of the study
and appropriate generalization of the results. Adequate descriptions
of the parent population involved in the training program are
frequently omitted in the literature. There are even fewer studies
that related these descriptions to differential success in the train­
ing program. However, a few investigators have ventured some opinions
as to the parent variables that could account for the differential
success often experienced in the training program.

Patterson, Cobb, and Ray (1972) concluded that while parents
can be trained in child management techniques without first treat-
ing their problems, the benefits accrued from the training program may be short-lived. They found that depressed mothers and parents on the brink of divorce were most likely to slip back into their old child management patterns during the months after termination. The authors also found that mothers who were raising their children alone and in extreme poverty had more difficulty in the training program. Patterson related this to the fact that some parents, especially those with poor educational and socioeconomic backgrounds, lack even the most rudimentary child management skills.

Along similar lines, Salzinger, Feldman, and Portnoy (1970) reported that parental educational level, intelligence, and, in particular, reading ability were related to the degree of success in the training program. It should be noted that Salzinger emphasized the acquisition of verbal learning skills in his program. Studies that have minimized verbal learning and emphasized the direct teaching of behavioral skills to parents have not found any relationship between parental education, intelligence, socioeconomic level, and the degree of success in the training program (Hirsch and Walder, 1969; Mira, 1970).

Bernal, Williams, Miller, and Reagor (1972) found that although they were able to achieve some initial success with emotionally unstable divorcees, these gains were short-lived because the mother's emotional problems interfered with her successfully carrying out the program.

Few studies have actually screened prospective group members except in a gross sense. Patterson (1965) and Wiltz (1969) excluded any parent who showed obvious signs of psychopathology such as psychosis. As a result, many groups are comprised of parents with widely disparate backgrounds and needs. Both Patterson (1968) and Gelfand and Hartmann (1968) have found this variability to create some problems. Bernal, Duryee, Pruett, and Burns (1968) have suggested that individually tailored programs must be constructed within the group to deal with this variability.

While some investigators have suggested variables that might account for the differential success often experienced in parent training programs, no one has systematically investigated these
variables. Present data suggest that: 1) verbal learning approaches are not as effective with poorly educated parents; 2) direct teaching of behavioral skills seems to be appropriate for a wider range of parents; and 3) emotional problems of the parents interfere with both the acquisition and maintenance of behavioral skills. Further research is needed to empirically determine which training approach (education, individual consultation, or controlled learning environments), content (verbal versus behavioral learning, and general versus specific learning), and techniques (lectures, programmed texts, modeling, role playing, or discussion) are the most effective and with what type of parent population. Parental variables to be considered might include personality characteristics, attitudes toward child rearing, and motivation and cooperation in the training program itself.

Implementation, Cost Factors, and Follow-up

O'Dell (1974) has pointed out that issues such as instigating and maintaining parent involvement and cooperation in the training program are infrequently dealt with in the literature. Several other studies (Bernal, Duryee, Pruet, and Burns, 1968; Bernal, Williams, Miller, and Reagor, 1972; and Wagner, 1968) have stressed the need to investigate the effects that parental attributes such as cooperation and motivation could and ultimately do have on the degree of success experienced in the training program. Personality variables (Bernal, Williams, Miller, and Reagor, 1972) and educational and socioeconomic level (Patterson, Cobb, and Ray, 1972; and Salzinger, Feldman, and Portnoy, 1970) have all been tentatively linked to the differential success experienced in the training program. These variables and their effect on the therapeutic program must be systematically investigated and be considered in the eventual development of training programs that will maximize parental interest and cooperation.

Parental involvement and cooperation in the training program is highly variable and seems to be dependent on a number of factors including method of training, type and severity of the target child's
problem, educational and socioeconomic level of the parents, and whether or not the parents were referred by another agency or had voluntarily sought help. The type of trainer and the composition of the parent group involved are other factors that could account for the lack of interest and cooperation experienced in so many parents. Several investigators (Cohen, 1970; Morrey, 1970) have experienced a drop-out rate from 50% to 70%, or a failure rate of 39% to 46%. Cohen found that over 50% of the parents dropped out after the first phase of training that emphasized counting and recording skills. Lindsley (1970) reported that 70% of the parents who were instructed in behavioral learning theory did not even attempt to apply these principles at home. Both Salzinger, Feldman, and Portnoy (1970) and Mira (1970) attributed the failure of some parents to successfully carry out the programs designed for them to the parents' lack of motivation or cooperation. Salzinger concluded that parents must be reinforced for their attempts to implement the programs.

If some publishable studies are reporting a high drop-out rate and low to moderate success rate, one wonders what the drop-out rate is among studies that have not been reported. The few instances reported in the literature of high attendance rates have involved contingency management as a part of the training program. Hirsch and Walder (1969) reported almost perfect attendance when attendance became contingent on the reimbursement of a fifty dollar deposit. Eyberg and Johnson (1974), Peine (1971), and Peine and Munro (1973) have also found that monetary reimbursements, social rewards, and written contracts maximize parental attendance and participation. Peine reported an average attendance rate of 79.6% in a contingency managed group compared to 50% in a lecture-demonstration group. He also found a significant difference in punctuality (90.6% to 26.4%) between the two groups in favor of the contingency managed group.

Monetary reimbursements have proved to be an incentive to some parents, yet in some cases it seems unrealistic to expect that parents will be willing to make a fifty dollar deposit fee.
Patterson, McNeal, Hawkins, and Phelps (1967) deducted one dollar from the clinic fee for each recorded instance of their reinforcing their child's desirable behavior, while Mira (1970) made the parents' possession of their child's clinical record contingent on their attending the sessions. Both of these approaches take advantage of naturally occurring components of the therapeutic situation that can serve as contingent events.

It is ironic to note that while most behavior modification programs emphasize the importance of positively reinforcing their children for their attempts at engaging in desirable behavior, few programs utilize behavioral principles to shape the behavior of the parents in learning and applying behavior modification techniques. Behavioral skills in parents must be shaped and their successes at applying these skills must be positively reinforced less they extinguish.

Another important consideration in evaluating the efficiency and effectiveness of training parents in behavior modification techniques is the time and expense involved. Most studies reported in the literature failed to report cost factors especially in terms of the professional time involved.

Patterson and his associates have reported a wide range of professional time expenditures ranging from 150 minutes (Patterson, Shaw, and Ebner, 1969) to 133 hours (Patterson, Ray, and Shaw, 1969). The average time expenditure appears to be from 25 to 30 hours per family. Mira (1970) reported that parents needed 3.9 hours of professional time to successfully modify their child's behavior in a group situation compared to only 2.1 hours in individual consultation. Some parents needed as few as two sessions; others needed as many as 24. A number of other investigators have also reported a minimal time expenditure on the part of the professionals to teach parents to modify their child's behavior: 2 hours (Tahmisian and McReynolds, 1971); 6 hours (Zlutnick, 1972); 11 hours (Eyberg and Johnson, 1974).

Follow-up observations to assess the durability and generalization of treatment effects should be an integral part of any research
study, yet follow-up data is rarely reported in the literature. Those investigators that did report follow-up data usually indicated that the behavioral improvements were maintained during the follow-up period ranging from two weeks to three years (Patterson, McNeal, Hawkins, and Phelps, 1967; Lovibond, 1964). Most investigators either telephoned or corresponded with the parents to determine the durability of the treatment effects. Patterson, Ray, and Shaw (1969) were one of the few investigators who actually returned to the home to obtain follow-up data.

An important part of any follow-up, especially with parent training, should be to determine if the parents were able to generalize the behavioral principles learned in the training sessions to problems other than those that they had specifically worked on during the sessions. Back in 1962, Rachman predicted that generality of effects would be one of the most important by-products of training parents in behavior modification techniques. To date, few studies have been able to successfully demonstrate that the parents are able to generalize the treatment effects to nontargeted behaviors, behavior problems of siblings, and situations outside of the home.

Wahler (1969b) found that while parents can effectively modify the child's deviant behavior at home, the effects do not generalize to other settings such as school. She concluded that behavioral improvements do not generalize across situations unless environmental support is provided to maintain it. If treatment effects are to generalize to other situations such as school, the teachers and other reinforcing agents must be included in the therapeutic program (Patterson, 1974).

In Patterson's initial studies (1968), he reported that treatment effects did not seem to generalize to nontargeted deviant behavior in either the target child or his siblings (Patterson and Reid, 1973). In 1974, Patterson again reported that parents did not seem to apply behavioral techniques to problem behaviors other than the ones they were specifically trained for. Patterson refers to the other problems parents are experiencing collectively as nontargeted behaviors. An important consideration in determining
if treatment effects had generalized to these behaviors, is what these behaviors are and what are their rates of occurrence. Many problem behaviors such as running away or shoplifting occur rather infrequently. In such situations parents need a longer period of time in which to apply behavioral principles before any appreciable change in behavior is to be expected. It should be noted that parents in Patterson's program worked on a cluster of problems and not just one problem. Restricting a parent in the use of behavioral principles to just one problem in that cluster may result in a greater degree of generalization since parents still have a number of other serious problems to deal with. Failure to generalize behavioral principles to other problem behaviors, could be interpreted as implying that all of the serious problems have been resolved and the remaining problems, being less serious, do not warrant the parents' attention. This may be true in families of lower socioeconomic status who are willing to tolerate more deviant behavior. Parents might normally only generalize behavioral techniques to problem behaviors which they view as serious. Their failure to generalize behavioral principles might be viewed as a lack of concern for these problems rather than an inability to apply these techniques. An important part of further research might be to have parents rate each of the nontargeted behaviors with respect to the severity of the problem and whether they feel it is worth their effort to change it.

Patterson has subsequently concluded that treatment failure may be in part a problem of matching appropriate criterion measures to the problem. To support this contention, Reid and Hendriks (1973) have shown that even during treatment, 57% of low base rate problem cases resulted in "failure" as compared to 18% of social aggression cases which occurred at a much higher rate.

Using the same basic program as in earlier studies, Patterson (1974) did find that mean rates of aggressive behaviors in both the target child and his siblings decreased as a result of treatment, although this decrease in deviant behavior was not maintained for the siblings in the follow-up period. He also found that parents
did not generalize their knowledge of behavioral principles to the nontargeted behaviors of the target child. Patterson concluded that the safest means of assuring maximum generality and persistence of treatment effects would be to program them. In a 1975 study (Arnold, Levine, and Patterson) parents were supervised in applying the behavior modification techniques to the sibling of the target child, even though treatment was primarily aimed at one child. The authors did not indicate how the supervision of the parents with the sibling was accomplished or how long it took. Nevertheless, they did report that parents were able to generalize behavioral techniques to the siblings and that the reduction in the deviant behavior of the siblings was maintained after six months.

Research Techniques

O'Dell (1974) has suggested that all research in parent training should meet the following criteria: 1) basic demographic information on the parent and the child should be reported to allow appropriate generalization of the results; 2) descriptions of the child's target behavior, parental behaviors that produce changes in the child, and the experimenter's behavior that lead to changes in the parents; 3) adequate descriptions of the training procedures including training approaches, content, and special techniques; 4) the design should include baseline data and be set up so that the results can be attributed to the manipulation of a particular variable; 5) measurements should stress observable behavior and provide reliability estimates of those measures; 6) evaluations should emphasize the acquisition, generalization, and maintenance of behavior changes; 7) cost factors in terms of time expenditure should be reported; and 8) the report should emphasize the social importance of the study.

In a review of the literature, O'Dell found that only four studies met all of the above mentioned criteria (Hawkins, Peterson, Schweid, and Bijou, 1966; Patterson and Brodsky, 1966; Patterson, Cobb, and Ray, 1972; and Patterson, McNeal, Hawkins, and Phelps, 1967). A few other studies (Herbert and Baer, 1972; Peine, 1972; Wahler, 1969a; and Wiltz, 1969) met all but one or two of the
criteria. Lack of adequate descriptions of the training process, data on parent behavior changes, and measures of generality and durability were among the most frequent criticisms of the remaining studies. Berkowitz and Graziano (1972) also concluded that the literature in training parents as behavior therapists can be criticized for design limitations such as inadequate controls and measurement, limited follow-ups, and poor evaluative techniques, as well as a general lack of detail on training methods and parent and child behavior changes. In another review of the literature (44 studies) Johnson and Katz (1973) found that 17 lacked adequate descriptions of the parent training operations, 30 studies reported no reliability estimates for the dependent variable, 23 lacked follow-ups, and 37 failed to give any estimate of the time expenditure.

The majority of the studies reported in the literature are either case studies of one child or small groups of children with similar problems or large scale parent training programs. Many of the case studies reviewed did not even meet the basic criteria set forth by Gelfand and Hartmann (1968). They suggested that all case studies provide: 1) adequate baseline measures of the occurrence of the problem behavior over a period of time long enough to provide reliable rate information; 2) the data should be collected rigorously and systematically rather than relying on the retrospective report of parents or teachers; 3) the experimenter should provide an adequate description of the treatment program, including the number of treatment sessions, descriptions of the spacing over time, and the total time span of the intervention; 4) if additional contacts are made with teachers they should be included in the description. Using this general outline to evaluate research in parent training, Pawlicki (1970) found that 30% of the studies reviewed between 1965 and 1969 (N = 54) did not report a baseline of the target behavior, 85% did not include a control group, and 51% failed to demonstrate behavioral control over the target behavior. Pawlicki also noted that very few studies (4%) employed unbiased observers in the sense that they were unaware of changes in reinforce-
ment contingencies or the treatment of the group being observed. Although Pawlicki reported that 56% of the studies reviewed included a follow-up, few of the studies described the follow-up procedures adequately.

All of the above cited authors have criticized the research in training parents as behavior therapists for 1) lack of adequate sampling procedures; 2) inadequate descriptions of the training program; 3) unreliable or inadequate measurement techniques; and 4) poorly designed studies that do not allow for the demonstration of behavioral control over the target behavior. All of the authors also point to the need for follow-up to assess the generalization and durability of treatment effects, topics which have already been covered in the review of the literature.

