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A comparison of the effects of three parent education programs STEP PAT and EP on the perceptions and interactions of low income Head Start mothers and their preschool children.

Ronald Charles Larrivee

University of Massachusetts Amherst

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A COMPARISON OF THE EFFECTS OF THREE PARENT EDUCATION PROGRAMS STEP PAT AND EP ON THE PERCEPTIONS AND INTERACTIONS OF LOW INCOME HEAD START MOTHERS AND THEIR PRESCHOOL CHILDREN

A Dissertation Presented

By

RONALD CHARLES LARRIVEE

Submitted to the Graduate School of the University of Massachusetts in partial fulfillment of the requirements for the degree of

DOCTOR OF EDUCATION

February 1982

School of Education
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This study is dedicated to my parents and to their children's, children's, children.
ACKNOWLEDGEMENTS

The parents, children and staff members of the Head Start program in Taunton, Massachusetts were extremely helpful and cooperative throughout this research project. Thanks especially to Ms. Marilyn Machado, the Head Start family intervention specialist, for her contagious enthusiasm and extra efforts on my behalf.

Thanks to the staff of the media center at Bristol Community College in Fall River, Massachusetts and particularly Hank and Donna, whose time and effort in supplying audio-visual equipment was much appreciated.

Also, thanks to the members of my dissertation committee, M. Lawrence Rawlings, Ph. D., Bailey Jackson, Ed. D. and chairperson Ena Nuttal, Ed. D. who helped make this process a positive learning experience with their pertinent feedback and positive attitudes. Thanks especially to Ena whose sense of humor, encouragement and support was a constant source of motivation.

Finally, thanks to Andrea Tremaglio, my friend and my wife and friend, Mary. Many hours were spent by Andrea and Mary, my "support group" members, proof reading, coding and helping to prepare this dissertation.

Thanks especially to Mary for putting up with my eccentricities and shortcomings during the past two years, yet still remaining a caring and loving person.
ABSTRACT

A COMPARISON OF THE EFFECTS OF THREE PARENT EDUCATION PROGRAMS STEP PAT AND EP ON THE PERCEPTIONS AND INTERACTIONS OF LOW INCOME HEAD START MOTHERS AND THEIR PRESCHOOL CHILDREN

February 1982

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This study investigated the effects of three parent education programs on the knowledge and perceptions of low-income, Head Start mothers. Another area researched was the behavioral interactions of mothers and their three to five year old, preschool and kindergarten aged children.

Parents were involved in one of three treatment groups. The STEP group, used the Systematic Training for Effective Parenting program (Dinkmeyer & McKay, 1976) a largely Adlerian based intervention. STEP was compared to the PAT group which used the Parents are Teachers (Becker, 1971) text, a behavioral parent training manual and to the EP group, which was involved in the Exploring Parenting program, a more general parent education program developed by the Head Start Bureau in the former
Department of Health, Education and Welfare.

The variables examined were the effects of the training on the (a) parents' acquisition of concepts and skills, (b) parents' perceptions of their children's behavior and (c) the behavioral interactions of parents and children who were videotaped in a laboratory environment. Measures used in this study included a concept evaluation instrument, developed for each group to examine the effects of training on the parents acquisition of concepts and skills.

Another instrument used was an adaptation of Fears' (1976) parent questionnaire to examine the effects of the training on the parents' perceptions of their children's behavior. Finally, the videotaped interactions of mothers and children were scored by two observers using the Response-Class Matrix developed by Mash, Terdal and Anderson (1973). All measures were administered during pretest and posttest conditions.

Results showed that parents in all three treatment conditions learned the concepts and skills presented in their respective interventions. Parents involved in the STEP and PAT treatment conditions perceived their children's behavior as being more positive than parents who
received the EP treatment. Findings also indicated that parents participating in the STEP intervention showed more significant results at the end of treatment in their behavioral interactions with their children, than parents involved in the PAT or EP treatment conditions. STEP parents' responses were more positive and less negative in their interactions than the other parents involved in the study in the posttest condition.
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CHAPTER I
INTRODUCTION

The role parents play in the development and well-being of their children has been the focus of much attention from educators, counselors, and others in the helping professions for many years. The Commonwealth of Massachusetts law, Chapter 766, and the Federal Government law, Public Law 94-142, recognized the need for involvement of parents of special needs children in developing their children's individual educational plans with public school personnel.

Recently, in public schools and other institutions, there has been a trend toward teaching parents different child-rearing philosophies and techniques in parent education groups (Gordon, 1970; Patterson, 1975). Other mental health professionals have trained parents to be therapists for their own children (Arnold, 1978; Ginsberg, Stutman, & Hummel, 1978; Guerney, 1964).

The goals of these parent education procedures have been reported as:

(a) helping parents to become more familiar with basic concepts of child growth and development; (b) helping them clarify their own role and that of their children; and (c) increasing parental understanding of the complexities of everyday situations to enable
them to make better management decisions.

(Tavormina, 1974, p. 827)

The major assumption here is that increasing parents' concepts of child growth and development will help improve their child-rearing behavior and consequently the behavior of their children.

The purpose of this investigation is to study the effects of three parent group education programs. The focus of the study attempts to get us closer to answering the following questions: (a) whether the parents are able to demonstrate increased knowledge of the child-rearing principles to which they have been introduced, (b) whether the parents perceive positive behavioral changes in their children at the end of their group participation, and (c) whether there are observable differences in parent-child interactions in a laboratory setting after the intervention.

This chapter will present background information relative to parent education along with a rationale for parent education courses. Important terms will be defined and experimental questions will be presented which are relevant to this investigation.

Background Information

Although packaged parent education group materials are a relatively recent innovation, parent education groups
have existed in this country since the early 1800's. The earlier groups were called Maternal Associations and they met to discuss common child-rearing concerns (Brim, 1959, p. 323). Frazier and Matthes (1975) cited that although these groups have long been established, "efforts to help individuals develop more effective relationships with their children have increased consistently over the past 75 years" (p. 31).

**Rationale for training.** In 1932, at the White House Conference on Child Health and Protection, Gruenberg stated:

> Parent education is a manifestation of the concern which adults normally feel for the welfare of their children . . . there is, therefore, no need to attempt a detailed justification of parent education.

(p. 16)

Similarly, in its Report to the President (1980), the U.S. National Commission on the International Year of the Child suggested that

services should focus on prevention, not crisis. In many cases, family support services are mobilized only when problems have reached crisis proportions. Often they serve to promote rather than prevent the institutionalization of children. When services are available to help keep a family intact, they often move into action too slowly to be of real value. . . . Parents today feel they need support and specialized
knowledge to deal with the changing needs of their children at different stages of their growth, to counter the problems of alcoholism, crime, and drug abuse, and to understand better... other outside influences on their children. (p. 80)

We can see that parent education has long been recognized as a rational and responsible undertaking in our society. Until recent times, however, education for parenting has been the exception rather than the rule.

**Parent training.** Dr. Thomas Gordon, author of *Parent Effectiveness Training* (1970), maintains that "Parents are blamed, but not trained. Millions of new mothers and fathers take on a job each year that ranks among the most difficult anyone can have. ... Yet, how many parents are trained for it" (pp. 1-2)? Saul L. Brown, who concurs with Gordon says, "the entire parenting process, so intricate and so much in need of profound and careful reflection, is largely taken for granted" (Arnold, 1978, p. 22).

Others, such as T. H. Bell, former U.S. Commissioner of Education, citing many social problems as his major concerns wrote in 1975:

There is evidence that all too many people are approaching parenthood with a dangerous lack of knowledge and skill. The result is that many children are losing out on what ought to be an undeniable right—the right to have parents who know how to be
good parents, parents skilled in the art of "parenting". . . . Let us accept without reservation that trained parents are every child's birthright and a sine qua non of our society. (p. 272)

In order to help realize this goal, the Office of Education joined with the Office of Child Development to implement a major public school program oriented toward improving the competence of teenage boys and girls for becoming parents (p. 274).

Current social and family problems. The Report to the President from the Children's Advisory Panel of the U.S. National Commission during the International Year of the Child suggests that adolescent pregnancy, alcoholism and drug abuse among the young, child abuse and neglect, and teen-age suicide are a result of the communication gap between adults and youth. They define communication as "the ability to effectively express our own feelings, ideas, emotions--and to understand and comprehend those of others" (p. 58). The communication gap therefore could be defined as the inability or reluctance of parents and children to express their feelings and ideas, or to understand the others' feelings or ideas. The following statistics suggest there is a cause for concern which certainly lends credence to the Advisory Panel's recommendations.

Suicide. Though the country's suicide rate has not
varied much for the entire population over the past 50 years, the suicide rate for adolescents has tripled in the past 20 years (Kamisher, 1978, p. 1). "Some experts, in fact, are increasingly concerned about the suicide rate among 10- to 14- year-old children, which has risen nearly as fast as the rate for 15- to 24- year-olds" (Teen-age Suicide, 1978, p. 75).

In a study of adolescent and young adult suicide in the United States, one of the major causes listed was a lack of family stability and a chaotic childhood. The researcher concludes that "the current changing status of the American family may compromise the adolescents' process of identity as well as the parents' ability to recognize and help their teenagers with their problems before suicide becomes an alternative" (McAnarney, 1979, p. 768).

In Too Young to Die (1976) Klagsbrun suggests that more than anything else, family background and experiences during the early years of life play a major role in creating suicidal wishes among young people. Study after study has found that a large proportion of young suicide attempters and completers came from disturbed or disrupted homes, lacking in stability and support. (p. 137)

One such study conducted by Dr. Michael Peck and Dr. Robert Litman found that 9 out of 10 suicidal youths felt as though they were not understood or appreciated by their
families. "Those who took their lives usually thought they had failed because they could not live up to their parents' dreams" (Kamisher, 1978, p. 1).

Adolescent pregnancy. "A national epidemic of teenage pregnancy exists and 2 out of 3 pregnant girls drop out of school. . . . Teenage pregnancy not only harms the adolescent parents but also their child" (U.S. Commission on the International Year of the Child, 1980, p. 57). Yearly more than 200,000 babies depend for their nurturance and care upon mothers who are between 15 and 17 years old; an additional 11,000 babies are born to mothers below the age of 15 (p. 92). Since about 90% of unmarried teen-agers keep their babies today rather than give them up for adoption, teen-age single parenthood is a growing phenomenon (Chillman, 1979, p. 492).

This statistic in itself is a cause for concern in that studies of teen-age parents found them to be expecting too much of their children too soon, setting unrealistic standards, and using physical punishment to force their children to meet their expectations (de Lissovy, 1973, pp. 22-25; Mercer, 1980, p. 26).

Divorce and single parent families. Since 1900 the divorce rate has increased by 700%. Recent statistics show that in 1966 one divorce was granted for every four marriages performed, and that by 1976 the ratio had changed to one in every two marriages (Wallerstein & Kelly, 1979,
In 1978 Bernard reported that divorce had doubled in the last 10 years leaving 20% of all elementary school children living with divorced parents. These statistics climb to between 40 and 50% of kindergarten and first grade children (p. 188). In 1978, 11 million American children lived in single parent families; in the 1980's, if the current trend continues, 4 out of 10 children will live in single parent families (U.S. Commission on the International Year of the Child, 1980, p. 66).

Although the traditional value of keeping the family together at all costs may not be the answer to this problem, the current trend is alarming in view of the following study. Concerning the effects of divorce on children and families, Wallerstein and Kelly (1979) comment from the results of their five year study:

56 per cent of the children surveyed did not consider their postdivorce family to be an improvement over their predivorce household. . . . Although most of the parents surveyed felt their lot had considerably improved . . . the children and adolescents studied did not as a group experience a comparable improvement in psychological health in the years following parents' separation. (p. 473)

Despite the fact that there is no evidence that a cause and effect relationship exists between broken homes and serious familial problems, a study conducted in 1974 showed that
"broken homes are one and one-half to two times more frequent among delinquents than among non-delinquents" (Haskell & Yablonsky, p. 100).

Physical and sexual abuse. More than one million children in the U.S. are victims of child abuse each year. Deaths are estimated between 2,000 and 5,000 per year with another 10,000 being severely battered as a result of child abuse. In addition, estimates of sexual abuse are placed between 50,000 and 200,000 children per year (U.S. National Commission on the International Year of the Child, 1980, p. 92).

Discussion. Problems such as these have led Bell (1975) and other writers (Becker, 1971; Dodson, 1970; Dreikurs & Soltz, 1964; Gordon, 1970; Redl, 1966; Shedd, 1970) to develop or advocate parent education programs. Clarkson (1978) suggests that parent education programs should be available in the public schools for parents of school age children (p. 8). Others such as Hawkins (1972) believe compulsory training for parenting should be carried on in the schools for children who are not yet parents (p. 30). Bizer (1978) cites other reasons for parent training including growing dissatisfaction with psychotherapy, shortages of trained mental health personnel, and "the awareness that effective parenting is a learned behavior" (p. 3).

Research in the field of parent education has revealed mixed results with respect to significant changes in
children's behavior as a result of their parents' training (Cox & Matthews, 1977, p. 358). Although some programs have been field tested or appear to be based on sound psychological principles, empirical evidence of their effectiveness is missing. For example, Bernal and North (1978), after surveying 26 behaviorally oriented parent training manuals concluded:

The most crucial information, however, is whether there is any evidence at all that the manual will work. The dearth of manual evaluation efforts fails to reflect the scientific training of the behavior therapists who wrote them. (p. 542)

The purpose of parent education is to provide parents with child-rearing skills that will enhance the quality of family life. Most programs developed to build these skills, however, have not produced results that clearly indicate their effectiveness. Consequently, this study was oriented toward comparing several parent education programs currently in use in schools, clinics, and other educational settings.

**Purpose and Description**

The purpose of this study is to compare the effectiveness of the Systematic Training for Effective Parenting (STEP) program (Dinkmeyer & McKay, 1976), a largely Adlerian-based program and two other programs. Another program is Becker's Parents are Teachers (PAT) (1971), and the
final program is entitled Exploring Parenting (EP) (U.S. Department of Health, Education & Welfare, 1978). Parents are Teachers stresses behavioral child-rearing skills and principles, whereas Exploring Parenting is described as a program oriented toward helping parents explore the infinite possibilities in child rearing.

The intent of this study is to investigate: (a) the acquisition of information about parent education by parents, (b) parental reports regarding parent-child interactions at the beginning and end of the intervention, and (c) behavioral interactions between mother and child in a laboratory environment.

Experimental questions. The intent of the study is to compare these three programs to each other by addressing the following questions:

1. Will parents involved in the study show increased knowledge of the information presented in their respective study groups?

2. Will parents report improvements in their children's behavior following their involvement in the parent education groups?

3. Will the behavior of parents and children in a laboratory setting indicate improved relationships at the end of the parent education groups?

Terminology. The following definitions of terms will be
helpful in understanding the study.

**Parent.** This term refers to an adult who is living with and responsible for the rearing of a child. This could include foster parents and/or adoptive parents.

**Parent education, parent training.** This refers to an organized program which involves parents in discussions and activities oriented toward helping them learn more about child rearing, children, and themselves as parents.

**Behavioral parent education program.** This refers to parent training based on the principles of social learning theory.

**Adlerian parent education program.** This refers to parent training based on the principles advocated by Alfred Adler and Rudolf Dreikurs in the constructs of Individual Psychology.

**Summary**

For many years professionals have advocated training or educating parents to help them prepare for or deal with their familial responsibilities. Currently, studies of contemporary problems in our society appear to support the need for programs that may enhance the quality of family life. In response to this need, many programs for parent training have been developed, but few have offered evidence of their effectiveness through adequate field testing.
The following chapter will present a discussion of the philosophical constructs supporting two parent education programs. It will also present a comparison of the two programs by focusing on the similarities and differences of their concepts and procedures. Finally, a discussion of research relevant to behavioral and Adlerian parent education programs will be presented.
CHAPTER II
REVIEW OF THE LITERATURE

Two current parent education programs in use in public and private agencies are the Systematic Training for Effective Parenting (STEP) program, and the Parents are Teachers (PAT) program. Don Dinkmeyer and Gary D. McKay (1976) developed the STEP program and Wesley C. Becker (1971) authored PAT. The purpose of this section is to briefly discuss the philosophical basis for these programs.