Only a few studies even attempted to collect any demographic data. Patterson, Cobb, and Ray (1972) did collect data on the age, number of children, referral problem, and occupation and presence or absence of the father. Peine and Munro (1970) also collected data on parents' education, income, and marital status. Most studies relied on volunteers as subjects, although some paid the parents to participate in the study. Some studies included only parents who had a child with a particular diagnosis, such as mental retardation or brain damage, whereas other worked with mothers only. Restricting both the parent population and the child's problems presents serious problems for generalization of the results. The collecting of basic demographic data will not entirely solve this problem of generalization, but should shed some light on the effectiveness of different behavior modification approaches and techniques with different parents and childhood problems.

Only a few of the studies reviewed described the content of their training program adequately enough to allow replication (Patterson, Cobb, and Ray, 1972). Many studies relied on a narrative account of the training program (Johnson and Brown, 1969) without operationalizing the procedures used to bring about behavioral control.

Zeilberger, Samper, and Sloane (1968) listed the written
instructions that were given to each parent. Some investigators reported pre-test and post-test scores of the parents' ability to count behaviors from video tapes (Cohen, 1970) or scores on a test of behavioral principles (Patterson, Cobb, and Ray, 1972). Adequate descriptions of the training program including the content, techniques employed, and length and spacing of the session is essential if studies are to be replicated in the future.

Inadequate or unreliable measuring instruments is another frequent criticism of research studies teaching parents to modify their child's behavior. Of the studies that have attempted to objectively measure treatment effects, paper and pencil tests were the most popular. Salzinger, Feldman, and Portnoy (1970) measured the parents' reading level while Patterson, Cobb, and Ray (1972) took measures of the parents' level of anxiety and their attitude toward their child's behavior change. Numerous studies (Cohen, 1970; Peine, 1971; Pumroy and Pumroy, 1965; and Salzinger, Feldman, and Portnoy, 1970) have included a written measure of the parents' knowledge of behavior modification principles.

The most frequent measure of behavior change involves collecting data on the target problem. Parents are usually trained to record their child's inappropriate behaviors in the home (Allen and Harris, 1966; Conger, 1970; Johnson, 1971). They recorded either the absolute frequency of the target behaviors or the duration of these behaviors.

Recently some investigators have begun to record the frequency and quality of parent-child interactions during either a structured laboratory situation (Johnson and Brown, 1969; Eyberg and Johnson, 1974; Wahler, 1969; Wagner and Ora, 1970) or in the home situation (Patterson, Cobb, and Ray, 1972). Wahler (1969a) recorded both desirable and undesirable aspects of the target child's behavior as well as the differential attention of the parents to these behaviors. Hawkins, Peterson, Schweid, and Bijou (1966) recorded the frequency of the parents' verbalizations to the child and the child's inappropriate behavior. Both Hawkins and Wahler demonstrated that the deviant behavior of the child was directly related to the
attention given to the child by the parents. In another series of studies evaluating mother-child interaction patterns (Nash, Terdal, and Anderson, 1973; Cone and Sloop, 1971) the investigators found that mothers were able to increase the rate of compliance in their child by reinforcing compliance and ignoring noncompliance. The authors suggested that if parents can reliably demonstrate the use of behavior modification techniques in the laboratory situation, this behavior should generalize to other settings.

Those investigators that employed observations by raters other than parent usually trained two more observers to collect data on the occurrence or nonoccurrence of the target behavior and parent-child interaction. Reliability estimates have often exceeded 90% (Gardner, Pearson, Bercovici, and Bricker, 1968; Zeilberger, Samper, and Sloane, 1968); however, the agreement between observers and parents ranged from 20% to 74% and did not improve over time (Herbert and Baer, 1972). Many investigators (Allen and Harris, 1966; Herbert and Baer, 1972) have suggested that parents are usually poor observers and recorders and it is important to obtain estimates of their accuracy especially when they are the primary data collectors. Peine (1972), on the other hand, found that parents were able to accurately observe and record discrete patterns of behavior and Hall, Cristler, Cranston, and Tucker (1970) found that it was possible to teach parents sophisticated measurement techniques including interrater reliabilities. A few investigators (Eyberg and Johnson, 1974; Patterson, 1974) have used multiple criteria including parent ratings, parent frequency counts, and frequency counts by objective observers in both the home and standard situation.

While the observation of deviant behavior and parent-child interactions may be an improvement over pencil-and-paper techniques and recording by parents, Johnson and Katz (1973) have pointed out that most "objective observers" are in fact biased because they are aware of which families were in treatment. Johnson and Katz have also pointed out that "being observed" constitutes a stimulus for behavior change. The effect of being observed, especially in the home situation as opposed to a one-way mirror in the laboratory
situation, should be assessed to determine if being observed does affect the occurrence or nonoccurrence of certain behaviors or parent-child interactions.

Eyberg and Johnson (1974) reported that the home observations in their study did not show the same degree of behavioral change evidenced by other measures. They concluded that the home observations did not directly assess the problems being treated since many of the behaviors, such as bedtime problems, did not occur during the observation periods. Other studies (Lobitz and Johnson, 1974) have demonstrated that parents are able to manipulate their children so that they appear to be more or less deviant during the observation period. Many parents and children may be able to refrain from engaging in inappropriate behaviors, especially if these behaviors are not severe, for a short period of time to create a socially acceptable picture of themselves.

Most studies have described the child's target behavior in observable terms, yet few studies have classified the child's problem relative to a standard set of behavioral criteria. Tavoramina (1975) rated children using the Missouri Behavior Problem Checklist (Sines, Pauker, Sines, and Owens, 1969). A few other investigators, notably Patterson and his associates, have used Beckers BiPolar Adjective Checklist to rate parents' reactions to their problem child (Patterson, Cobb, and Ray, 1972).

While most studies have provided an adequate description of the child's behavior, few studies have attempted to delineate behaviors in either the parents or the therapists that are responsible for producing changes in the child. Descriptions of parent behaviors are usually defined in terms of their interactions with their child (Herbert and Baer, 1972; Patterson, Cobb, and Ray, 1972) while behavior descriptions of the therapists are virtually non-existent.

Research studies in training parents as behavior therapist have typically used either a single-subject or group design. Single-subject studies usually employ a baseline to treatment (AB) or (ABA) reversal, baseline to treatment and back to baseline design.
Some investigators (Madsen, 1965) report successful results using a single-subject design, yet fail to empirically verify their claims. Other investigators (Barrett, 1969) report detailed descriptions of the training program and include objective records of the target behavior.

Many of the single-subject studies reviewed used a reversal design. Reversal procedures are necessary to determine if the behavior is under the control of the parents or therapist and not due to some extraneous variable. While reversal designs have reliably demonstrated behavioral control over the target problem, many parents are unwilling to temporarily reverse treatment procedures. In cases like this Gelfand and Hartmann (1968) suggest the use of: 1) yoked controls; 2) independently manipulating subunits of the target behavior; 3) altering reinforcement schedules; 4) reversing contingencies for limited aspects of the target behavior under limited stimulus conditions; and 5) using multiple baseline designs. Multiple baseline studies are used to determine the effects of a contingency on several types of behaviors at once (Hall, Cristler, Cranston, and Tucker, 1970).

Other investigators have employed behavior modification techniques with several cases at once in a group setting. Most of these studies were reviewed in an earlier section. Both AB and ABA designs have demonstrated behavioral control with single subjects; nevertheless, these results can not be generalized to other subjects even with similar problems since the samples were so small initially. In an attempt to generalize treatment results, some investigators have attempted to manipulate a particular variable with a large group of parents. Wiltz (1970) compared a group treatment versus a no-treatment control. He reported that the children in the experimental group showed an increase of 30%. Walter and Gilmore (1973) also concluded that group counseling versus placebo treatment leads to significant reductions in targeted behaviors. They also reported that the change in the target behavior was due to the treatment procedure and not due to either therapist contact or the parents expectancy of improvement. In a comparison of four
types of parent training groups, Johnson (1971) found that groups that focused on mothers as opposed to children and actual behaviors versus feeling were the most successful.

Many of the designs reported in the literature did not sufficiently isolate the variables that they claimed accounted for the behavioral change. For example, Johnson and Katz (1973) reported that variables such as history, maturation, reactive measurements, and instrument decay were often confounded with treatment conditions. It may well be that these variables and not the treatment per se was responsible for changes in the target behavior.

A review of the literature has shown that parents can be taught to successfully modify a wide range of problem behaviors in their children; nevertheless, more and better designed research is needed in this area. Areas in need of investigation are: 1) the identification of critical variables in the parent training program including a comparative analysis of different training procedures and their ability to produce results relative to other approaches and to determine which techniques are most effective with which types of parents and childhood problems; 2) the development of possible predictive measures of the extent of parental success; 3) the development of more precise measures of parent and child behavior changes; and 4) variables that account for the acquisition, generalization, and maintenance of treatment effects.
CHAPTER III
METHOD

Subjects

Subjects for this study were 22 parents who responded to a letter sent out by the group leader through four elementary schools in the Grand Forks Public School System. Of the parents attending the child management classes, nine attended as a couple, twelve as mother only, and one as father only. The parents ranged in age from 26 to 53 with a mean age of 32.6. The educational level of the parents ranged from 12 to 20 years with a mean of 14.18. The parents' income level ranged from $5,880 to $20,000 with a mean of $14,931.

The parents selected one child (target child) to work with throughout the course. The target children ranged in age from two to thirteen, with a mean age of 7.81. Their mean position in their family was 1.77 in a family with an average of 2.94 children. Seventeen of the target children were male and five were female. All of the children had mild behavioral problems and only two families had previously sought help for the problems of their child. No children with previous diagnoses of mental retardation, brain damage, or severe emotional disturbance were included in the study. Although no formal screening was done, all of the parents appeared to be of at least normal intelligence and none seemed to be suffering from a severe emotional disorder.

Multiple t-tests were computed and indicated that there were no significant differences between the general and specific groups on any of the following demographic variables: age of parents, age of child, socioeconomic status, number of children in the family or the position of the target child. This information is summarized in Table 1.

Multiple t-tests were computed and indicated that there were no
TABLE 1
MEAN AND STANDARD DEVIATION OF THE DEMOGRAPHIC VARIABLES
FOR THE GENERAL AND SPECIFIC GROUPS (N=22)

<table>
<thead>
<tr>
<th>Demographic Variable</th>
<th>General</th>
<th></th>
<th>Specific</th>
<th></th>
<th>Row Marginals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X</td>
<td>S.D.</td>
<td>X</td>
<td>S.D.</td>
<td></td>
</tr>
<tr>
<td>Age of parents</td>
<td>33.35</td>
<td>6.89</td>
<td>31.85</td>
<td>2.53</td>
<td>32.60</td>
</tr>
<tr>
<td>Age of child</td>
<td>7.18</td>
<td>3.15</td>
<td>8.45</td>
<td>2.06</td>
<td>7.81</td>
</tr>
<tr>
<td>Socioeconomic level</td>
<td>2.45</td>
<td>1.21</td>
<td>2.72</td>
<td>1.19</td>
<td>2.58</td>
</tr>
<tr>
<td>Number of children in the family</td>
<td>3.18</td>
<td>1.16</td>
<td>2.72</td>
<td>.78</td>
<td>2.94</td>
</tr>
<tr>
<td>Position of the target child</td>
<td>2.00</td>
<td>.63</td>
<td>1.54</td>
<td>.52</td>
<td>1.77</td>
</tr>
</tbody>
</table>

significant differences on any of these variables between either
the Monday or Wednesday, and the Tuesday or Thursday sections
when they were analyzed separately (p > .05). Multiple t-tests
comparing the two groups on the Hereford Parent Attitude Survey
also failed to reveal any significant differences between the two
groups, either on the total score or on any of the five factors:
confidence, acceptance, understanding, trust, or causation, (p > .05).
In addition, there were no significant differences between the Monday
or Wednesday, and the Tuesday or Thursday sections when they were
analyzed separately (p > .05).

Instruments

The Hereford Parent Attitude Survey

The Hereford Parent Attitude Survey (Hereford, 1963) is a
self-report instrument that measures parental attitudes in five
areas: confidence in the parental role, causation of the child's
behavior, acceptance of the child's behavior and feelings, mutual
trust, and mutual understanding. The scale was originally construct-
ed as a part of a research project involving the effect of parent
discussion groups on parental attitudes and behavioral change.
The study was conducted over a four year period (1955-1960) in Austin, Texas. Hereford also investigated the effect of age, sex, and socioeconomic status on parental attitudes. He found that the age of the child (7-12 or above) was significantly related to parental attitudes as measured by three scales (acceptance, trust, and causation). Younger children were rated higher on all three scales. Hereford also found a positive relationship between socioeconomic status and attitude scores. Sex of the child had no relationship to attitudes but sex of the parents proved to be related to attitudes on all scales except confidence, with the mothers rating higher on the scales than the fathers.

Each item on the survey is rated on a five point scale from strongly agree to strongly disagree. The algebraic sum of the item scores in each area serves as the score for the attitude in that area. The scale takes approximately fifteen to twenty minutes to complete. Norms are available for each of the five scales for 363 parents who participated in the experimental group and for 557 parents who made up the control and standarization group.

The reliability of the five scales making up the survey was computed by means of the split-half method. They yielded coefficients ranging from .68 on acceptance to .86 on understanding (Hereford, 1963).