Individual Psychology

Alfred Adler. The STEP program was developed primarily on the theoretical constructs of Individual Psychology, the school of psychological thought founded by Alfred Adler. Adler, an associate of Sigmund Freud from 1902 through 1911, eventually broke away from his mentor in 1912 establishing his own school of Individual Psychology (Matson, 1977, p. 25). Adler worked differently than Freud in that he faced his clients in therapy and dealt with them more as a teacher than as a medical doctor. He also disagreed with Freud's emphasis on sexuality. Adler believed that

The fundamental fact in human development is the dynamic and purposive striving of the psyche. A child, from its earliest infancy, is engaged in a constant struggle to develop, and this struggle is in accordance
with an unconsciously formed but ever present goal-- a vision of greatness, perfection and superiority. This struggle . . . dominates all our specific acts throughout life. (Adler, 1930, p. 5)

Adler believed that this striving for superiority is directed by an individually created goal that is unknown, not understood, and that unconsciously effects people's thoughts, feelings, and actions. He thought that for the psychologist, the discovery of this goal was essential to understanding his subject's personality and style of life (Adler, 1928, p. 6). He claimed maladjustment was rooted in feelings of inferiority, poorly developed socialization skills, or an overemphasis on the goal of personal superiority due to our own misinterpretations formed early in childhood. For example, Adler believed children who are born with handicaps of a physical nature, children who receive severe physical treatment without affection, or children who are overprotected and spoiled are children "who manifest very clearly the development of compensatory traits" (Adler, 1930, p. 8). He reasoned that we can learn a great about all children by understanding the psychological traits of these children because to a certain degree he believed all children fell into one or more of these categories.

Adler thought an adult's life style, that is his attitude and ability to make friends, along with the manner
in which he lived his life with respect to work, love, and marriage revealed his true self. He believed an adult's style of life was generally consistent with the way he learned to perceive the world and himself during childhood (Ansbacher & Ansbacher, 1970, p. 25). In fact, one of Adler's therapeutic techniques, encouraging clients to disclose early recollections of childhood, is based upon his belief that the therapist can see the common elements in the client's interpretations of significant events (Ansbacher & Ansbacher, p. 197). Adler believed that the therapist should eventually be able to predict what the client would do in a certain situation. In Adler's own words,

In regard to the goal of preparing for the future, every child has in him something of the adult he will be at some time. Thus in the appraisal of an individual we can draw our conclusions more easily when we have a knowledge of his childhood. (Adler, 1928, p. 93)

Adler believed "Man is not born good or evil, but he can be trained in either direction. Whose fault is greater? that of the erring community or that of the erring child" (Ansbacher, 1974, p. 191)? Adler, aware that institutions such as schools and the family are critical to the well-being of the child, devoted much of his life to developing child guidance clinics and training teachers and parents.
Much of Adler's written work was presented in lectures so that it could be more easily understood by the layperson. Although his theories and presentations were criticized as being oversimplistic, Adler held the opinion that the proper goal of psychology was to help all human beings understand human nature (Ansbacher & Ansbacher, 1970, p. 4). This belief and his lifestyle were certainly consistent with his view of social interest. In his own terms,

The development of man . . . is subject to the redeeming influence of social interest, so that all his drives can be guided in the direction of the generally useful. The indestructible destiny of the human species is social interest. . . . Man is inclined toward social interest, toward the good. (Ansbacher & Ansbacher, 1970, pp. 210-211)

Rudolf Dreikurs. Adler had many students and followers, but few had the impact on Individual Psychology as Rudolf Dreikurs. Although there is disagreement concerning his contributions to the theory of Individual Psychology, there is general agreement that he contributed greatly to its methodology (Shulman & Dreikurs, 1978, pp. 154-155). For example, Heinz Ansbacher who translated many of Adler's original works believes that Dreikurs' contributions were not to theory but rather to techniques. Ansbacher is supported by Herbert Schaffer of France. Schaffer suggests that although Dreikurs was instrumental in propagating
Adler's theories, Dreikurs did not contribute a great deal to original Adlerian philosophy (Shulman & Dreikurs, p. 154). Eleanor Redwin and Wera Mahler, however, believe that Dreikurs helped clarify and build the theory of Individual Psychology by elaborating on the ideas of Adler in clear, systematic, and logical presentations (p. 155).

There is no question, however, that Rudolf Dreikurs has helped to operationalize Adler's theories. He has traveled and lectured widely, authored and co-authored many books for parents and teachers, and offered a clear and comprehensive strategy for democratic child rearing (Terner, 1978, p. 42). In *Children the Challenge*, a book written by Dreikurs and Soltz (1964), Dreikurs says "our recommendations are based on a specific philosophy of life and a distinctive concept of man as it has been presented by Alfred Adler and his co-workers" (p. vii). Dreikurs and Soltz endeavor to help parents understand their children by further explaining Adler's notions of a child's needs for belonging and encouragement, as well as the child's understanding of his observations formulated on his "inner and outer" environment. They explain that, "his security or lack of it depends upon his feeling of belonging within the group. This is his basic requirement. Everything he does is aimed at finding his place" (p. 14). They say from infancy a child is searching for his place of belonging within the family unit. From his observations, he chooses his method of attaining
status and his behavior is a result of this choice. Dreikurs and Soltz reason, therefore, that although a child may be unaware of his own motivation, there are concrete goals behind his behavior. They believe "encouragement is more important than any other aspect of child-raising" and consider the absence of it the prime reason for misbehavior claiming "a misbehaving child is a discouraged child" (p. 36).

On the subject of misbehavior, in his book entitled *Coping with Children's Misbehavior, A Parent's Guide*, Dreikurs (1972) says the disturbing behavior of children has

one of four possible goals. They represent his ideas about his relationships with others in the group. He tries to: (1) gain attention; (2) demonstrate his power; (3) punish or get even; (4) demonstrate his inadequacy.  (p. 5)

Thus he maintains that if a parent can understand the child's goal, the parent can then choose an appropriate response that will thwart the child's success at achieving the mistaken goal and instead encourage the display of more socially acceptable behavior. Dreikurs recommends that adults encourage their children by showing them they have confidence in their ability and by treating them with mutual respect (Dreikurs & Cassell, 1972, p. 8).  He does not recommend the use of praise, punishment, or reward. He
believes these actions either encourage power struggles in parent-child relationships or undermine the self-control we are trying to teach the child.

Dreikurs recommends the use of natural and logical consequences rather than punishment or reward. Through the use of these techniques, he reasons children will learn self-control and respect for the rights of others through the natural order of the world. Natural and logical consequences do not promote power struggles because parents are not trying to impose their will upon youngsters. Rather, parents are treating their children as equals with respect. The children become aware of how their behavior is interfering with their parents' needs at the time. If a child's activity is inappropriate only because of the setting or because of the parent's presence at the time, the parent may give the child a choice of stopping the activity or resuming it elsewhere. Otherwise the parent would point out the interfering behavior to the child and make the child aware of the consequences that will follow if the choice is to continue the behavior. If the child continues, the parent must then enforce the consequence logically or allow the natural order of events to follow, assuming the natural consequences would not be unhealthy to the child.

Dreikurs continued to expand upon Adler's child-rearing philosophy by organizing and clarifying Adlerian theories. For example, Dreikurs expanded on the notion of democratic
child-rearing principles which include social equality, encouragement, goals of misbehavior, and natural and logical consequences. In this way, Dreikurs helped to operationalize Adlerian Psychology, turning theory into practice.

In the previous section the contributions of Alfred Adler and Rudolf Dreikurs to Individual Psychology were discussed. The following section will explore the foundation of the behaviorists' approach to parent training and child-rearing practices. A brief discussion of the contributions of Watson, Skinner, and Bandura to social learning theory will be presented.

**Behavioral Psychology**

The behavioral approach to psychology has been called behavior modification, behavior therapy, reinforcement therapy, and applied behavior analysis. The principles are derived from learning theory and are applied through classical conditioning, operant conditioning, and modeling based on social learning theory. Although there are different levels of intensity with respect to the rigor of behaviorists in their analysis of behavior, they all appear to agree that the focus of a behavioral analysis is a clearly and specifically defined observable behavior (Stahl, 1975, p. 3). The intent of this section is to discuss the classical, operant, and modeling theories of behaviorism on which the PAT program is based, by presenting the theories of John
B. Watson, B. F. Skinner, and Albert Bandura.

John B. Watson. Watson, widely accepted as the founder of the school of psychology known as behaviorism, "introduced his theories in 1913 in a presentation of his paper, 'Psychology as the Behaviorist Sees It' " (Matson, 1977, p. 478). Watson defined behaviorism as a physiological psychology that considers only what can be observed with respect to the behavior of an organism, that is, what it says or does. He suggested that behaviorism was a more scientific approach to psychology and the study of organisms because it did not include subjective terms such as feelings, desire, and perception and did not concentrate on events of the past. In this way he claims behaviorism prevents concentration on unobservable data and encourages the observation of actions that may help "predict and control human activity" (Matson, p. 479).