The Behavior Problem Checklist

The Behavior Problem Checklist (Quay and Peterson, 1967) is a factor analytically derived three point scale for 55 relatively frequently occurring problem behaviors in children and adolescents. The items on the checklist are easily observed and satisfactory ratings have been obtained from parents, teachers, correctional personnel, psychiatric nurses and aides, and clinical psychologists. The checklist measures problem behaviors in the following areas: conduct disorder (psychopathy, and unsocialized aggression), personality disorder (neuroticism, and anxious-withdrawn), inadequacy-immaturity, and subcultural (socialized) delinquency. Published norms are available for public school children (kindergarten through sixth), hospitalized adolescents, and institutionalized
Peterson (1961) reports that inter-teacher reliabilities with 126 kindergarten children were .77 for conduct problems and .75 for personality problems. These ratings are similar to those of Quay, Spraque, Shulman, and Miller (1966), who obtained ratings of children in a child guidance clinic (.78 for conduct problems, and .67 for personality problems). In another study rating seventh and eighth graders, Quay and Quay (1965) found inter-teacher reliabilities to be lower (.58 conduct and .31 personality) for the seventh and eighth graders respectively (.71 and .22). It should be noted that these teachers average only one hour of contact time with the students per day. Quay and Peterson (1967) have also reported ratings of 428 males (kindergarten and first grade) and 378 females over a one year period by two different teachers. The ratings for the males were .52 (conduct), .38 (personality), .35 (immaturity), and .21 (socialized delinquency). The female ratings were .50, .28, .32, and .40 respectively.

The amount of time spent with each child might account for some of the discrepancy ratings between parents and teachers. Quay, Spraque, Shulman, and Miller (1966) found that mother-teacher correlations were .33 and .41 (conduct and personality problems) while father-teacher correlations were .23 and .32 respectively. Ratings of institutionalized delinquent boys over a fifteen month period by different individuals are also low (.33 personality and .31 inadequacy-immaturity).

Although the inter-rater correlational data available on the Behavior Problem Checklist is quite variable, ratings by mothers and fathers of the same child and ratings by teachers who see the child under similar conditions are more consistent (Quay, Spraque, Shulman, and Miller, 1966; Peterson, 1961).

Speer (1971) reports one of the few studies in the literature regarding the validity of the Behavior Problem Checklist. He found that parent ratings of child patients clearly differentiated them from their siblings and from nonclinic children on three of the scales (conduct disorder, personality disorder, and inadequacy-
immaturity).

The Two Factor Index of Social Position

The two factor index of social position (Hollingshead, 1958) is a scale which rates persons according to educational and occupational role by a matching to sample technique. The index of social position for each individual is calculated by multiplying the occupational scale value by its factor weight and adding it to the scale value of education multiplied by its factor weight.

Attitude Toward Therapy Inventory

The attitude Toward Therapy Inventory (Eyberg and Johnson, 1974) was constructed to assess the parental satisfaction with the child management classes. The inventory was modified slightly to meet the needs of this study.

Measures of Parental Cooperation

Data were collected on two measures of parental cooperation, attendance and completion of assigned data collection.

Observation Data

Parents were required to collect baseline data on three problem behaviors and to select one of the problems to work on for the remainder of the program. Baseline data were collected for a period of one or two weeks depending on the occurrence of the problem behavior. Most parents recorded the frequency of the problem behavior, although a few parents chose to record the duration of the problem behavior. Parents collected weekly data on the target behavior for the remainder of the program (four weeks).

Therapist

The leader for the child management classes was fourth year graduate student in clinical psychology. She had previous experience with behavior modification techniques, both in individual therapy and in parent discussion groups. The leader did not have any conscious biases regarding which treatment approach might be more effective.

Procedure
The purpose of this study was to compare two different child management approaches (one general and one more specific) and to determine which approach was more effective relative to the other.

One week prior to the beginning of the sessions the therapist visited each of the families. The purpose of this visit was to explain the research program and to have the parents fill out the pretest measures. All parents filled out basic demographic data, a Parent Attitude Survey, and a Behavior Problem Checklist. The parents selected one of the four groups (Monday, Tuesday, Wednesday, or Thursday) to begin the following week. The sessions were scheduled to meet from 7:30 to 9:30 p.m. in a classroom on the campus of the University of North Dakota. The therapist attempted to arrange each group so that there were an equal number of people in each group and that the number of single and double set parents was approximately equal in each group. The type of treatment administered to each group was determined by a flip of a coin. Parents who attended the Monday and Wednesday sessions were in the General group while parents in the Tuesday and Thursday sessions were in the Specific group. The groups were scheduled for a five week period with each of the sessions lasting approximately two hours. At the end of the five weeks, the parents filled out the posttest measures. They completed the Attitude Toward Therapy Inventory, and a brief test of behavior modification terminology and its appropriate use, during the last session. The parents were instructed to continue recording data on the target behavior for one more week, resulting in a total data collection period of four weeks. They returned this data along with the posttest form of the Behavior Problem Checklist, and a questionnaire designed to assess whether parents had generalized the behavior modification principles to other areas, by mail the following week.

Treatment

Both treatment approaches were primarily educational in nature and focused on the acquisition and subsequent application of behavior modification principles. The leader based the lectures of both
groups on ABC'S for Parents (Rettig, 1973) and included additional examples of behavior modification techniques from Changing Children's Behavior (Krumboltz and Krumboltz, 1972) for the general approach group.

During the first session, all parents were introduced to basic theory in behavior modification. Parents were informed that behavior modification is the application of established learning principles to every day problems. They were told that during the course, they would be taught these principles so that they would be able to set up and implement a program in their own home. Parents were informed that by the end of the sessions they would have the knowledge of behavior modification techniques to 1) strengthen and maintain behavior that is appropriate, 2) weaken and eliminate inappropriate behavior, and 3) teach or shape new behaviors. Parents in the general group were informed that the focus of the sessions would be on the acquisition and application of general behavior modification principles and that it would be up to the parents to apply these principles to problems that they were having with their child. They were told that it is important for parents to have a sound understanding in behavior modification techniques, so that they can set up programs on their own in the future without the aid of the leader. Parents in the specific group were told that most parents need to be supervised and monitored in the application of behavior modification principles; therefore, the focus of this class would be to give brief lectures on behavior modification principles and to see how these principles could be applied to their child. Parents were informed that once they were able to modify a specific problem, they would be able to generalize these techniques to other problem areas.

Prior to the first session, all parents had selected one child in their family whom they wanted to work with during the sessions. Parents then prepared a behavioral analysis in terms of behavior excesses (inappropriate behavior that occurred too frequently) and behavioral deficits (appropriate behavior that rarely occurred) for the target child. From the list of behavioral excesses and deficits,
Parents selected three target behaviors which they would like to work on during the course. Parents were encouraged to select behaviors that could be operationally defined, were simple to count, and lent themselves to simple reinforcement techniques and or time-out procedures. The final decision as to which problem to work on was left up to the parent.

All parents received a brief lecture on methods of observing and counting behavior and the importance of operationally defining behaviors. Once the three target behaviors had been selected, all parents were instructed to give an operational definition of that behavior and to decide when and how they would count that behavior. Parents were instructed to count every occurrence of the problem behavior if the behavior occurred rather infrequently (such as bedwetting) or to observe and record the target behavior for a specified time each day if the behavior occurred at a high rate. Parents were also given a brief lecture on reinforcement during the first session and were instructed to make a list of reinforcers that might be used with their child.

In order to explain how to observe, define, and count a target behavior, the leader went through a hypothetical example. Each of the parents filled out a worksheet for their child consisting of the following: a list of behavior excesses and deficits, selecting three target behaviors from that list, operationally defining those behaviors, setting tentative goals for those behaviors, deciding how and when the behaviors will be observed and counted, and surveying the reinforcers. All of the parents were carefully observed and given assistance, if necessary, during this phase of the program. All of the parents were instructed to collect baseline data on the three target behaviors during the following week and bring this data to the next session.

During the second session, all parents received basically the same lecture, except that the examples used to illustrate behavioral principles were general in nature in the general approach group, while those in the specific group were directly related to the target problem that the parents were working on. All parents saw
a movie on basic behavioral techniques entitled *One Step at a Time: An Introduction to Behavior Modification* (Franzini, L., CRM Educational Films). The focus of the second session was on the basic understanding of the following intervention procedures: positive reinforcement, punishment, time-out, response cost, negative reinforcement, extinction, Premack principle, and the reinforcement of incompatible responses.

Each of the parents in conjunction with the leader devised a treatment plan for one of the target behaviors selected from the baseline data collected the preceding week. Most of the programs were set up in the form of a contract. All of the parents incorporated positive reinforcement into the program, usually in the form of tokens, activities, and praise. A few parents used extinction, especially with negative responses and tantrum behavior, in setting up their programs. Some of the parents felt that it was necessary to include a mild form of punishment for inappropriate behavior (time-out or response cost) in their program in addition to the reinforcement aspect of the program. All parents received a handout on points to remember in developing an intervention, how to set up a contract (including an example), and how to use time-out. Once again, all of the parents were supervised and given assistance in setting up an intervention program.

The third session focused in more depth on behavioral techniques to strengthen and maintain behavior (positive reinforcement, negative reinforcement, the Premack principle, continuous and intermittent reinforcement).

During the fourth session, parents were given more information on techniques to weaken and eliminate behavior (satiation, extinction, the rewarding of incompatible behaviors, time-out, and response cost).

The fifth session was devoted to teaching and shaping new behaviors through the use of cueing, modeling, and successive approximations.

In the last three session, the lectures and group discussion in the General group focused on the general approach of behavioral
techniques. The leader included a variety of examples of problem behaviors with children, adolescents, and adults, illustrating the effectiveness of behavioral techniques. At various points in the lectures the leader would ask parents how they might apply a particular behavioral principle to a problem she had just illustrated. Parents were also encouraged to give general examples of how they might apply behavioral principles. If parents asked questions pertaining solely to the problems they were having with their child, they were answered briefly but discussion was not encouraged.

At the end of the sessions, the leader collected the data on the target behaviors and discussed the program with the parents. In some cases it was necessary to give assistance or to modify the program.

Both the lectures and group discussions in the specific groups focused on the target problems that the parents were working on in class. When a particular technique was introduced, the leader illustrated it with examples of the target behaviors that the parents were working on. Parents were also given the opportunity to present their data to the group and to receive assistance from the group members in implementing the program. The majority of the time in the specific groups was spent on the direct application of behavior modification principles to the problems that the parents were attempting to modify.

Brief lectures, group discussion, occasional modeling by the group leader, movies, and handouts were an integral part of the program for both groups.
CHAPTER IV

RESULTS

The total sample of 22 parents was reduced to approximately 16 after the second session when six of the parents dropped out of the groups. This reduction made statistical comparisons more difficult; therefore, the statistical comparisons will be supplemented by clinical data in the form of individual case studies to shed additional light on the differences between the General and Specific approaches.

Four outcome measures and two measures of parental cooperation were obtained and used in the data analyses: Behavior Problem Checklist scores, Target Behavior Reduction scores, Attitude Toward Therapy scores, attempts at generalization, attendance and completion of assigned data. Two-tailed t-tests were employed to check for differential treatment effects as a function of group assignment. The mean, standard deviations, and range of Behavior Problem Checklist, and Target Behavior Reduction pretest and posttest scores are presented in Table 2.

Behavior Problem Checklist

Multiple t-tests were computed on the Behavior Problem Checklist pretest, posttest, and change scores to determine the effect of the treatment condition (general versus specific group) on exposure to child management techniques. The Behavior Problem Checklist change scores represented the difference between a subject's raw score on the pretest and his raw score on the posttest. A previous analysis failed to reveal any significant pretest difference between the general and specific group means (13.27 and 13.00 respectively) on the Behavior Problem Checklist total score \((t = -.12, d.f. = 20, p > .10)\). Of the parents who completed the program, those in the General group demonstrated a drop from 13.33 to 12.16, while those in the Specific group showed a drop
### TABLE 2
MEAN, STANDARD DEVIATION, AND RANGE OF BEHAVIOR PROBLEM CHECKLIST, AND TARGET BEHAVIOR REDUCTION PRETEST AND POSTTEST SCORES

<table>
<thead>
<tr>
<th>Outcome measures</th>
<th>General Group</th>
<th>Specific Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( \bar{X} )</td>
<td>S.D.</td>
</tr>
<tr>
<td>Behavior Problem Checklist Pretest Scores</td>
<td>13.33</td>
<td>6.53</td>
</tr>
<tr>
<td>Behavior Problem Checklist Posttest Scores</td>
<td>12.16</td>
<td>6.91</td>
</tr>
<tr>
<td>Target Behavior Reduction Pretest Scores</td>
<td>3.65</td>
<td>1.72</td>
</tr>
<tr>
<td>Target Behavior Reduction Posttest Scores</td>
<td>1.44</td>
<td>1.25</td>
</tr>
</tbody>
</table>

From 10.33 to 4.83. While both the General and Specific approaches demonstrated a reduction in the mean number of items checked on the Behavior Problem Checklist (1.17 and 5.50 respectively) the difference between the pre- and posttest scores (see Table 2) for each group was not significant (General group: \( t = .79, \) d.f. = 5, \( p > .10; \) Specific group: \( t = 2.40, \) d.f. = 5, \( p > .05 \)). The range of the problems checked on the pretest form, was four to twenty-two in the General group as compared to two to twenty-four in the Specific group. The number of items checked on the posttest form ranged from five to twenty-five, and zero to eleven respectively.

In order to examine the data for differential treatment effects, multiple t-tests were computed on the change scores for the two groups. No significant treatment effects was found for the total Behavior Problem Checklist score (\( t = 1.59, \) d.f. = 10, \( p > .05 \)).

An interesting phenomenon occurred in those parents that attended fewer than 60% of the sessions, namely that they checked a significantly greater number of items (62%) on the pretest form of the Behavior Problem Checklist (21.16 items compared to 13.25 in those parents that attended 60% or more of the sessions).
Target Behavior Reduction

The percentage of reduction of each target behavior was computed by averaging the rate of occurrence over the last two weeks of data collection and subtracting this average from the baseline rate. Comparing baseline information to posttest data, the average percentage of reduction for parents in the General group was 60.40 and 59.80 for parents in the Specific group. The percentage of reduction ranged from 23% to 89%, and -15% to 100% respectively. Both groups reported a reduction in the occurrence of the target behavior (General group: t = 3.62, d.f. = 6, p < .02; Specific group: t = 4.02, d.f. = 5, p < .01). Although there was little difference in the means of the two groups, there was a difference in their variances (Standard Deviations: 26.80, General group and 40.30, Specific group), which produced a significant t-test (t = 3.17, d.f. = 11, p < .01). It is the investigators opinion that there is no true difference between the two groups in the percentage of target behavior reduction and that the significant t-test is a statistical artifact which can be partially accounted for by the presence of the two extreme scores (-15% and 100%) in the Specific group.