Watson's theories offered an alternative to the established psychologies that promoted psychological growth through introspection and an understanding of emotions and personal historical events. Watson suggested that although a person is born with an ability for unlearned behavior such as breathing and heartbeat, that virtually all other responses are learned. He also claimed emotions were a set of habits that had been learned and consequently were able to be changed. A classic example of an experiment of this
nature follows:

A student of Watson's, Mary Cover Jones performed an experiment in fear reduction with a little boy who had developed a severe phobia of small, furry animals which was generalized to similar things. . . . He was placed at a table down a long hall from a large caged rabbit. Each day the rabbit was brought closer while he ate his lunch until eventually he could eat while he held the rabbit in his lap and played with it. After treatment, the counterconditioning of his fears was found to have generalized to all of the other objects involved. (Burton, 1974, p. 351)

Watson's formula for behavioral change focused on controlling the stimulus to alter the response. In this way the stimulus becomes the independent variable, manipulated by the experimenter or therapist which controls the response or behavior of the organism or client. "Watson asserted that a person was what he was by virtue of the stimuli which had been exerted on him and that by controlling the stimuli you could control the man" (Bernard & Huckins, 1971, p. 10).

B. F. Skinner. Skinner suggested that stimuli are not the major factor in shaping behavior. He believed that organisms behave to get a reward. Skinner's theories represent the school of behaviorism that attributes learning to operant conditioning. This type of conditioning focuses on
the manipulation of the consequences of behavior which are
or are not reinforcing.

According to Skinner, human behavior can be analyzed
and understood in scientific terms. "The analysis of human
behavior proceeds in two steps: the accounting of specific
behavioral events, and the discovery of the uniformity in a
series of behavioral events" (Matson, p. 425). Skinner, as
Watson, does not accept what cannot be observed saying,
"the practice of looking inside the organism for an explana-
tion of behavior has tended to obscure the variables
which are immediately available for scientific analysis"
(Matson, p. 426). Although Skinner agrees that human be-
havior is extremely complex and continuously changing, he
does not believe in concentrating on the inner-self as the
introspective psychologies do. He suggests that a total
picture of a functioning organism can be arrived at by ob-
serving its behavior in relation to its environment.

Unlike Watson, however, Skinner maintains that human
behavior and the behavior of organisms can best be altered
by manipulating the independent variable "consequence" as
opposed to manipulating the stimulus. This process is
sometimes called operant conditioning because "the organism
is allowed to operate freely on its environment instead of
being constrained to make one particular response to one
particular stimulus" (Oskamp, 1977, p. 135). Instead the
researcher or therapist reinforces; that is, rewards or
punishes, a desired response made by the organism or client. As a result, the tendency to increase the desired response is strengthened. In summary, the basic difference between classical and operant conditioning is that classical conditioning concentrates on the manipulation of stimuli as opposed to operant conditioning which concentrates on the manipulation of reinforcements.

Albert Bandura. "Bandura and Walters' Social Learning and Personality Development (1963) is firmly based on the data from their creative and rigorous laboratory experiments with children" (Burton, 1974, p. 360). Their theory is not psychoanalytic, although they believe internal self-talk to be an important variable in behavior thus separating themselves from Watson and Skinner. They claim that a person can learn to control habits by learning to control internal events. In this way a therapist may help a client learn to control actions by asking him about internal behavior and instructing him in the control of these internal events.

"Their theory of personality development . . . devotes much attention to the social learning of stylistic habits through modeling" (Burton, p. 306). Modeling is considered to be the imitation of the behavior of another person who serves as a model. Bandura suggests it is in this way children learn from parents, teachers, other important
persons and even through the television media. It is also in this way that persons can either learn personally or socially helpful behaviors (Bandura, 1971, p. 6). Experiments in social learning theory suggest that persons can be taught to administer their own reinforcers to change behavior. "Much research has shown the effectiveness of models in shaping attitudes and behavior, both in the area of aggression (Bandura, 1965; Scientific Advisory Committee on Television and Social Behavior, 1972)" (Oskamp, 1977, p. 137). This research has shown that children's aggressive behavior has increased for months at a time after seeing a film of an aggressive model, as well as showing that children's self-reinforcing and delay of gratification behaviors has been increased through modeling.

In summary, Bandura's concept differs from operant and classical conditioning in that it works with internal behaviors as opposed to ruling out their importance (Bandura, 1974, p. 863). It also adds another dimension to behaviorism, that of personal control and choice as an important factor in behavioral change. In this way, the subject can be involved with the therapist in controlling his behavior by manipulating his own consequences. Bandura is largely recognized for this contribution to social learning theory.

In the preceding section, a brief discussion of Watson,
Skinner, and Bandura's contributions to social learning theory was presented. The following section will discuss the STEP and PAT programs.

Two Parent Education Programs—STEP and PAT

Don Dinkmeyer and Gary D. McKay's Systematic Training for Effective Parenting program (STEP) and Wesley C. Becker's Parents are Teachers program (PAT) are the focal point for discussion in this section. As previously mentioned, STEP is based on the principles of Individual Psychology as explained by Alfred Adler, and PAT is the product of the school of psychology known as behaviorism whose beginning is largely attributed to John B. Watson.

Although both programs are developed on sharply contrasting psychological principles, there are many distinct and subtle similarities interwoven within STEP and PAT. Despite these similarities, however, there are also important differences. The object of this section is to develop a discussion of both programs clearly explaining the principles and skills they seek to develop in parents as well as pointing out and discussing their similarities and differences.

For the purpose of structure and cohesiveness, an attempt will be made to follow the concepts described in STEP on a chapter by chapter basis. PAT's concepts will be discussed as they align themselves with STEP, as
opposed to their order of presentation within the text. Figure 1 illustrates the concepts and skills stressed in STEP and PAT. A discussion of differences and similarities will yield more information regarding the skills presented in both programs later. The following section will provide information about the style and cost of the programs, duration, field testing, program leadership, and parents' handbooks.

**Style and cost of program.** The formal STEP program consists of a multi-media kit that includes a leader's manual, parent's handbook, five cassettes, six discussion guide cards, nine posters, ten charts, and a carrying case that converts into an easel for display of the charts used during the sessions.

The Pat program consists of a leader's guide and the use of the PAT text. Based on the participation of 10 parents, the cost would be approximately one half the cost of the STEP program. If the multi-media kit of the STEP program is not purchased, the costs are comparable. STEP's multi-media kit enhances its presentation, however, and may make it worth the additional cost. Perhaps the PAT program would do well to develop a multi-media package of its own.

**Duration of programs.** STEP advises nine weekly sessions of one and one half to two hours duration. PAT
### STEP

1. Social equality of parents and children.

2. Misbehaving children are discouraged children who do not believe they can belong in useful ways.

3. There are four goals of misbehavior.

4. Goals can be discovered by observing the consequences.

5. Four basic ingredients for building positive relationships.
   a. mutual respect
   b. taking time for fun
   c. encouragement
   d. communicating love

6. Emotions are based on our beliefs and purposes.
   a. Once parents decide that they need not control the child and that they can set limits and let the child decide and learn from the consequences, they no longer have a need to try to control the child through

### PAT

1. People learn how to behave from each other. Parents teach children, children teach parents.

2. Misbehaving children are unmotivated children.

3. Consequences strengthen or weaken behaviors.

4. Rules about consequences:
   a. follow responses you wish to strengthen with reinforcing events (rewards)
   b. follow responses you wish to weaken with punishing events (punishments)
   c. withholding all forms of reinforcement for a specified time period is a useful form of punishment
   d. responses can be weakened by no longer reinforcing them

5. Generally avoid the use of punishment. Problems can occur when it is used the wrong way.

6. There are two kinds of reinforcers

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Figure 1. An outline of the concepts and skills stressed in STEP and PAT.
STEP

anger and other emotions.
People decide how to feel.
b. Children also try to use their emotions to attain the four goals of misbehavior.

7. There are four major factors influencing life-style.
a. Family atmosphere and values
b. Sex roles
c. Family constellation
d. Methods of training

8. Being a responsible parent is preferable to being a "good parent".

9. Praise is damaging, encouragement is preferable.

10. There are certain attitudes and behaviors that should be eliminated to become encouraging parents.

11. There are certain attitudes and behaviors to work toward to become encouraging parents.

PAT

and punishers, learned and unlearned.
a. An unlearned reinforcer is an event that strengthens a behavior in and of itself. An unlearned punisher is an event that weakens a behavior in and of itself.
b. A learned reinforcer or punisher is an event that becomes reinforcing when it is paired with an unlearned reinforcer.