Attitude Toward Therapy

Responses to each item on the eleven item inventory were assigned rating scores from one (indicating dissatisfaction or deterioration in condition) to five (indicating maximum satisfaction or improvement). Responses were analyzed separately for the three items relating to satisfaction with the therapist and the two items regarding the other group members. The average rating on the entire inventory was 3.92 for the General group and 4.30 for the Specific group, which is equivalent to somewhat improved on the rating scale. The Specific group expressed greater satisfaction with both the therapist and other group members (mean rating equaled 4.61 and 3.83 respectively for the Specific group and 4.14 and 3.07 respectively for the General group). However, the results of the t-tests indicated that the differences were not significant (t = -1.51, d.f. = 11, p > .10) nor were any
significant differences found in a separate analysis of therapist and member satisfaction (t = -1.28, d.f. = 11, p > .10; t = -1.46, d.f. = 11, p > .10 respectively).

Generalization

Parents were asked whether they had utilized any of the behavior modification principles on problems other than the one they specifically worked on in class. Of the parents who completed the post-test data, seven out of eight in the General group and four out of seven in the Specific group responded in the affirmative. A Fisher Exact Probabilities Test was computed; however, no significant differences were found to exist between the two groups (p > .05).

Attendance and Completion of Assigned Data

The mean percentage of attendance for both groups was 69.09% with a range of 20% to 100% for both groups. A t-test failed to reveal any significant differences between the two groups (t = 0, d.f. = 20, p > 1.0). Similarly there were no significant differences between the two groups in completing the assigned data (t = 1.26, d.f. = 20, p > .10). The General group completed 66% of their assignments, with a range of 28.50% to 100% while the Specific group completed 53% of their assignment with a range of 28.50% to 85.70%.

In summary, no significant differences were found to exist between the two experimental groups as measured by the Behavior Problem Checklist scores, Attitude Toward Therapy scores, attempts at generalization, or the two measures of parental cooperation, attendance and completion of assigned data. Although both groups showed improvement relative to their own baseline measures, there was no strong evidence to suggest that one method of training was superior to the other. Therefore, in order to shed additional light on the relative differences between the two groups and the program as a whole, clinical data in the form of individual case studies will be presented.

General Group

Cases numbered one through eleven comprised the General group.
Eight males and three females were selected as the target children. They ranged in age from two-and-one-half-years to thirteen years with a mean age of 7.18. The behaviors that the parents selected to work on during the program were primarily classified as mild behavioral problems and included such problems as namecalling, teasing, fighting, negativism, getting to bed on time, swearing, and thumbsucking. Eight parents reported a reduction in the frequency of the target problem behavior and three parents failed to return the posttest data. The percentage of reduction ranged from 23% to 89%, with a mean of 60.40%. On the pretest form of the Behavior Problem Checklist they checked an average of 13.33 items, with a range of four to twenty-two. Three parents reported a reduction in the number of items checked on the Behavior Problem Checklist, three reported an increase, and five failed to return the data. Of the six that completed the posttest data, the mean number of items checked was 12.16, with a range of five to twenty-five. The reduction in the number of items checked on the Behavior Problem Checklist seemed equally divided among those behaviors classified as mild behavioral (e.g. fighting, temper tantrums, disobedience, negativism, and disruptiveness) and those classified as personality problems. Many of the parents perceived their children as less attention seeking, less shy, and appearing more socially mature and confident. On the Attitude Toward Therapy Inventory seven parents indicated that they were satisfied with the overall program, one parent expressed dissatisfaction, and three failed to return the form. The majority of parents indicated that the use of positive reinforcement was the most beneficial aspect of the program. Six parents reported that they had generalized the principles acquired during the sessions to other problem areas, one set of parents indicated that they did not attempt to do so, and four parents failed to return the posttest generalization form. Most of the parents attempted to generalize the behavioral principles acquired during class to problems with the target child not worked on during class and to problems with their other children. Several parents also indicated that they had shared their knowledge of behavior modification
with friends and relatives.

Case # 1

During the first session, the father of A, a thirteen-year-old male, indicated that he would like to 1) decrease the rate of his son's belittling and name-calling of his siblings, 2) increase his son's responsibility in picking up his clothing, and 3) have his son go to bed earlier on school nights. He felt that the first two problems were moderately serious and the third problem was serious. He collected baseline data on all three problems and finally selected name-calling and belittling as the target problem. His intervention utilized a charting procedure listing both appropriate and inappropriate behaviors. A was given a predetermined number of points for appropriate behavior which could be exchanged for money, candy, and preferred activities. Mr. A found the use of positive reinforcement to be highly effective, but also included the loss of one point for each inappropriate behavior in his son's program. Over the course of five weeks the frequency of name-calling and belittling decreased from a daily rate of 4.75 to 0.50, for an overall reduction of 89%. Posttest rating of the three target problems indicated that name-calling and belittling was now viewed as a very mild problem, going to bed was unchanged, and picking up his clothes was viewed as a serious problem.

Mr. A attended all of the sessions (100%) and was fairly cooperative in turning in the assigned data (71%); however, he failed to return the posttest forms. As such it was impossible to ascertain whether any change had occurred on the ten items that he had checked on the Behavior Problem Checklist or whether he attempted to generalize the principles that he had acquired during the child management classes. The items that were checked on the Behavior Problem Checklist seemed to fall into two clusters: mild behavioral problems (restlessness, attention-seeking, fighting, and irresponsibility) and generalized personality problems (social withdrawal, jealousy, irritability, physical complaints, and laziness). He did indicate during the last session that his other children still had a serious problem getting to bed on time and that his
other son’s problem with name-calling was no longer a serious as compared to an initially moderate problem.

Mr. A's responses on the Attitude Toward Therapy Inventory indicated that he was quite satisfied with the program as a whole (4.09), and with the therapist (5.00); however, he felt that the other group members were of little help (2.00). According to him, the use of positive reinforcement and the variety of techniques available to modify problem behaviors were the most beneficial aspects of the program.

In summary, Mr. A was able to successfully reduce the frequency of a minor problem behavior; however, there was no evidence of generalization of treatment effects.

Case # 2

B, an eight-year-old female, was chosen by her mother as the target child during the first session. Her mother indicated that her primary problems were 1) clinging to her parents, 2) teasing her sister, and 3) reluctance to put away her belongings. These were rated as moderate, serious, and moderate problems respectively. Mrs. B selected teasing and fighting as the target problem. Her intervention consisted of charting appropriate behaviors and ignoring inappropriate behaviors. Appropriate behaviors were reinforced by both praise and points which could be exchanged for the following rewards: staying up late, individual time spent with her parents, having a girlfriend sleep over, money for a new toy, and having her mother curl her hair. At the end of the five week program, the frequency of teasing and fighting had decreased from a daily rate of 5.14 to 1.11, for an overall reduction of 78%. Teasing and fighting were now rated as very mild problems, while clinging and putting away her belongings were still rated as moderate.

Mrs. B initially checked seventeen problems, with a severity rating of twenty-two on the Behavior Problem Checklist. Five of those problems were classified as mild behavioral problems while eight were classified as personality problems. Even though the number of items checked on the posttest form was only one less (16), the behaviors were viewed as less serious (17), which indicates
that some generalization of treatment effects may have occurred. Seven behaviors were checked as occurring less frequently, ten remained unchanged, and two additional problems (restlessness and irritability) were added. The greatest change occurred in those behaviors which were originally classified as personality problems. For example, the seven less severe behaviors were attention-seeking, feelings of inferiority, crying over minor hurts, lack of self-confidence, shyness, anxiety, and disobedience. Apparently during the time period, B became less babyish and more socially mature. It is difficult to comprehend these changes as a consequence of a behavioral program which reduced teasing and fighting. It seems more likely that these effects are related to B’s increased confidence in herself as a result of having been positively reinforced for her newly acquired skills.

Mrs. B attended 80% of the sessions and handed in 85% of the assigned data. Her responses on the Attitude Toward Therapy Inventory indicated that she was quite satisfied with the program (4.27), the therapist (4.36), and the other members (4.00). She said that the examples used to illustrate different behavioral principles were the most beneficial aspect of the program. Mrs. B shared the techniques learned during the class with her husband and also generalized these techniques to other problems. For example, she used the extinction principle to reduce the frequency of her daughter’s clinging in public. She also attempted to modify her son’s fighting, by withdrawing television privileges and reinforcing him for appropriate behavior. She had initially indicated that this was a very serious problem but that now it was only a moderate one. It appears that the generalization of treatment effects occurred in problem behaviors almost identical to the target behavior (e.g. fighting). It also stands to reason that if the frequency of the target child’s fighting decreased, there would be a corresponding reduction in fighting in their son, since the two children fought with each other.

In summary, Mrs. B reported good success with the behavioral objective and also a corresponding increase in social maturity in
her daughter. Mrs. B attempted generalization and was reportedly successful in the reduction of behaviors similar to the target behavior.

**Case # 3**

Mrs. C selected her twelve-year-old son as the target child during the first session. She listed the following two behaviors as moderate problems: swearing and negative responses, which she defined as failure to respond to her requests without undue delay. Mrs. C first attempted to positively reinforce her son for appropriate language and to take away privileges for inappropriate behavior. Reinforcement consisted of praise and privileges such as swimming, hunting, shopping, movies, and a trip to the farm. This particular intervention did not seem to have any noticeable effect on his behavior; therefore, a new procedure was introduced. Mrs. C felt that her son was unaware that he was swearing and needed to be made more aware of this behavior. Furthermore, he seemed to resent his mother for reminding him of his inappropriate language. Accordingly, he was instructed to write down in a notebook each swear word immediately after he had used it. This was intended to make him more aware of his inappropriate language and to place the responsibility for changing his behavior on himself. This procedure seemed to be effective in both calling attention to his swearing and reducing the daily rate of occurrence from 4.7 to 1.28, for an overall reduction of 72%. Despite this improvement, Mrs. C still rated both swearing and negative responses as moderate problems. It is possible that since Mrs. C had such a strong objection to swearing, the frequency of swearing would have to decrease to zero before she felt that it was no longer a problem. Furthermore, she selected a problem which is probably more resistant to extinction as her son may be reinforced by his peers for inappropriate language. It is also possible that "writing" extinguished but "swearing" did not.

Mrs. C checked twelve items on the pretest form of the Behavior Problem Checklist. The items were fairly evenly distributed among mild behavioral and personality problems. The greatest change
occurred in those problems originally classified as personality problems. Lack of self-confidence, depression, and negativism were no longer felt to be a problem, while the remaining problems were unchanged. Mrs. C did however, check five new problem behaviors: preoccupation, inattentiveness, loyal to delinquent friends, temper tantrums, and irritability.

Mrs. C attended 100% of the classes and turned in 71% of her assignments. She did not fill out the Attitude Toward Therapy Inventory correctly, but did express her satisfaction with the program. She had attempted to generalize principles learned during the classes to other problems. For example, she had positively reinforced her son for going to bed on time, brushing his teeth, etc.

In summary, Mrs. C reported some success with the behavioral program. Even though she attempted generalization, there is little evidence to suggest generalization of treatment effects.

Case # 4

Mr. and Mrs. D chose their seven-year-old son as the target child. During the first session they indicated that his primary problems were 1) negative responses, 2) fighting with his sister, and 3) temper tantrums. All three were judged to be moderate problems. Mr. and Mrs. D had some difficulty obtaining baseline data the first week because they found that the frequency of their son's inappropriate behavior decreased with the advent of the good weather as he was spending more time outdoors. The data collection was extended another week and they finally decided to work on negative responses, including fighting with his sister. They charted his appropriate behavior and gave him points which he could exchange for movies, playing cards, shopping, riding his bike, and staying outside for longer periods of time. They also included extinction and time-out for fighting and negative responses. At the end of the program, the frequency of negative responses and fighting had decreased from a daily rate of 2.00 to 0.99, for an overall reduction of 50%. Both fighting and temper tantrums were now rated as very mild problems while negative responses were felt to be
unchanged. It appears that there is considerable overlap in these three behaviors and that the reduction in the target behavior is probably the most reliable indicator of success.

The D's had initially checked 24 items on the Behavior Problem Checklist. Over one-half of the items checked were classified as behavioral problems, with approximately one-fourth classified as personality problems. One item was no longer felt to be a problem, twelve items remained the same, and eleven additional items were checked. The additional items that the D's checked seemed to indicate that their son had become more socially withdrawn and distractible. The D's did not offer any explanations as to why their son seemed to have more problems. Since they experienced a reduction in the target problem and were satisfied with the program, it is unlikely that their child's problems became worse or generalized to other areas. It may be that the D's became more attentive to his behavior and thus aware of more problems as a result of collecting data on his problem behaviors. Nonetheless, the validity of their impressions are questionable.

The D's attended 100% of the sessions and handed in 100% of the assignments. According to the Attitude Toward Therapy Inventory, they were moderately satisfied with the overall program (3.55), and the therapist (3.66), and less than satisfied with the other group members (2.50). The D's did generalize the behavioral principles learned during the program to problems with their other children. For example, they used a charting procedure to help their little girl with her chores and to reduce the frequency of her fighting. Again it appears, that the generalization of treatment effects was greatest in problems almost identical to the target problem.

In summary, the D's reported limited success with fighting. They subjectively reported the generalization of treatment effects with problems similar to the target problem; however, the Behavior Problem Checklist data suggest that there was no generalization of treatment effects and that in actuality their child had gone from bad to worse.
Case # 5

E, a two-and-one-half-year-old male was selected by his parents as the target child during the first session. Fighting, temper tantrums, and negative responses were listed as his primary problems. The first two problems were rated as moderate while negative responses were rated as very serious and eventually selected as the target problem. The E's utilized positive reinforcement of appropriate behaviors, extinction, and time-out as a part of their intervention. Since E was only two-and-one-half-years old, they relied heavily on the use of candy, cookies, gum, and toys though they also used stars which could be turned in later in the day for reading time and playing outside with father. The frequency of negative responses was reduced from a baseline rate of 5.14 per day to 3.95, for an overall reduction of 23%. Even though there was not a substantial decrease in the frequency of inappropriate behavior, the E's subjectively felt that the occurrence of negative responses was now only a moderate problem, and that temper tantrums was now only a mild problem. Fighting was judged to be unchanged. Because of his tender age, their son may have needed a longer period of time before more significant changes could be seen. It is also possible that while the actual number of negative responses had not decreased dramatically, the severity of those responses had.

On the pretest form of the Behavior Problem Checklist, the E's checked 15 problems with a severity rating of 24. There was a substantial reduction in both the number of items checked (nine) and the severity of those problems (eleven), which seems to indicate some generalization of treatment effects. Eleven items were rated as less serious, four items as unchanged, and one additional item, attention-seeking, was checked. The majority of change occurred in those behaviors originally classified as behavioral problems. He was rated as less negativistic, disruptive, impertinent, boisterous, destructive, disobedient, and less inclined to temper tantrums, which is a very impressive change in a two-and-one-half-year old. He was also rated as less distractible with a longer attention span.
(inattentiveness was unchanged) which are probably changes attributable to aging.

The E's attended 100% of the sessions and completed 100% of the assigned data. They also seemed quite satisfied on the Attitude Toward Therapy Inventory with the overall program (3.90), the therapist (4.33), and the other members (3.50). They found the use of positive reinforcement as opposed to yelling and physical punishment to be particularly beneficial to them. Their responses on the posttest generalization form indicated that they had successfully generalized the principles learned during the classes to other problem areas. For example, they used extinction to decrease the rate of tantrum behavior in E. They also found extinction to be effective with talking-back behavior and acting like a cry-baby in their seven-year-old son. A posttest rating of his cry-baby behavior revealed that the E's felt that this behavior was now only a moderate compared to a serious problem. The E's were also able to utilize positive reinforcement techniques and contracting with their seven-year-old child to do his chores.

In summary, the E's reported limited success with the target behavior; however, there was great improvement in a cluster of negativistic and disruptive behaviors. The parents seemed to have acquired sufficient control of their child's behavior and the ability to generalize the behavioral principles acquired during class.

Case # 6

Mr. and Mrs. F selected their five-year-old daughter as the target child. During the first session they indicated that thumbsucking, loud talking, and interrupting were the primary problems that they wanted to work on. Thumbsucking was rated as a moderate problem while the remaining two problems were rated as very mild. The F's collected baseline data on all three problems and chose thumbsucking as the target problem. They employed a cueing and shaping technique in their intervention program, rewarding her for increasing periods of time without her thumb in her mouth. Rewards included praise and tokens which could be exchanged for candy, gum,
and having stories read to her. Although the parents were not consistent in their attempts to modify their child's behavior and eventually gave up, they did indicate that their child's behavior improved slightly, and that the duration of thumbsucking had decreased from 15-20 minutes to 10 minutes per day.

They initially checked four items on the Behavior Problem Checklist. According to their posttest rating, two items (attention-seeking, and crying over minor hurts) were no longer a problem and three additional problems (self-consciousness, shyness, and temper tantrums) were noted. The two items which remained unchanged were disruptive and impertinent behaviors. The parents reported very few problems with their child other than thumbsucking. Therefore, their motivation for participation in the program may be questioned, since there was little to be gained in the way of behavioral improvement, since their child was given the lowest rating on the Behavior Problem Checklist pretest in the General group.

Mr. and Mrs. F were the only parents to voice dissatisfaction with the program. Their overall reaction on the Attitude Toward Therapy Inventory was neutral (3.09), while their reaction to the therapist (2.66), and the other group members (2.50) represented mild dissatisfaction. Mrs. F became bored with the program and felt that the material could have been presented in a much shorter period of time. In view of their dissatisfaction with the program it perhaps is not surprising the the F's did not generalize the principles learned during the class to other problem areas.

In summary, the F's were dissatisfied with the program and were unable to successfully modify the target behavior or generalize the principles learned during class to other areas.

Case # 7

The G's chose their seven-year-old son as the target child. During the first session they indicated that he had 1) an excess of negative responses, 2) whined too much, and 3) was rowdy. They rated the first two behaviors as serious problems and the third as a moderate problem. The G's recorded baseline data on all three problems and finally decided to combine whining and negativism
as the target problem. Their intervention consisted of positive reinforcement in the form of praise and tokens, extinction, and a mild time-out procedure. The G's devised a rather ingenious chart made to look like an ice rink with two hockey players, one for desirable behaviors and one for undesirable behaviors. Both players progressed across the rink throughout the day and whichever came out ahead won a prize. The rewards included having friends over to play, playing outside after dinner, playing sports with his father, and pennies. Even though the frequency of G's undesirable behavior did not show a substantial drop from that of baseline, 2.98 per day to 2.14 (28% reduction), the parents were well satisfied with the results, especially because of the increase in desirable behaviors from a baseline rate of 15 per day to 29 per day. At the end of the program, the G's rated both negativism and whining as a very mild problem and rowdiness as very mild to no problem. It appears that even though there was not a considerable reduction in the target problem, there was considerable generalization of treatment effects, resulting in a marked increase in appropriate behaviors. The G's seemed more pleased by the increase in appropriate behaviors since they were willing to tolerate occasional whining and negativism.

Along similar lines the number of items checked (21) and their respective severity ratings (29) on the Behavior Problem Checklist was reduced to 14 with a severity rating of 15. The greatest reduction occurred in those behaviors originally classified as behavioral problems (disruptiveness, fighting, temper tantrums, and disobedience) followed by personality problems (feelings of inferiority, shyness, anxiety, and jealousy). Overall, he appeared less disruptive and more socially mature. Fourteen items showed a decrease in severity with nine of those items no longer being a problem. Seven items were felt to be unchanged and two additional items, boisterousness and irresponsibility were checked.

The G's attended 100% of the sessions and were equally cooperative in the completion of assigned data (100%). Their responses on the Attitude Toward Therapy Inventory indicated that they were
quite satisfied with the overall program (4.18) and the therapist (4.33), but somewhat less than satisfied with the other group members (2.50), which was probably due to the high drop-out rate in that particular group. They indicated that the use of positive reinforcement, time-out, and the setting of goals was the most beneficial aspect of the program.

The G's were able to successfully generalize the principles learned during class to other problem areas. For example, they utilized a combination of cueing and time-out to reduce the amount of fighting and back-talking in the target child. They also used extinction and time-out to decrease the frequency of temper tantrums in their four-year-old son. This behavior was initially rated as very serious and was now felt to be just serious. Mrs. G shared some of the techniques that she learned during class with her neighbor and helped her set up a program.

In summary, the G's reported limited success with the target behavior; however, there was considerable overall improvement in clusters of behaviors suggesting less disruptiveness and more security. There appeared to be considerable generalization of treatment effects both on the Behavior Problem Checklist and to other problems.

Case # 8

Mrs. H selected her seven-year-old son as the target child during the first session. She indicated that she would like to work on the following problem behaviors: getting to bed on time, acting up when people came to visit, and fighting. After collecting baseline data on all three problems, she finally decided to select getting to bed as the target behavior. Her intervention consisted of a cue to get ready for bed and positive reinforcement in the form of praise and tokens which could be exchanged for reading time, taking a box lunch to school, baking cookies, and bike riding time. Mrs. H found the program to be highly effective, with the frequency of being late for bed decreasing from a baseline rate of 0.83 per day to 0.14, for an overall reduction of 83%.

Mrs. H now rated getting to bed as a very mild problem. Likewise,
she felt that fighting and acting up in the presence of visitors were both mild problems. She also indicated that a problem with her older son, not being outgoing, was now viewed as a mild problem compared to an initially moderate problem.

Mrs. H had checked 13 items on the pretest form of the Behavior Problem Checklist, but failed to return the posttest form, so it was impossible to ascertain whether any changes occurred in those behaviors. Over one-half of the items checked were classified as behavioral problems and included such problems as boisterousness, uncooperative in groups, impertinence, temper tantrums, attention-seeking, destructiveness, and negativism. The remaining items were classified as personality problems and included self-consciousness, feelings of inferiority, shyness, lack of self-confidence, and secretiveness.

Mrs. H attended 80% of the sessions and completed 57% of the assigned data. Her responses on the Attitude Toward Therapy Inventory indicated that she was quite satisfied with the overall program (4.36), the therapist (4.66), and the other group members (4.50 (4.50). Mrs. H stated that the most helpful part of the program was that she had found an alternative to yelling, namely positive reinforcement. Even though Mrs. H did not return the posttest generalization form, she did share the techniques she acquired during the class with her neighbor, whom she brought to class on one occasion.

In summary, Mrs. H reported good success with a minor problem behavior.

Case # 9

Mr. and Mrs. I selected their seven-year-old son as the target child. Getting ready for school and stealing were seen as moderate problems, while lying was rated as serious. The I's had previously attended a Parent Effectiveness Training class, but concluded that these techniques were not as effective with their son as with their other four children. They voiced considerable skepticism about the techniques during the first session, feeling that they had used similar "common sense" techniques, but did
agree that they did not use these techniques consistently. Their primary objection to the use of behavioral techniques was with reinforcement which they equated with bribery. They also felt that if any longlasting changes were to occur in their son, they had to be accompanied by their insight into the origins of his inappropriate behavior.

The I's checked 23 items, with a severity rating of 30 on the pretest form of the Behavior Problem Checklist; however, they dropped out of the group after the first session, so no posttest data was collected. They stated that they had to miss two sessions and felt that they would not be able to make up the lost time. Of the items that they checked on the Behavior Problem Checklist, the majority were classified as behavioral problems and included restlessness, attention-seeking, disruptiveness, boisterousness, fighting, temper tantrums, irresponsibility, disobedience, hyperactivity, and destructiveness. They also checked several items classified as personality problems, self-consciousness, feelings of inferiority, lack of self-confidence, jealousy, secretiveness, and hypersensitivity. Preoccupation, short attention span, laziness, and excessive daydreaming were also listed as problem behaviors.

In summary, it appears that the I's had considerable problems and it is unfortunate that they dropped out of the group.

Case # 10

The seven-year-old daughter of Mrs. J was selected as the target child. Her mother indicated that temper tantrums, sassing, and showing-off were her primary problems. Tantrums and showing-off were rated as serious problems while sassing was considered to be a moderate problem. Mrs. J checked 18 items with a severity rating of 19 on the pretest form of the Behavior Problem Checklist. The majority of those items were classified as behavioral problems and included such problems as restlessness, disruptiveness, boisterousness, fighting, temper tantrums, irresponsibility, disobedience, destructiveness, negativism, impertinence, and irritability.

Under the personality problems several items jealousy, feelings of inferiority, crying over minor hurts, lack of self-confidence,
easily flustered, and hypersensitivity were checked.

Mrs. J attended only one session, so neither baseline or posttest data was collected. Mrs. J had previously attended a child management class given by a local agency and it was possible that the same material was being presented in both classes.

Case # 11

Mrs. K selected her four-year-old son as the target child and bedwetting as the target problem. She checked nine items with a severity rating of ten on the pretest form of the Behavior Problem Checklist. The majority of the problems were classified as behavioral problems and included such behaviors as restlessness, attention-seeking, jealousy, irresponsibility, disobedience, uncooperative in groups, and destructiveness. Distractibility and enuresis were also checked as problems. Mrs. K attended only one session, so no baseline data or posttest measures were collected.

Specific Group

Case numbered 12 through 22 comprised the Specific group. The target children ranged in age from five years to twelve years with a mean age of 8.45. Two of the eleven were female and nine were male. As with the General group the majority of the target behaviors were mild and included such problems as fighting, negativism, obedience, nailbiting, dependability, procrastination, picking up personal belongings, and doing chores. Of the eight parents who collected data on the target problem behavior, seven reported a reduction and one reported an increase in inappropriate behavior. The percentage of reduction ranged from a negative 15% to 100%, with a mean of 59.80%. Their responses on the pretest form of the Behavior Problem Checklist, indicated that they had checked an average of 10.33 items, with a range of two to twenty-four. The six parents who completed the posttest form, checked an average of 4.83 items, with a range of zero to eleven. The greatest change occurred in those behaviors classified as mild behavioral problems (e.g. fighting, temper tantrums, impertinence, and disobedience); however, several parents reported personality changes in their children such as increased self-confidence and
a decrease in shyness, crying over minor hurts, jealousy, and restlessness. All six of the parents who returned the Attitude Toward Therapy Inventory indicated that they were satisfied with the program. Six parents attempted to generalize behavioral principles to problems other than the one they specifically worked on in class, two parents did not attempt to generalize their skills, and three parents failed to return the posttest data.

Case # 12

The five-year-old son of Mrs. L was selected as the target child during the first session. She listed putting away his clothes and toys, talking back, and not obeying without undue delay as his primary problems. After collecting baseline data on all three problems, she finally decided to design a program that would help her son respond more quickly to her requests. She found praising L for appropriate responses and also giving him points which could be exchanged for candy, television time, trips to the library, and staying up later, to be highly effective. At the end of the program, the frequency of L's procrastination and ignoring of parental requests decreased from a daily baseline rate of 4.23 to 0.57 for an overall reduction of 86%. Furthermore, Mrs. L felt that L's three primary problems were now very mild as compared to initially moderate problems.