7. Learned reinforcers include social reinforcers and token reinforcers. They also include activity reinforcers.

8. A general rule to follow when using reinforcers is the behavior must be performed, in order to receive the reward.

9. Reinforcements should occur:
a. immediately, if at all possible
b. early in learning, reinforce every response; later, reinforce intermittently

Figure 1 cont.
STEP

12. There are certain roles that parents play that prevent effective communication. Effective communication is based on mutual respect.

13. Effective communication is enhanced by practicing the following:
   a. eye contact
   b. reflective listening
   c. non-verbal behavior that communicates caring and openness

14. Be careful when using reflective listening.

15. Problem ownership is an important skill. Determining whose problem it is, is fundamental to problem-solving.

16. Use reflective listening, brainstorming, obtaining a commitment, planning re-evaluation, I-Messages and natural and logical consequences to help problem solve.

17. Reward and punishment are harmful. Natural and logical consequences

Figure 1 cont.

PAT

10. Be careful not to reward undesirable behaviors.

11. When children are "turned off", unmotivated, parents should:
   a. reduce punishment
   b. use more effective reinforcers such as unlearned reinforcers when praise, attention, and affection don't work.

12. Explains token reinforcement systems.

13. There are reinforcements and punishments for all of us in every day life.

14. Avoid the criticism trip by:
   a. praising more
   b. practicing how to praise
   c. getting yourself reinforced

15. Learn to communicate emotionally with children using social
are more effective disciplinary techniques.

18. Seven principles guide the use of natural and logical consequences. They are:
   a. understand the child's goals, behavior and emotions,
   b. be both firm and kind,
   c. don't try to be a good parent,
   d. become more consistent in your actions,
   e. separate the deed from the doer,
   f. encourage independence,
   g. avoid pity.

19. Family meetings should be scheduled regularly for all family members and should involve a discussion of issues important to the family.

20. Parents should be aware of self-defeating attitudes that could hinder their potential and sap their confidence.

---

STEP

16. There can be problems using praise.

17. Although punishment works and is effective, there can be problems when it is used inappropriately.

18. Punishment should be used in the following circumstances:
   a. When a problem occurs so often there is no good behavior to reinforce,
   b. or if the problem involves danger with respect to the child or others,
   c. and when using reinforcers is ineffective due to the more powerful reinforcers causing the problem.

19. To be used effectively punishment should:
   a. be immediate,
   b. withdraw reinforcers, but provide the child with the opportunity to "try again".

Figure 1 cont.
<table>
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<tr>
<th>STEP</th>
<th>PAT</th>
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<tr>
<td>c. use a warning signal,</td>
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<tr>
<td>d. be carried out in a calm manner</td>
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<tr>
<td>e. be accompanied by reinforce- ment for behavior that is opposite the &quot;bad behavior&quot;,</td>
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<tr>
<td>f. be consistent.</td>
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<tr>
<td>20. Parents should use reasons, rules, and reminders to:</td>
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<tr>
<td>a. provide a guide for children,</td>
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<tr>
<td>b. provide consistency for par- ents,</td>
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<tr>
<td>c. help children learn self-man- agement skills,</td>
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<tr>
<td>d. help children learn to reason and solve problems for them- selves.</td>
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<td>21. Rules should be short, stated positively, and easy to remember. They should also be:</td>
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<tr>
<td>a. enforceable,</td>
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<td>b. easily reinforceable,</td>
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<td>c. specify a behavior and a con- sequence,</td>
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<td>d. age appropriate.</td>
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<td>22. Make specific recommendations.</td>
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Figure 1 cont.
PAT recommends 10 weekly sessions lasting approximately one hour.

Although the time factor may not be crucial or even particularly significant with respect to the attendance of parents, it could influence the cost factor for organizations that intend to offer a parenting skills program. That is, if an organization must hire someone to implement the course, the time commitment for STEP is almost double the time commitment for PAT. Neither program, however, suggests this is necessary.

Program leadership. The STEP leader's manual is far more comprehensive than that of PAT and offers a great deal of helpful information. Leadership skills and guidelines, problems particular to group leadership, general and specific lesson plans, transcripts of the cassettes, and further recommended readings make up the most important points of the STEP manual.

The PAT guide offers none of the more comprehensive information listed above. It does offer, however, very specific recommendations concerning parent attendance that should help keep parents involved, as well as concrete steps to take for all sessions that should help insure organization during lessons and could enhance group discussion. In fact, PAT's simplicity and clarity are valuable assets sometimes lost with STEP.

Though neither program suggests the need for a
trained professional to lead the sessions, it is difficult to consider an untrained lay person to be an adequate group leader for either program. STEP should be recognized for its attempt to provide a course in group leadership skills in its manual, however, this section appears to magnify the difficulty of the task at hand. STEP contends that the program serves as an authority, and although this may be valid, it is the group leader, not STEP, that needs the skills at hand to facilitate group discussion.

As for PAT, its group leader's manual does not deal with the problems of group leadership at all! In summary, the concepts of both programs may be too complex and difficult to assimilate and discuss intelligently without the help of a knowledgeable person trained in the helping professions.

Development and field testing. Both STEP and PAT fall short in this area with respect to concrete evidence of their field testing and final results. STEP and PAT sum up their discussion of this important topic in a total of twelve lines. A review of the research literature to be discussed later in this section may shed more light in this area.

Parent's handbooks. STEP is a very colorful book and includes many drawings and sketches, whereas PAT has one
sketch and is basically a black and white text.

Each chapter in STEP includes the written text concerning the subject at hand, questions concerning the major points made in that chapter, a problem situation for purposes of group discussion, and homework entitled "Activity for the Week." There are also colorful charts which are mini-reproductions of the larger charts contained in the STEP audio-visual kit focusing on major points to remember. Each chapter also includes a written activity for parents oriented toward helping them improve their relationships with their children.

The chapters in PAT include the text, vocabulary words, and definitions of terms that may be foreign to participants at the bottom of each page; a summary concerning major points to remember; a caution that deals with specific problems; and exercises oriented toward helping parents learn the behavioral vocabulary and concepts presented. PAT also provides answers to exercises in the rear of the text.

Providing answers to questions and making them easily accessible appears to be a trait common to behavioral literature written for parents, such as in G. R. Patterson's (1975) book entitled Families, Applications of Social Learning Theory to Family Life. The idea appears to be that when teaching new material, having the answers immediately available prevents discouragement and
augments learning either by reinforcing the correct response or by making it easier for the parent to self-correct, which is a valuable learning experience in itself. This practice is consistent with the concept of operant conditioning in learning theory which suggests that immediate reinforcement of desirable behaviors will result in an increase of those behaviors.

The previous section presented information regarding the concepts and skills stressed in STEP and PAT; style, cost, and duration of the programs; program leadership; development and field testing; and parent handbooks. The following section will address itself to the differences and similarities of STEP and PAT. Comparisons will be made in accordance with their order of presentation in the STEP text.

Differences and Similarities. Though STEP and PAT are built on sharply divergent philosophical constructs, there are many striking similarities, as well as labeled differences that have subtle similarities. The differences and similarities are outlined in Figure 2.