Mrs. L's responses to the Behavior Problem Checklist indicated that she felt that five of the initial eleven items checked were no longer a problem, (crying over minor hurts, short attention span, lack of self-confidence, hypersensitivity, and disobedience). Five behaviors remained the same while three additional behaviors, easily flustered, fighting, and passivity, were now checked. Although the percentage of reduction on the Behavior Problem Checklist was not as impressive as on the target problem reduction, Mrs. L did check two less problems on the posttest form of the Behavior Problem Checklist. The greatest change seemed to occur in those problems originally classified as personality problems. While the change in disobedience might be attributed to the generalization of treatment effects, the changes in the other behaviors
are more difficult to explain, though the increase in attention given to the target child can not be ruled out as a contributing factor.

Mrs. L attended 60% of the sessions and completed 71% of the assigned data. Mrs. L initially seemed enthusiastic about attending the sessions, but understandably lost some of her enthusiasm as some of the other group members began to drop out after the third session. These feelings appear to be reflected somewhat in her responses to the Attitude Toward Therapy Inventory on which she indicated satisfaction with the overall program (4.00) and the therapist (4.00), but a rather neutral attitude toward the other group members (3.00).

Both Mr. and Mrs. L had some familiarity with behavioral techniques prior to the class, but lacked the knowledge to set up a step-by-step workable program. Their familiarity with behavior modification may have accounted for some of the overall success. Mrs. L had not made a special effort to generalize the techniques learned during class to other problem areas, although she planned to do so in the future as problems arose. She was able to share her knowledge of behavior modification with a friend who responded enthusiastically by setting up a program of her own.

In summary, Mrs. L reported considerable success with the target behavior; however, there was little evidence of generalization.

Case # 13

Mrs. M selected her eight-year-old daughter as the target child during the first session. She indicated that her daughter's primary problems were 1) ignoring requests to help with family chores, 2) sharing daily experiences, and 3) personal cleanliness. Mrs. M experienced some difficulty collecting baseline data as she found it difficult to record each behavior as it occurred. She experienced similar difficulties carrying out the program because she felt that it was easier for her to do her daughter's chores herself than to comply with the program. Mrs. M eventually found that when she consistently followed the program designed to decrease the frequency of her daughter ignoring parental requests, that
the behavioral techniques were effective. Nonetheless, she often found herself slipping back into her old behavior patterns of either yelling at her daughter or doing her chores herself. She found that the most difficult part of the program was disciplining herself, not her daughter. Her intervention consisted of a cue and the charting of appropriate behaviors. Points acquired for appropriate behaviors could be turned in for phone calls, individual time spent with her parents, shopping, choice of a movie or entertainment, and having a friend over to visit. In spite of her inconsistencies, the frequency of her daughter's ignoring parental requests decreased from a daily baseline rate of 4.50 to 2.14, for an overall reduction of 52%.

Mrs. M's responses on the posttest form of the Behavior Problem Checklist also demonstrated the effectiveness of the treatment program and the generalization of treatment effects to other problem areas. Mrs. M initially checked ten items on the Behavior Problem Checklist; she checked five items on the posttest form. Six behaviors, self-consciousness, lack of self-confidence, fighting, irresponsibility, clumsiness, and destructiveness were no longer felt to be a problem. Four behavior were unchanged and one additional problem, sluggishness was checked. The behaviors rated as no longer a problem seemed to be equally divided among those problems classified as behavioral problems and those classified as personality problems.

Mrs. M attended all of the sessions (100%) and completed 71% of the assigned data. Her responses on the Attitude Toward Therapy Inventory indicated that she felt that the overall program and the therapist were moderately helpful (3.63 and 4.00 respectively). In view of the high drop-out rate in the Tuesday group, it is not surprising that she found the other group members to be of little help (2.50). As previously indicated, Mrs. M had some difficulty consistently implementing her daughter's program; nonetheless, she felt that the program was worthwhile and she was considering designing a similar program for her two sons.

In summary, Mrs. M reported some success with the behavioral
program. She had not attempted to generalize the principles learned during class; however, her response on the Behavior Problem Checklist suggest some generalization of treatment effects.

Case # 14

Mrs. N chose her seven-year-old son as the target child during the first session. According to her, his primary problems were picking up his personal belongings, personal hygiene, and difficulty sleeping through the night. Mrs. N collected baseline data on all three problems but eventually decided to design a program to increase the frequency of her son's picking up his personal belongings. Mrs. N utilized positive reinforcement in the form of praise, affection, and charting. Stars earned on the chart could be exchanged for money and staying up late. Over the course of the program, the frequency of his failing to pick up his belongings decreased from a daily baseline rate of 3.50 to 0.00, for an overall reduction of 100%. The success of the program was also evidenced on the posttest rating of that behavior as no longer being a problem. While there was no change in N's sleeping problems, which were still viewed as serious, there was some change from moderate to very mild in his personal hygiene habits.

Mrs. N only checked four items, all of which were classified as behavioral problems, on the pretest form of the Behavior Problem Checklist; nonetheless, three of those behaviors restlessness, jealousy, and impertinence were no longer felt to be a problem. Anxiety the fourth problem remained unchanged. It was rather difficult to ascertain the extent of generalization since Mrs. N checked so few items on the pretest form of the Behavior Problem Checklist.

Mrs. N attended 100% of the sessions and completed 85% of the assigned data. Her satisfaction with the program was reflected in her ratings on the Attitude Toward Therapy Inventory. She found the overall program (4.63), and the therapist (5.00) to be quite helpful. While her ratings of the other group members were somewhat lower (4.00), her overall opinion of them was still high.
Mrs. N found that the lectures and discussion were equally beneficial. She found charting, positive reinforcement, and the examples used to illustrate a particular behavioral technique to be the most helpful for her.

Mrs. N attempted to generalize the principles learned during class to several problem behaviors, including having her son sleep through the entire night without becoming frightened. While she felt that it was too soon to determine if the program was effective, he had slept two nights over the past week without any difficulties. Mrs. N had initially indicated that her daughter had a moderate problem with shyness and jealousy. While her shyness remained unchanged, her jealousy seemed to become a more serious problem over the course of the program, which could be due to the increased attention paid to her brother as a result of him being selected as the target child. Mrs. N decided to set up a program for her daughter and has recently noticed a slight improvement in her jealousy as well as much improvement in the picking up of her personal belongings.

In summary, Mrs. N reported considerable success in the behavioral program and some generalization of treatment effects.

Case #15

Mrs. O selected her ten-year-old son as the target child. Nailbiting, tooth-brushing, and teasing and fighting with his sister were listed as his primary problems. After collecting baseline data on all three problems, Mrs. O finally selected nailbiting as the target behavior. Her intervention utilized a number of behavioral techniques including cueing, the reinforcement of incompatible responses (gum chewing), negative reinforcement, and positive reinforcement in the form of praise and points which could be exchanged for candy, money, playing cards, watching television later at night, and the privilege of being excused from a particular chore. O was given points for increasing periods of time during which he did not bite his nails. By the end of the program, his rate of nailbiting had decreased from a daily rate of 3.57 to 1.28, for an overall reduction of 64%. The charting of
O's nailbiting, namely stress and boredom. For example, Mrs. O found that prior to a swim or track meet the frequency of nailbiting would increase; therefore, she was able to keep extra gum on hand and give additional reminders not to bite his nails and to engage in another activity. Posttest ratings of the target behavior indicated that nailbiting, despite the reduction in frequency, was still viewed as a moderate problem while tooth brushing, and teasing and fighting, which were initially viewed as moderate problems, were now seen as very mild and no problem respectively. The generalization of treatment effects also seemed to apply to a problem encountered in her two daughters, namely possessiveness. While their possessiveness was initially viewed as only a mild problem, at the end of the program it was no longer felt to be a problem at all. Mrs. O's responses on the Behavior Problem Checklist also suggested a generalization of treatment effects since the three behavioral problems (restlessness, jealousy, and impertinence) that Mrs. O had checked on the pretest form were no longer checked.

Mrs. O attended 80% of the sessions and completed 57% of the assigned data. Her responses on the Attitude Toward Therapy Inventory indicated that she was quite satisfied with the overall program (4.18), the therapist (5.00), and the other group members (4.00). Mrs. O felt that the use of positive reinforcement and the discussion of behavioral principles were the most beneficial aspects of the program.

Mrs. O did share many of the techniques learned during the class with her friends and also designed a program for her other child. For example, when her fourteen year old daughter bit her nails, she was instructed to record the date, time, and nail that she bit. This became such a nuisance to the daughter that the frequency of nailbiting decreased dramatically. She also found that she was able to successfully increase the rate of toothbrushing in her son.

In summary, Mrs. O reported success in the behavioral program and some generalization of treatment effects.
The seven-year-old son of Mr. and Mrs. P was selected as the target child during the first session. They indicated that lack of respect, attention-getting behaviors, fighting, and responsibility were his primary problems. The P's were never able to satisfactorily collect baseline data or posttest data on the target problem, fighting. They did design an individual program for all of their children which relied on positive reinforcement in the form of praise and points which could be exchanged for a variety of activities. They found that their children preferred family activities, such as going out for a pizza with the child who did the best on his particular program getting to choose the type of pizza. Each child constructed his own chart and was responsible for his own charting. Each behavior and its subsequent reward was negotiated each week to maintain their interest in the program. While the P's subjectively felt that the programs were highly effective, they never submitted any objective data to the leader, so statistical comparisons were impossible.

The P's checked nine items with a severity rating of eleven on the pretest form of the Behavior Problem Checklist, but failed to return the posttest data. All of the problems were classified as behavioral problems and included such behaviors as restlessness, attention-seeking, disruptiveness, boisterousness, jealousy, fighting, disobedience, uncooperative in groups, and hyperactivity.

They attended 60% of the sessions but only completed 42% of the assigned data. While both expressed considerable satisfaction with the program, they failed to complete either the Attitude Toward Therapy Inventory or the generalization form; however, they did design and implement programs for all of their children.

In summary, the P's subjectively reported success in both the behavioral program and generalization; however, there is no objective data to support this contention.

Case # 17

Mr. and Mrs. selected their ten-year-old son as the target child during the first session. They indicated that fighting,
bedwetting, and refusing to do as asked were his primary problems. After collecting baseline data on all three problems, the Q's selected negative responses (not doing as asked) as the target problem. Their program utilized taking away privileges and positive reinforcement in the form of praise and points which could be exchanged for candy, individual time spent with his parents, and staying up late. At the end of the program, the baseline frequency of negative responses had decreased from a daily rate of 6.00 to 1.64, for an overall reduction of 72%. The success of the program was also reflected in the rating of that behavior from serious to moderate. They also felt that fighting was now a very mild, compared to an initially moderate problem, while the frequency of bedwetting was unchanged and still felt to be a moderate problem. It may be that bedwetting will require a longer period of time for changes to occur.

The Q's also reported a reduction in the number of items checked on the Behavior Problem Checklist. They initially checked 20 items with a severity rating of 2.4, but afterward checked only seven items. Fourteen items were no longer felt to be a problem, four were judged to be less serious, three were unchanged, and one additional item, negativism was checked. The majority of items that they originally checked were classified as behavioral problems, followed by personality problems. Improvement was noted in both areas with five fewer problems being checked in both the behavioral and personality areas. The decrease in frequency of behaviors such as restlessness, boisterousness, temper tantrums, impertinence, disruptiveness, and irritability, all behavioral problems, can probably be attributed to the generalization of treatment effects. The reduction in behaviors such as feelings of inferiority, crying over minor hurts, short attention span, lack of self-confidence, secretiveness, hypersensitivity, passivity, and distractibility (which are personality problems) are more difficult to explain but may represent increased confidence in skills as a result of the positive reinforcement of those skills.

The Q's attended 100% of the sessions and completed 71% of the assigned data. Their responses on the Attitude Toward Therapy
Inventory indicated that they were very satisfied with the overall program (4.54), the therapist (4.66), and the other group members (5.00).

The Q's attempted to generalize the principles learned during class to other problem areas. For example, they used a time-out procedure to decrease the rate of fighting in their son. This was initially viewed as a moderate problem but was now rated as only a mild problem. There did not appear to be any generalization of treatment effects to the bedwetting problem in either the target child or their other son, with both problems still rated as moderate and serious respectively.

In summary, the Q's reported success in both the behavioral program and in the generalization of treatment effects.

Case # 18

Mr. and Mrs. R selected their twelve-year-old son as the target child. During the first session they indicated that fighting, dependability, and making friends were his primary problems. They felt that all three of the problems were very serious and had recently made an appointment for their son to see a psychiatrist because of his anxiety and inability to make friends. They collected baseline data on fighting and dependability, and finally decided to design a program to increase their son's dependability, i.e. doing his chores, getting home on time, and putting away his personal belongings. Baseline data revealed that R was undependable on an average of 1.2 times per day; however, his parents felt that he was having an exceptionally good two weeks because of the good weather, and that the actual rate of undependability was much higher. Their program utilized positive reinforcement in the form of praise, encouragement, and points which could be exchanged for privileges such as staying up late and spending time with his parents. The posttest data revealed that his rate of undependability had actually increased to a daily average of 1.42, for an overall increase of 15%. As such, they were the only parents to report an increase in inappropriate behavior at the end of the program. The R's did indicate that their son had an exceptionally
poor week and during the preceding weeks, the frequency of undependability had decreased to .28. The parents felt that the sudden increase in undependability was due to the fact that their son had obtained a job mowing lawns and had neglected his chores at home. It is interesting to note that the monetary payoff for mowing lawns was greater than the reward for doing chores at home; therefore, dependability outside the home may have increased while dependability at home decreased. Despite the increase in undependability, the R's felt that this was only a mild problem compared to what had been a very serious problem. It is possible that there may have been a change in the quality of undependability, so that recent instances were minor in character compared to former examples.

Even though the R's did not attempt to work on problems other than undependability, there was some generalization of treatment effects as evidenced by the reduction of items checked on the Behavior Problem Checklist. They initially checked 27 items with a severity rating of 42. At the end of the program they checked only 13 items with a severity rating of 15. Fifteen items were no longer felt to be a problem, five were less serious, seven remained the same, and one additional item, short attention span, was checked. Of the thirteen personality items checked on the pretest form of the checklist, eight behaviors: doesn't know how to have fun, self-consciousness, crying over minor hurts, shyness, social withdrawal, secretiveness, depression, and aloofness were no longer felt to be a problem. It is rather difficult to explain how these changes occurred as a consequence of the behavioral program; nonetheless, his parents consistently rated him as more outgoing and socially mature. Behaviors such as attention-seeking, disobedience, uncooperative in groups, and jealousy were also no longer felt to be a problem. While five of the original nine problems classified as behavioral problems were either rated as less serious or nonexistent, the greatest change occurred in those behaviors classified as personality problems.

The R's attended 100% of the session and completed 71% of the
assigned data. Their responses on the Attitude Toward Therapy Inventory indicated that they were extremely satisfied with the overall program (4.81), the therapist (5.00), and the other group members (4.50). They felt that the entire program was helpful but that the use of positive reinforcement instead of physical punishment was most beneficial to them. As previously mentioned the R's did not make a special effort to generalize the principles learned during class to other problem areas; nonetheless, fighting, in their son was now rated as a moderate compared to an initially serious problem. Making friends was still rated as a very serious problem, but the nature of the problem made it difficult for the parents to observe directly. The problems of their other two children, enuresis, thumb sucking, and dependability seemed to increase in severity from an initial rating of very mild to moderate.

In summary, the R's were not successful in reaching their behavioral objective; however, considerable improvement in their son's social maturity was noted.

Case #19

Mr. and Mrs. S selected their eleven-year-old son as the target child during the first session. They collected baseline data on two problems: procrastination and "storming away" when angry. Mrs. S initially expressed some skepticism over the use of behavioral techniques, in particular the use of rewards which she equated with bribery. They eventually designed a program to decrease the amount of delay in showering, going to bed, getting ready for school, and doing his chores. While the S's reported that the program was somewhat successful, they did not submit any objective data to allow for statistical comparisons.

The S's attended 60% of the sessions but completed only 42% of the assigned data. They checked twelve items with a severity rating of eighteen on the pretest form of the Behavior Problem Checklist, but failed to return the posttest form. Approximately one-half of the problems checked were classified as behavioral problems: restlessness, attention-seeking, disruptiveness, temper tantrums, and irritability. The remaining problems were classified
as personality problems such as crying over minor hurts, easily flustered, preoccupation, short attention span, and excessive daydreaming.

Case # 20

Mrs. T selected her eight-year-old son as the target child during the first session. She listed moodiness, tidyness, and personal hygiene as his primary problems. She felt that the first two problems were very serious while the third one was serious. Her responses on the pretest form of the Behavior Problem Checklist revealed that she had checked twenty-one items with a severity rating of thirty. The majority of the problems were classified as behavioral problems and included restlessness, attention-seeking, disruptiveness, uncooperative in groups, hyperactivity, destructiveness, negativism, and irritability. The remaining problems were classified as personality problems. Although Mrs. T was an active participant during the first session, she dropped out of the group, so no baseline or posttest data was collected.

Case # 21

Mrs. U selected her seven-year-old son as the target child during the first session. According to Mrs. U, sitting still, bashfulness, and temper tantrums were his primary problems. She checked 27 items with a severity rating of 31 on the pretest form of the Behavior Problem Checklist but dropped out of the group after the second session, so no posttest data was collected. The items checked were almost equally divided among two clusters: behavioral problems and personality problems. Among the problems classified as behavioral problems were restlessness, attention-seeking, disruptiveness, fighting, temper tantrums, disobedience, hyperactivity, negativism, and irritability. The items classified as personality problems were self-consciousness, feelings of inferiority, easily flustered, hypersensitivity, anxiety, and tension.

Case # 22

Mrs. V selected her eight-year-old daughter as the target
child during the first session. She listed hyperactivity, fighting, and responsibility as her primary problems. Mrs. V attempted to collect baseline data on all three behaviors but she felt that the data was unreliable because her daughter was spending so much time out of doors. Mrs. V checked 29 items with a severity rating of 44 on the pretest form of the Behavior Problem Checklist but failed to return any of the posttest data. The majority of items were classified as behavioral problems and included such behaviors as restlessness, attention-seeking, disruptiveness, boisterousness, fighting, temper tantrums, irresponsibility, disobedience, hyperactivity, impertinence, profane language, and irritability. The remaining items were classified as personality problems: self-consciousness, feelings of inferiority, lack of self-confidence, easily flustered, tension, preoccupation, laziness, jealousy, and passivity. She dropped out of the group after the second session because she felt that the information that was being presented was the same that she had received from a local evaluation center after they evaluated her daughter for hyperactivity.
CHAPTER V
DISCUSSION

This study attempted to compare the relative effectiveness of a Specific and a General approach to child management techniques. Although all groups showed improvement relative to their own baseline measures, no significant statistical differences were found to exist between the two approaches as measured by Behavior Problem Checklist scores, Target Behavior Reduction scores, Attempts at Generalization, Attitude Toward Therapy scores, attendance, and completion of assigned data. As such there is no evidence to suggest that one method of training was superior, relative to the other. Since there were no significant statistical differences between the two approaches, the discussion that follows will include an integrated presentation of both the statistical and clinical data in terms of treatment effectiveness, methodological problems, and suggestions for future research.

Both the General and Specific approaches seemed equally effective in modifying a variety of problem behaviors in children ranging in age from two-and-one-half years to thirteen years. A female was selected as the target child in only five cases, so it was impossible to ascertain if there were any differences in the effectiveness of the two approaches based on the sex of the target child. The majority of problems selected as the target problem were mild in nature and included such problems as negativism, name-calling, fighting, swearing, getting to bed on time, responding to parental requests, nailbiting, and doing chores. As parents in both groups had similar educational and socioeconomic backgrounds, these variables probably did not affect their success in this program. Salzinger, Feldman, and Portnoy (1970) had previously noted the relationship between education and success in the program. They concluded that parents with poor educational backgrounds were unable
to grasp abstract principles. Studies that emphasized the direct teaching of behavioral skills as opposed to abstract principles failed to find any relationship between parents' education, intelligence, or socioeconomic status, and success in the program (Hirsch and Walder, 1969; Mira, 1970). Parents' educational and socioeconomic background in the present study did not cover a wide enough range to determine if these variables could differentially affect their success in either the General or Specific group. On the basis of past research, it could be inferred that parents with a poorer education and socioeconomic background might be more successful in a group emphasizing a specific approach, since they apparently have difficulty grasping more general principles. This hypothesis certainly is in need of further investigation.

Of the parents who attended over 60% of the sessions, the majority were able to reduce the frequency of the target problem by approximately 60% by the end of the program. There was little mean difference between the two approaches in terms of the percentage of reduction; however, the Specific group was more variable in their responses to treatment. It appears that the Specific approach was quite effective with some parents and ineffective with others, in contrast to the General approach which achieved more uniform results. This variability can be partially attributed to the two extreme scores (100% and -15%) in the Specific group. Because of the smallness of the sample, these scores markedly affected the group as a whole; therefore, a much larger sample is needed to determine if these are just chance occurrences or that there is in fact a true difference between the groups.

Several of the parents who achieved only mild success with the behavioral program indicated that despite this apparent lack of success, that they were quite satisfied with the program. One parent indicated that while the actual number of temper tantrums had not decreased dramatically, there was a marked decrease in the severity of those behaviors. Therefore, the target behavior reduction data did not accurately reflect the improvement in that particular
problem. Perhaps in this particular case it would have been beneficial to record the duration of the temper tantrums in addition to the frequency count. Another parent indicated that as their child improved they became more aware of minor problems, which they were unaware of in the past and consequently had not rated as problems. Again, their ratings did not reflect the extent of their success with the program since they had become more accurate observers of their child's behavior and thus were more strict in their ratings. Their current ratings consisted primarily of minor problems which had gone unnoticed in the past. Once again, while the actual occurrence of the problem behavior had not decreased dramatically, there was a marked reduction in the severity of the problems. These parents also mentioned that they were more pleased by the increase in the frequency of their son's appropriate behaviors as they were willing to tolerate occasional misbehavior.

A rather unique problem arose with several parents, namely that since the problems that they selected to work on were minor in nature and occurred at a relatively low rate; there was little room for improvement. The selection of a relatively minor problem by the parents, was partially a reflection of the leaders desire to work on well defined and easily observable problems; nonetheless, few parents had children with severe problems to begin with. The failure to achieve statistical significance with low frequency problems is consistent with the reports by Patterson and his associates who concluded that treatment failure may be more prevalent in those target behaviors that occur at a very low base rate. For example, Reid and Hendriks (1973) found that even during treatment 57% of the low base rate problems resulted in failure compared to 18% of the social aggression cases which occurred at a much higher rate. It appears then that the potential for improvement is the greatest in those problems that occur at a relatively high rate, which may explain the lack of success for several cases in this study as they originally occurred at a relatively low base rate.

All parents demonstrated a reduction in the number of items
checked on the Behavior Problem Checklist. Although not statistically significant, because of the small sample size, the Specific group did show a trend toward more generalization as measured by the Behavior Problem Checklist. More problems were checked for three of the six general group children while there were no increases in the specific group children. Furthermore, the net decrease in problems was more than four times as great for the specific subjects. Again no conclusions regarding treatment effectiveness can be made because of the smallness of the sample.

An informal analysis of the changes represented on the posttest form of the Behavior Problem Checklist, indicated that the majority of change occurred in those behaviors classified as mild behavioral problems (e.g. fighting, disobedience, impertinence etc.). Since most parents selected a mild behavioral problem as the target problem, these changes probably represent a generalization of treatment effects. Several parents also reported a variety of personality changes in their child, namely that they perceived their children as less anxious, shy, and more socially mature. It is rather difficult to explain these changes as a consequence of the behavioral program; nonetheless, several parents reported these changes. A decrease in feelings of inferiority, shyness, etc. may be a reflection of a child's increased confidence in his skills as a result of having been positively reinforced for those behaviors. It seems unlikely that any major personality changes took place in the course of six weeks. It may be that a "halo effect" was occurring i.e. as parents saw a positive change in the target area, they were more likely to generalize and view the child favorably in other areas.

It was also noted that less generalization of treatment effects seemed to occur in those parents who selected a relatively minor problem in contrast to those parents that chose a more difficult and usually complex problem (e.g. negativism). Theoretically, it stand to reason that the greatest generalization should occur in the most complex problems because they have the broadest range of influence. As with the Target Behavior Reduction, some parents
were unable to demonstrate generalization of treatment effects because they had checked so few problems on the pretest form that there was little room for improvement.

It was noted that the parents who dropped out of the group had checked a significantly greater number of problems on the Behavior Problem Checklist pretest. The dropout of these parents did not appear to be a function of group assignment as there were an equal number of dropouts in both the General and Specific groups. These parents did not appear to be significantly different from the other parents based on the pretest demographic information; yet all were reluctant to collect baseline data and to design and implement a program. Since all of these parents eventually dropped out of the group, it would be desirable to predict in advance who these parents are and to take some steps to prevent their dropping out since they appeared at least on the basis of the Behavior Problem Checklist scores to be the parents most in need of help.

The parents' response to the Attitude Toward Therapy Inventory indicated satisfaction with the program. At the end of the inventory parents were asked what aspects of the program were most beneficial to them and what changes, if any, they would make in the program. In order of importance the parents in the General approach group stated that the use of positive reinforcement as opposed to punishment was the most beneficial to them (five parents). Five parents commented on the exposure to a variety of different methods and examples of handling problem behaviors. One parent commented on the importance of charting and setting up specific goals to work for. Regarding changes in the program, two parents suggested a more practical orientation and less emphasis on terminology. Two parents desired more discussion and interaction among the members. One parent suggested to extend the program while one parent who had some previous exposure to learning principles, became bored and suggested that the material be presented in one session. Another parent suggested that future groups might include parents with children of the same age and with
similar problems.

The responses of the Specific groups were similar. Four parents commented on the benefits of positive reinforcement as opposed to nagging. Two parents were impressed by the use of shaping and a step-by-step approach to changing undesirable behaviors. One parent commented on the tremendous influence her behavior has on her child, a fact she was unaware of prior to the group. Four of the parents enjoyed the group discussion and interaction among members, nevertheless, they all desired more of it.

In summary, all parents seemed impressed with the beneficial effects of positive reinforcement as opposed to punishment or nagging. Those parents who still felt a need for punishment were likely to use a time-out procedure. Shaping and charting were also mentioned as being beneficial to most parents. Parents in the General group were impressed by the variety of approaches and examples of changing problem behavior; however, they seemed desirous of a more practical approach which may be interpreted as more emphasis on a specific problem. The parents in the Specific group seemed contented with the emphasis on their specific problem and did not seem to have a need for more general examples. While parents in the General group seemed more desirous of group discussion and interaction, both groups felt it was beneficial and wanted more of it.

Although terminology was not stressed in the program, the investigator did check to see which terms the parents understood and which they seemed to have the most difficulty with. Almost all parents were able to grasp the concept of positive reinforcement, time-out, shaping, modeling, cueing, and satiation. The most confusion seemed to arise between extinction and negative reinforcement. Only two parents objected to the use of terminology. One parent was working on her doctorate in communication; the other parent was less educated than the majority of the other parents.

Behavioral procedures in this study have been shown to be successful in producing changes in behavior. There is also some evidence to suggest some generalization of these effects to non-
targeted behaviors in the target child and the siblings of that child. Regarding the generalization of behavioral principles, parents were asked if they attempted to use the child management principles learned in class on: 1) problems of the target child not worked on in class; 2) problems with other children in the family; or 3) shared these techniques with friends or other family members. Four parents in the General group, compared to three in the Specific group, indicated that they successfully generalized behavioral principles to other problems they were having with the target child. Three parents in both groups considered their attempts to use behavioral principles with other children in the family to be successful. Four parents in the General and three in the Specific group shared their knowledge of behavioral principles with friends or other family members.