Social status of children. STEP suggests that parents should accept their children as social equals in order to be able to appreciate and implement its child-rearing techniques. According to STEP, social equality means "children are equal to adults in terms of human worth and dignity. . . . entitled to respect and to self-
<table>
<thead>
<tr>
<th><strong>STEP</strong></th>
<th><strong>PAT</strong></th>
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<tr>
<td>1. Behavior occurs for a social purpose—&quot;to belong&quot;.</td>
<td>1. Behavior is taught—behavior is learned.</td>
</tr>
<tr>
<td>2. Misbehaving children are discouraged children.</td>
<td>2. Turned off children are unmotivated children.</td>
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</tbody>
</table>
| 3. There are four goals of misbehavior:  
   a. Attention  
   b. Power  
   c. Revenge  
   d. Display of Inadequacy | 3. Behavior occurs because it is reinforced. Consequences strengthen or weaken behaviors. |
| 4. To understand behavior, observe its' consequences in terms of parental internal responses. | 4. To understand behavior, observe its' consequences in terms of what happens to the child next. |
| 5. Consequences are:  
   a. parent's feelings  
   b. parent's reaction  
   c. child's response to parent's attempt at correction | 5. Reinforcing events and punishing events strengthen or weaken behaviors they follow. Consequences are responses which follow behaviors. |
| 6. Once the consequences are observed, and the child's goal understood the parent can begin redirecting the child by changing the consequences. | 6. Once the consequences are observed, the reinforcing events can be changed. The parent can teach the child new behaviors by changing the consequences. |

Figure 2. An outline of the differences and similarities of STEP and PAT.
### STEP

7. Changing the consequences involves:
   a. Altering parents' feelings of annoyance, anger, hurt and sympathy.
   b. Altering parents' reactions by using:
      1. encouragement rather than praise - avoiding criticism
      2. understanding concept of problem ownership
      3. helping child explore alternatives
      4. allowing the child to face the consequences independently
      5. influencing the child by using I-Messages rather than You-Messages
      6. using natural and logical consequences
      7. instituting family meetings
      8. using effective listening techniques

### PAT

7. Changing the consequences involves:
   a. Having parents' calmly apply the following principles, thereby altering their feelings and reactions:
      1. applying unlearned and learned reinforcers and punishers
      2. using praise - avoiding criticism
      3. using rules, reasons and reminders
      4. ignoring certain behaviors
      5. helping the child learn to choose and make decisions by following an outlined format for discussing positive and negative situations that occur

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Figure 2 cont.
determination within limits prescribed by the society (they live in)" (Dinkmeyer & McKay, 1976, p. 7).

STEP is true to its fundamental Adlerian principles by advocating a democratic child-rearing method based on mutual respect, free choice within limits, and the application of natural and logical consequences. These concepts will later be discussed at greater length.

PAT does not deal with the concept of social status.

Children's behavior. STEP suggests that all behavior occurs as a result of one's need to feel socially significant or to belong. This is a fundamental Adlerian construct that suggests people choose their behavior in accordance with their need for social recognition. A person's desire and resultant search for a purposeful and meaningful social existence influences choices concerning one's beliefs, feelings, and ultimately one's behavior. If people are continually frustrated in their search for significance, they will develop beliefs and feelings about themselves that will lead to faulty goals and misbehavior. STEP suggests that children who misbehave are discouraged children (Dinkmeyer & McKay, p. 8).

PAT states that behavior is taught, or conversely that behavior is learned. People teach people how to behave. "Parents teach children, children teach parents, husbands teach wives, wives teach husbands, all behavior
is taught" (Becker, 1971, p. 9). PAT clearly reflects its roots in social learning theory and behavioral psychology. PAT suggests that behavior is affected by the consequences that follow it, that is, when it is effectively punished it will be weakened (Becker, p. 15). It is based on the principle that people will generally choose pleasure rather than pain, and the consequences of pleasure and pain are powerful change agents. Children behave in accordance with what their parents do that either reinforces or punishes their behavior, what other people do such as teachers and peers that reinforces their behavior, or what events reinforce or punish their behavior (Becker, p. 14). PAT suggests that misbehaving children are unmotivated children.

Observing the consequences of behavior. In STEP, it is proposed that parents can understand their children's behavior by observing its consequences. The consequences are the parent's feelings, reactions, and the subsequent responses of the child to the parent's reactions (Dinkmeyer & McKay, p. 9).

Concerning misbehavior, STEP suggests that children have four goals that can be identified following the aforementioned process. They are: attention, power, revenge, and display of inadequacy (Dinkmeyer & McKay, pp. 9-11).
STEP says the child's goals are the result of faulty beliefs such as "I belong only when I am being noticed, [or] I belong only when I am in control, [or] I cannot be loved, [and] I am helpless" (Dinkmeyer & McKay, p. 14). These beliefs are arrived at due to faulty decisions made by the child based on limited experience in life and the discouragement felt in striving for social recognition.

Although STEP is true to its Adlerian roots, what is found here is a clearly behavioral approach to problem solving recommended for parents. There are many instances of this interweaving of psychological constructs in STEP and PAT however, at this point, concentration will be only on the similarities recommended to parents for producing behavioral change.

First of all, STEP suggests that in order to understand behavior, parents must observe its consequences. PAT says, "which consequent events strengthen or weaken behavior is determined by investigation" (Becker, p. 14). B. F. Skinner, a behaviorist, first proposed the notion of operant conditioning that attributes learning to the manipulation of the consequences of behavior. This suggestion must be placed in the behavioral camp.

Upon closer scrutiny however, one must answer the question, what do STEP and PAT mean by consequences?

STEP's notion that a parent can arrive at an under-
standing of the child's goal by being aware of their own feelings is definitely not one of the behavioral constructs found in PAT.

Generally, behavioral psychology as proposed by Watson does not accept that which cannot be observed and recorded. This is not to suggest that these events do not exist, but simply that events such as parents' feelings are of little value to scientific analysis and data collection in order to promote behavioral change in children.

STEP maintains that the parents' feelings point to the child's goal, and that based on their feelings a parent can choose an appropriate response to the child's behavior. This is definitely not a behavioral construct. In the classical sense, however, it does align itself with Albert Bandura's notion that internal behaviors and self-talk are important variables to be considered for people learning self-management skills. Basically, he suggests that a therapist can help clients learn to control their actions by helping them to learn to control internal events (Bandura, 1977, p. 189). STEP's suggestion that parents "avoid feeling hurt", or control this internal event in order to avoid an act of "retaliation or punishment" certainly appears to fall within Bandura's philosophical framework (Dinkmeyer & McKay, p. 14). PAT does suggest that parents must observe consequences
in order to learn what event is reinforcing their children's behavior. This event, when considering parent-child interactions, generally involves the parent's response to the child's behavior. The focus of PAT is to alter the parent's reaction to the child's misbehavior (Becker, p. 14). Both programs suggest that once the consequences have been observed, the parent can go about the business of changing their own behavior in order to change their child's behavior. What specific recommendations do both programs make then for changing parental reactions?

Recommemations for parental actions. STEP recommends that parents should alter their feelings of annoyance, anger, hurt, and sympathy when involved in conflict-laden situations with their children. STEP also suggests that parents should: use encouragement rather than praise, avoid criticism, learn to understand the concept of problem ownership, use reflective listening to help children explore alternatives, influence their children by using I-messages, use natural and logical consequences with their children rather than reward and punishment, and institute family meetings to allow children to face consequences independently.

PAT recommends that parents calmly apply the following principles: use unlearned and learned reinforcers and punishers; use praise and avoid criticism, use rules,
reasons, and reminders; ignore certain behaviors; and help
the child learn to choose between alternatives and make
their own decisions by following an outlined format for
discussing positive and negative situations that occur
with their children.

The obvious similarities in both programs are:
avoid criticism, help the child explore alternatives,
ignore certain behaviors, and control your feelings.
There are also important differences as well as not so
obvious similarities. The following section will develop
an explanation of these differences and similarities.

Differences--encouragement vs. praise. STEP recom-
mends the use of encouragement rather than praise. STEP
suggests that praise can be harmful because by placing
value judgement, it teaches children to be outwardly
motivated, that is, acting in such a way as to please
someone else as opposed to being inwardly motivated, act-
ing in such a way to please themselves. STEP sees praise
as a reward. "Praise is an attempt to motivate children
with external rewards. . . .a method of social control. .
. .children come to believe their worth depends upon the
opinions of others" (Dinkmeyer & McKay, p. 37).

STEP suggests encouragement is
valuing and accepting children as they are. . .point-
ing out the positive aspects of behavior. . .showing
faith...recognizing effort and improvement...showing appreciation for contributions. (Dinkmeyer & McKay, p. 39)

This process they believe helps children learn to be courageous and accepting of their imperfections, capable of self-evaluation and decision making, persistent in their efforts, and happy for their own successes and the successes of others. Contrasting encouragement to praise with respect to its effects on children, STEP maintains that praise teaches children to evaluate themselves in accordance with the values of others, learning to fear disapproval, dread failure, set unrealistic standards, and to become overcompetitive—feeling worthwhile only when "on top" (Dinkmeyer & McKay, p. 40).

PAT, in accordance with the principle of operant conditioning, relies heavily on the use of praise as a motivating consequence for promoting acceptable behavior. Although PAT indicates that praise is a learned reinforcer and that some children do not respond to praise unless taught to do so by coupling praise with unlearned effective reinforcers, PAT makes no distinction between praise and encouragement as STEP does (Becker, pp 21-22).

This is one of the areas, however, where there are subtle similarities behind very different terms. For instance, STEP mentions that when comments about children's
behavior are in order, parents should "be alert to eliminate value-loaded words from your vocabulary. . . substitute words of praise with phrases which express the special meaning of encouragement" (Dinkmeyer & McKay, p. 38). STEP also recommends that parents should try to be specific when pointing out behaviors and encouraging the child. The admonitions are not significantly different than those of the behaviorists.

Similarly, PAT recommends that parents should try to be specific concerning behaviors when using praise. "Praise the behavior, not the whole child" (Becker, p. 101). It also suggests, as STEP does, that praise be descriptive rather than judgemental. Both programs also agree that praise can be misunderstood, misinterpreted, and not helpful in that a child may not feel worthy of the praise because the child's feelings may not match the praise. PAT states that "simply describing what a child does or did that you like is the first step to good praising" (Becker, p. 101). One of STEP's examples of encouragement is "I like the way you handled that" (Dinkmeyer & McKay, p. 38).

Although both programs use different labels to describe praise and encouragement, they are actually making similar recommendations. PAT, however, simply makes recommendations while STEP trains parents in the art of
Problematic behavior. STEP, borrowing from the book entitled Parent Effectiveness Training by Dr. Thomas Gordon (1970) recommends that parents should learn to understand the concept of problem ownership (Dinkmeyer & McKay, p. 64). Gordon claims that in parent-child interactions, three categories of problems occur. In the first category the child owns the problem. The child's own needs are not being satisfied but they are not interfering with the parents' needs, for example, failing a test in school. In the second category, there is no problem. Both the parent and child are satisfying their own needs. The parent owns the problem in the third category. The child's own needs are being satisfied, but the behavior is interfering with the parents' rights. For example, as a parent is watching the evening news on television, the child changes the channel to a different program (Dinkmeyer & McKay, p. 58).

Once the issue of problem ownership is resolved, STEP relies upon the use of communication skills and natural and logical consequences as methods for problem solving depending upon the situation. PAT does not deal with the concept of problem ownership, but rather relies upon the parents' ability to decode which behaviors require their intervention strategies. PAT's strategies
include guidelines and training in the proper use of reward and punishment as well as recommendations concerning methods of communication. It is here, however, where the major differences in the two programs occur. Mosak (1979) says:

Because of the emphasis on behavior (movement), Adlerian psychology and behavior-modification theory have been equated. This is an error. Adlerians... have as their major goal not behavior modification, but motivation modification. (Corsini, 1979, p. 62)

Due to this emphasis, STEP encourages and trains parents to place a strong emphasis on the skill of reflective listening, whereas PAT suggests appropriate responses that incorporate the use of reflective listening, without making any attempt to train parents in the art.

**Communication.** STEP warns parents about certain roles they may play that can interfere with their ability to listen effectively to their children. It claims that antagonistic roles such as "The Judge" and "The Know-It-All" prevent parents from dealing with their children based on mutual respect (Dinkmeyer & McKay, p. 46).

"Mutual respect means that children and parents allow each other to express their beliefs and feelings honestly, without fear of rejection" (Dinkmeyer & McKay, p. 47).
Reflective listening is the parental skill that is necessary to let their children know that they understand their feelings. Parents' body language, eye contact, verbal reflections, and attitudes are seen as the keys to establishing open communication. Reflective listening skills help a parent assist a child in developing self-understanding and in resolving conflicts. It is seen as the key to helping children problem solve after the parent has determined that the situation is one in which the child owns the problem. Coupling reflective listening with brainstorming by evaluating the consequences of the different actions the child could take, and obtaining an eventual choice from the child as well as planning a time for re-evaluation, is seen as the process of problem solving (Dinkmeyer & McKay, pp. 47-51).

When the parent owns the problem, STEP recommends the use of I-messages. STEP says "an I-message simply describes how the child's behavior makes you feel. The message focuses on you, not on the child. It reports what you feel. It does not assign blame" (Dinkmeyer & McKay, p. 59). It recommends the use of I-messages as opposed to You-messages; the latter are believed to lay blame and to promote criticism in the form of verbal attack. This is said to be harmful to the relationship. STEP recommends the following simple procedure for helping parents
construct I-messages: "1. When you (state the behavior), 2. I feel (state the feeling), 3. because (state the consequence)" (Dinkmeyer & McKay, p. 60). An example of this procedure would be, (1) When you ask someone to join us for dinner without asking me, (2) I feel angry, (3) because we haven't discussed your intentions, and I'm not sure we have enough food.

PAT warns parents about the "criticism trap". PAT points out that some children learn to act out for attention despite its negative connotations, and that although criticism appears to work on the surface, it often leads to more unacceptable behavior or more instances of the same behavior (Becker, p. 87). For instance, PAT describes a classroom situation where a teacher continually told children to sit down when they were out of their seats. Although the children did sit down when reminded, they were up again in a short period of time. It appeared to the teacher as if her strategy was working, however her request that they sit down actually promoted an increase in out of seat behavior. The teacher changed the students' actions by ignoring the out of seat behavior and praising the children for their in seat behavior. This reduced the out of seat behavior dramatically (Becker, pp. 85-87).

PAT recommends that parents praise more in order to
avoid the criticism trap. It also recommends that parents learn to "communicate emotionally" with their children offering as a definition, "Letting children know you care for them and are interested in them as you teach them" (Becker, p. 99). PAT makes no mention of the issues of problem ownership and I-messages. With respect to communication, PAT does not go into the depth and instruction that STEP does. STEP, however, does not get involved with many behavioral skills that PAT teaches.

When parents are communicating with their children regarding their misbehavior, STEP recommends the use of natural and logical consequences as alternatives to rewards and punishment. It suggests that rewards and punishments are largely ineffective because they are based on the assertion of power in the parent-child relationship. STEP claims the use of force or power prevents the establishment of a relationship based on mutual respect. STEP maintains that force leads parents and children into unnecessary power struggles resulting in sneakiness, fear, rebellion, confusion, poor self-image, indecision on the part of children, acts of revenge, and defiant compliance.

Natural and logical consequences. STEP asserts that natural and logical consequences teach children to become self-regulating, responsible, respectful, secure, self-disciplining and resourceful persons. The term natural
and logical consequences is attributed to Rudolf Dreikurs as mentioned earlier (Terner, 1978, p. 42). STEP defines natural consequences as

those which permit children to learn from the natural order of the physical world—for example, that not eating is followed by hunger. Logical consequences are those which permit children to learn from the reality of the social order—for example, children who do not get up on time may be late to school and have to make up work. (Dinkmeyer & McKay, p. 83)

Unlearned reinforcers and punishers. PAT offers two general types of reinforcers and punishers as the basis for changing behavior. Within the first category are unlearned reinforcers which include such things as food, candy, and toys. PAT suggests that unlearned reinforcers usually require no training to strengthen a behavior they follow because they are naturally pleasant to the child (Becker, p. 21). In other words, the child already responds to this type of reward.

Unlearned punishers, or events that are painful such as excessive heat or cold, usually weaken behaviors they follow because they are unpleasant and are therefore generally avoided by the child. For example, a child who loses his mittens on a cold winter day would be naturally punished by the cold feelings in his hands.
Learned reinforcers and punishers. PAT's reinforcers and punishers in the second category are called learned, because they are consequences which, at first, may have no effect on behavior. Examples of learned reinforcers are praise, tokens, and check marks on a chart. Examples of learned punishers are words such as "no" and "stop that", or a hand signal such as putting one finger in the air as a warning gesture.

PAT suggests that following either learned reinforcers or punishers with an effective unlearned reinforcer or punisher, one that already has an effect on the child's behavior, will make that event rewarding or punishing to the child in time (Becker, p. 22). For example, children who do not respond to praise will eventually learn to respond to praise if it is followed with a reward they truly enjoy. Another example would be if a child generally does not respond to a parent's "no", the child may be taught to respond appropriately by coupling the "no" with a short time-out period. The child should eventually learn to stop the behavior when the parent says "no" because if the behavior does not cease, the consequence will be one the child does not cherish.

Social reinforcers. PAT also recommends the use of social reinforcers. Social reinforcers involve the parents' actions, attention, words of praise, closeness, and
touching. PAT cites examples of social reinforcers such as "I love you, I like that, (and other phrases of affection and praise such as) touching, hugging and stroking" (Becker, p. 100).

**Token reinforcers.** Token reinforcers are seen as concrete objects or things that can be counted or saved such as poker chips, points, or check marks on a chart. They are often collected and/or exchanged for other reinforcers that the child values (Becker, p. 23).