Previous data suggested that the inability to generalize the behavioral principles may primarily reflect the intensity of focus by the parents on the major areas of concern to them. In other words, if they do not view the problem as serious they may not attempt to change that particular behavior. Results of this study suggest that when parents are restricted to working on one problem behavior during the course of the program they do successfully generalize the behavioral principles learned during the program. While limiting parents to working on only one problem during the course of the group does not guarantee that the remaining problems will be viewed as serious and worthy of intervention, it may increase that probability.

Theoretically, parents in the Specific group should have acquired well-learned patterns of dealing with a specific behavior and parents in the General group, because of exposure to a variety of problems should have a wider range of techniques to draw upon when attempting to generalize behavioral techniques to new problems. The question to be answered is whether a practice effect with a specific problem or exposure to general principles facilitates the generalization of child management principles to new situations. Results of this study suggest that while there was a nonsignificant
trend in favor of the General group, there was no true difference in generalization between the two groups. This suggests that regardless of the approach used in training, both sets of parents seemed to have learned a general set of child management skills rather than a specific method of dealing with a specific child as might be expected with the specific group.

In future studies it would seem desirable to pay closer attention to the nontargeted behavior of the target child and to the siblings of that child. Siblings of the target child could be randomly assigned to either an involved or noninvolved group. Parents in the involved group would receive help in generalizing the principles learned in the sessions to a sibling, whereas parents in the noninvolved group would be left to generalize these principles on their own. Both sets of parents would then be closely monitored in their attempts to deal with new problems either with the target child or his sibling. This should provide a better test of the degree to which parents learned the effective strategies of child management techniques.

Although the attendance and handing-in of assignments in both groups was consistent with most of the studies previously reviewed, they were not as high as in the contingent groups of Peine and Munro (1970). Parental commitment to the program seemed to be a minor problem. The charging of a fee to attend the classes and its subsequent reimbursement as a function of class attendance was not feasible in this study, although it may be a desirable procedure. Eyberg and Johnson (1974) suggested that while parents in their noncontingent groups have more difficulty in measures of cooperation, their ability to utilize behavioral principles remains unaffected. Nevertheless, group discussion and interaction seems to be important to its members; if members terminate prematurely or are lax in turning in their assignments, this could affect the satisfaction of the other members.

Another factor to be considered in viewing the attendance and completion of assignments by the parents is their initial commitment to the program. Most of the parents described their child
as having mild behavior problems in contrast to much more severe problems described by other investigators. Since the parents involved in this study viewed their child's problems as being relatively mild, they may well have been less committed to changing that behavior.

In summary, the General and Specific approaches appear to be equally effective in terms of treatment effectiveness, as such there is no evidence to suggest that one approach was superior relative to the other. Several hypotheses can be advanced to account for this. First, it is conceivable that the two training programs were not materially different from each other. It is the investigator's opinion that this was not the case. The lesson plans were substantially different for the two groups and this plan was closely adhered to. Furthermore, in the discussion portion of the training, parents in the General group did not seem inclined to talk about problems specific to their child and parents in the Specific group were not inclined to discuss more general problems. A closer analysis of the content of group discussion would be necessary to bear this out. It is possible that by exposure to a large number of problems in the General group, the problem of concern to a particular parent may have been alluded to; however, there was no opportunity to work on that problem in any great depth. On the other hand, parents in the Specific group may have been given some exposure to more general problems by being involved in the change procedures for the other parents in the group. Nonetheless, this exposure was minimal because the groups were relatively small and parents were restricted to working on only one problem for the duration of the sessions. Although there may have been some overlap between the two groups, it does not appear sufficient to account for the lack of difference between the groups.

Second, as there was a nonsignificant trend in favor of the Specific group in terms of Behavior Problem Checklist scores, Target Behavior Reduction scores, and Attitude Toward Therapy scores, a much larger scale investigation increasing the number of parents at least tenfold might be initiated to see if these trends might
develop into significant results. The planned total sample of 40 parents was reduced to 16 because 16 parents failed to attend the first session and 8 others dropped out after the second session. The initially high drop-out rate experienced in this group and in other groups reported in the literature points to the necessity of screening parents prior to their inclusion in a child management group and to develop some predictive measures of the extent of parental success in the program. To date, few studies have screened prospective group members for anything more than sex, age, socioeconomic status, or the presence of gross psychopathology. Some investigators have suggested that verbal learning approaches do not seem to be as effective with poorly educated parents as the direct teaching of behavioral skills. The emotional problems of parents, especially those of single parents living in extreme poverty also seem to interfere with the acquisition and maintenance of behavioral skills. Neither of these variables could account for the high drop-out rate experienced in this study, as the parents were fairly well educated and none were living in extreme poverty. This suggests a need to investigate other variables which could differentially affect the level of parental success in the training program. Areas in need of further investigation include the method of training, type and severity of the target child's problem, composition of the parents group, attitudes toward child rearing, personality characteristics of the parents, and whether the parents are seeking help voluntarily or are being referred or pressured by another agency. To date, the only promising techniques designed to maintain the parents interest and cooperation in the program has been the use of contingency management. The use of extrinsic reinforcement in the form of fee reduction, individual therapy time etc., seems to be a powerful incentive especially for parents in lower socioeconomic classes and in single parent families where they have no one to reinforce their efforts. While the use of contingency management seems to be promising technique for maintaining the interest and cooperation of parents already involved in the group, it contributes little to the understanding of why some
parents fail to attend the first session. In this study, the drop-out rate among those parents, may be partially attributed to the fact that after filling out the pretest forms they decided that their child was not having as serious a problem as they had thought. Several parents could not even think of a problem that they would be willing to work on with their child. The parents reluctance to work on a specific problem in the group may be accounted for in two ways: 1) the realization that the problems were in fact not as serious as they had suspected and therefore did not warrant their attention, even though the classes were not represented as being just for parents of children with serious problems; 2) a reluctance on the part of the parents to become actively involved in changing their child's behavior. Some parents seemed to want a quick and easy method of changing their child's behavior and seemed unwilling to expend the energy involved in setting up a program with daily maintenance. In view of the high drop-out rate of these parents and the failure of some parents who completed the program to successfully modify their child's behavior, it seems highly desirable that some predictive measures of the extent of parental success be developed. Until those measures are developed and empirically tested, groups should be set up to be sufficiently large enough to offset the drop-out rate.

A second interesting problem arose in the week parents collected baseline data because of a sudden shift in the weather. Parents had signed up for the groups at the end of a North Dakota winter. During the first week of the group, in which the parents collected baseline data on the target behavior, the weather changed dramatically and, for the first time in months, children were able to play outside for long periods of time as the snow had melted and the temperature was in the mid 60's. Many parents reported that they did not feel that the baseline data they collected represented the true rate of occurrence of the problem behavior. For example, those parents that wanted to change the frequency of fighting in their children found that this behavior was less prevalent or, at least, they were not able to observe it while their children were
outside. Many parents who had difficulty getting their child to
go to bed on time found that after playing outside in the fresh
air, their child was tired and getting to bed was no longer a
problem. Fights between siblings and minor disagreements between
parent and child became less noticeable with the child spending
more time outside. Some parents felt that their child deserved
to be outside after the long winter and were less demanding of
them or less insistent that they do their homework or chores prior
to going outside. Since the occurrence of the problem behavior
was so low, many parents concluded that their child really did
not have a problem, and that perhaps they had exaggerated its'
frequency; consequently, they were not as invested in changing
the particular behavior. This phenomena seemed to be particularly
prevalent in relatively mild behaviors, occurring at low frequencies;
however, the effect of the weather on more serious problems would
probably be minimal. The data collection was extended another
week to get a more accurate baseline. The arrival of spring in
many climates would not be considered an extraneous variable to
be accounted for in the research; in the case of North Dakota
winters, it can become an important variable to be taken into
consideration. In addition to the noticeable effect that the good
weather had on the children, it is possible that some parents may
have been reluctant to sit in a classroom when they could be out
enjoying the good weather themselves.

In the course of the program it became apparent that there
was a wide range in the level of interaction among the four groups.
All of the groups were equivalent in terms of the demographic
information collected, so it is highly unlikely that any of these
factors contributed to the differences in interaction between the
groups. The overall interaction among group members was minimal
in the Monday group as compared to the Thursday group for example;
yet both groups were equally effective in modifying their child's
behavior and their satisfaction with the program. The difference
can probably not be attributed to the General versus Specific
approach per se, for the Wednesday group interacted much more than
the Tuesday group. Some groups appeared to be more cohesive than
others, the reasons for which are unknown. A closer analysis of the group dynamics might be advisable to determine if the level of interaction can affect outcome.

Another variable that might be worthy of investigation is the presence of one or more skeptical members. One parent each in the Tuesday and Wednesday groups expressed initial skepticism during the first session in the presence of the group, regarding behavior principles. Both parents said something to the effect that they had tried these principles and that they did not work. While there were no significant differences between either the Monday or Wednesday groups and the Tuesday or Thursday groups in terms of final outcome, there was a noticeable difference in the drop-out rate in the Tuesday and Wednesday groups. It appears that while the members who completed the program were not affected by the expression of skepticism by another group member, a significantly higher proportion of members terminated after the first session. As training progressed and as parents began to bring in evidence that the behavioral principles were effective, there appeared to be a noticeable change in the response by other members, in that even though they had not experienced success personally, they seemed more willing to try the techniques. This group contagion effect might be escalated by utilizing experienced parents as trainers so that they could give testimonials of their own experiences in the initial phases of training.

Parents may be more willing to accept the word of a fellow parent regarding the effectiveness of child management techniques. If this is true, than it may be advantageous to employ experienced parents as trainers for new members. This approach has been utilized by Ora (1971) and Wagner and Ora (1970) and found to be so effective, that they are phasing out the use of professionals and placing greater reliance on experienced parents in the training of incoming parents in the appropriate use of behavioral principles. While there is no conclusive support for the idea that skepticism expressed by a group member in the early sessions, may affect the subsequent drop-out rate in that group or that the use of
experienced parents as trainers may offset this skepticism, it certainly seems to be worthy of further investigation.

Another area relating to the initial skepticism of members also bears mentioning. Several group members expressed concern over the leader's credentials, not as a professional, but as a non-mother. As the leader does not have any children, some members seemed hesitant to accept her advice. Several parents pointed out that had their leader been a male, regardless of whether or not he had any children, they would have been even more skeptical. They surmised that a female even without children would "instinctively" know more about child management. As before, once the parents experienced some success in utilizing the behavioral principles, the leader's credentials no longer seemed as important. In view of the fact that many group leaders are probably male and many of the women may be childless, a further investigation of this topic seems relevant since some group members may be initially more impressed by the practical knowledge of their leaders than by their professional experience.

To date, few studies have investigated the effect of leader variables on group outcome. Gabel (1972) did note that in reflective child management groups, the differences between groups could be attributed to the quality and focus of orientation of the leader. Tavormina (1975) however, found leader variables to be less important in behavioral groups and concluded that child management techniques could be applied with similar results regardless of the leader. While behavioral groups may be less susceptible to leader influences, it certainly seems to be an area in need of further investigation.

In summary, this study has found that there are no statistically significant differences between a General and a Specific approach to child management training. Although the approaches differ in focus, they appear equally effective as intervention strategies. Both approaches were comparable in terms of producing change in the target problem, Behavior Problem Checklist, member satisfaction with the group, measures of cooperation, and attempts at generalization.
Even though this study has investigated two approaches to child management training, there is a need for further research into the identification of the critical variables in child management training programs, including a comparative analysis of other training approaches and their ability to produce results relative to other approaches. Modeling, group discussion, lectures, laboratory training techniques, role-playing, and programmed textbooks are all techniques that are in need of further investigation. Future research should also make an effort to determine which techniques are most effective with which types of parents and childhood problems. Because of the small sample size and homogeneous group of parents and target problems in this study, it was impossible to ascertain if either of the approaches were more effective with certain types of parents or childhood problems. Both the General and Specific approaches appeared equally effective in modifying a variety of mild behavioral and personality problems in a typically middle class population. While there is no evidence to suggest that either approach would be ineffective with more severe problems or with parents from a different socioeconomic status, it is the investigators opinion that parents with poor educational backgrounds may have difficulty grasping general behavioral principles and may initially profit from in depth training on a specific problem especially if the problem is serious in nature. To date, this hypothesis has not been tested, but it certainly seems to be in need of further investigation.

The results of this study have also suggested that in future studies leader variables, group dynamics in terms of interaction between the leader and members, and among the members themselves, effects of skepticism by group members, possible predictive measures of the extent of parental success, and the combination of a General and a Specific approach should also be investigated. Because both approaches were equally effective, it seems logical to combine the unique characteristics of each approach into one integrated approach. Such an approach would include the advantages of a concentrated emphasis on a specific problem and the exposure
to a wide variety of problem behaviors. The effectiveness of such an approach needs to be empirically tested, to see if it is more effective than either the General or the Specific approach alone.

This study represents an important contribution to the child management literature, since in his review of the literature O'Dell (1974) found that only four studies met all of the criteria that he set forth as essential for a research study in child management: basic demographic information, a description of the target behavior, a description of the training program, baseline data on the target problem, the measurement of observable behavior, the acquisition, maintenance, and generalization of behavior changes, cost factors, and the social importance of the study. This study was able to meet all of those criteria with the exception of the maintenance of treatment effects as a follow-up study was not feasible.

In addition to making a contribution to the growing literature in the area of child management training, this study has also served an important clinical function by training parents to serve as behavior modifiers for their own children and giving them a tool with which to deal with and prevent future problems. It remains to be empirically tested whether or not parents who have attended the classes are better equipped to deal with the future problems in their children when and if they arise and whether or not their children have fewer problems in the future. In any event, training parents to act as behavior modifiers for their own children and giving them a tool with which to deal with future problems represents an economical and feasible plan to meet the growing demands for mental health services and also brings us a step closer to a preventive model of mental health.
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