**Grandma's rule or activity reinforcers.** Grandma's rule, "First you work, then you play", promotes the use of activity reinforcers (Becker, p. 25). An example of this rule and its effective use would be requiring that a child clean his room and do his chores prior to going out to play on Saturday morning. In other words, the less preferred activity is reinforced by the child's desire to engage in the preferred activity. PAT suggests that by watching children and finding out what they like to do, a parent can use these activities to reward them for behaviors they do not enjoy doing. Grandma's rule and all the reinforcers mentioned earlier are examples of operant conditioning.

In summary, PAT suggests that parents can teach their children to perform certain behaviors by using the consequences of reward and punishment with consistency and
contingent upon the performance of the child. PAT, however, goes a step further than this by suggesting that our longer range goal is to teach a child to guide his own behavior, make good decisions, reason clearly about choices and consequences, solve problems on his own, and plan ahead. When a child is taught the rules about consequences of his own behaviors, he can make better decisions for himself when his parents are not there. (Becker, p. 144)

Reasons, rules, and reminders. PAT says that the complete rule about "what is learned" says: The child learns to do, under a given set of conditions, what is reinforced. We not only teach a child what to do, but when to do it. Reasons, rules, and reminders help the child learn when he is supposed to do what; or, in the case of punished behaviors, when he is not supposed to do what. (Becker, p. 144)

When parents give children reasons for the punishments and the rewards they receive, children learn to anticipate the consequences of their behavior and learn to make better decisions. PAT suggests parents can do this by following certain steps such as: early in learning tell children the specific behavior that resulted in punishment or reward; then begin to ask them the reasons for their being punished or rewarded; next begin to teach
them general rules for the behavior from the reasons the children give such as "the golden rule"; and finally help children plot a course for action based on the general rules that have been learned, or the values they have learned to espouse (Becker, pp. 144-146). Rules are seen then as guidelines for behavior, but PAT also sees them as helpful for building consistency in parent-child relationships.

**Characteristics of rules.** When possible, PAT recommends that rules should be stated positively and be brief enough to remember. They should also be easily enforceable and specific with respect to the behavior and consequences for breaking or following them. When parents begin to teach their children rules, they should

1. Start new rules out one at a time; 2. When a rule is broken, ask the child to state the rule he broke; 3. When a rule is broken, have the correct behavior performed if possible; 4. Use reminders to teach rules and then fade them out; (and) 5. Ignore protests about rules as long as you are sure they are reasonable. (Becker, p. 155)

Reminders are seen as notes, charts, check lists, and spoken words that the parent can use to help the child learn how, when, and where to do the task or chore for which the child is responsible.
Differences and similarities between STEP's natural and logical consequences and PAT's reward and punishment. STEP, following Adlerian principles, rejects the use of rewards such as token reinforcers or activity reinforcers offered for appropriate behavior. STEP would also reject a system of consequences where children would not have a choice concerning their behavior and would not be allowed to choose the inappropriate behavior. The sole exception to this would be in situations where harm of a physical nature may be forthcoming to the child or someone else. One must wonder, however, what a STEP parent would do if one of their recommendations did not change the child's behavior. STEP recommends, for example, that if the children do not take care of their kitchen chores, the parent could refuse to cook dinner or can choose to eat out. Although this is a reasonable enough suggestion for a day or two, how long would STEP recommend that this continue if the children remain adamant in their decision not to help?

Both programs recommend that parents should apply their strategies calmly, not fight with or give in to their children in situations of stress, try to teach their children to make their own decisions, show affection to their children, be consistent, use ignoring at times and attention at others, be both firm and kind, and try to
help their children become effective social beings who care about themselves and others.

Perhaps STEP says it best:

The line between punishment and logical consequences is thin at times. Your matter-of-fact tone of voice, friendly attitude, and willingness to accept the child's decision are essential characteristics of logical consequences. (Dinkmeyer & McKay, p. 80)

Family meetings. An important part of the STEP approach to parenting involves establishing family meetings on a regular basis to discuss important issues having to do with the family. The issues could involve anything from the distribution of chores to planning family outings and fun times together. STEP trains parents in the use of communication skills such as reflective listening and I-messages. It also suggests to parents that they deal with real issues, brainstorm for solutions to problems, work for consensus on issues, summarize the meeting before ending it, and obtain a commitment from family members upon which to institute the decisions and actions (Dinkmeyer & McKay, p. 100). Common mistakes that lead to the failure of family meetings are: waiting until every member of the family agrees to attend, starting late, having too long a meeting, sharing time unequally, turning meetings into a time for criticism and complaints, and not putting
agreements into action (Dinkmeyer & McKay, p. 102).

PAT does not deal with the concept of family meetings, and does not train parents in the use of communication skills. PAT concentrates on training parents in the use of behavior management skills such as charting behavior; choosing reinforcers; time-out; and reasons, rules, and reminders.

Recommendations to parents. STEP finishes its handbook with a chapter on helping parents develop their own confidence and specific skills that can help them avoid self-defeating beliefs and behaviors. It is pure Adlerian encouragement aimed at alerting parents to the pitfalls of trying to do something as difficult as parenting in a different way. It advises parents to continue to help their children develop personal responsibility, recommends that they learn to control their feelings, and to relate to their children "with as much respect as we show our good friends" (Dinkmeyer & McKay, p. 112).

Your child's personality and you. PAT's final chapter deals with specific personality traits and the common problems that can occur when parents and others teach a child how to behave in an inappropriate fashion. PAT makes specific recommendations, almost in cookbook fashion for dealing with common behavior problems from angry emotional outbursts to instances of emotional blackmail such
as crying. PAT, true to its behavioral roots, suggests that "for the most part your child will learn to be the kind of person you teach him to be. . . . people teach each other how to behave, be a good teacher" (Becker, p. 177).

**Teaching methodology.** STEP relies heavily upon discussion in the parent group. The discussions center around simulated problem situations outlined in the text, real life experiences shared by parents, tape recordings of simulated problems and charts explaining different concepts advocated by the program. It also includes an activity for the week oriented towards helping parents practice and develop skills such as reflective listening, the use of natural and logical consequences, problem ownership, and others advocated in the text. STEP also has a "Points to Remember" page that deals with the important areas covered in that week's lesson. The page can be detached from the text and used as a reminder when posted in the home. Finally, STEP includes a page to be filled out privately by parents to help them assess their growth each week and make plans for the future.

PAT also relies heavily on group discussion concentrating on the behavioral concepts and skills presented in the text. These discussions help parents clarify what is observable behavior and what is not, develop a token economy system, record behavior, and understand many other
behavioral concepts and skills. PAT also has weekly assignments which are written answers to questions dealing with behavioral terms and vocabulary, as well as tests to be given during class time dealing with the same issues. Finally, PAT includes five action-oriented projects for parents to do at home covering skills such as recording behavior, recording consequences, and observing and recording the data and other behavioral strategies and skills.

Summary. In the preceding section a discussion of the similarities and differences of the STEP and PAT programs was presented. Not the least of these similarities is each program's intention to train parents to develop their children's social skills in such a way that the children will become independent, caring, and socially responsible adults.

Although the philosophies of STEP and PAT differ at times, parents have reported that their methods have helped them in their everyday dealings with their children.

The first half of this chapter discussed individual psychology, behavioral psychology, and two parent education programs--STEP and PAT. The following section will discuss pertinent research in the development and use of parent education programs. Adlerian interventions, behavioral interventions, and studies comparing different
approaches will be presented.
Review of the Research

The review of the research dealing with general parent education reveals a most significant fact. The authors of the various parent programs have provided little empirical support for the effectiveness of their interventions in altering the behavioral patterns of parents and/or children (Bernal & North, 1978; Kelly & Main, 1978).

In their comprehensive review of manuals written for parents and for professionals who counsel parents, Bernal and North (1978) indicate that only five of 20 behaviorally oriented parent training manuals had been evaluated or field tested. This 25% figure certainly does not reflect the behavioral training of the authors. Other reviewers support these findings and comment on the scarcity of research efforts and subsequent lack of solid evidence regarding the effectiveness of both Adlerian and behavioral parent education programs (Freeman, 1975; Kelly & Main, 1978; McDonough, 1976; Moore & Dean-Zubritsky, 1979; Schultz & Nystul, 1980; Stevens, 1978; Veltkamp & Newman, 1976).

Much of the evidence cited in support of parent education programs is descriptive in nature with many studies drawing conclusions based on the satisfaction of group members and/or parents' perceptions of changes in
their own or their children's behavior (Forehand & Atkeson, 1977; Kelly & Main, 1978). Specific intervention procedures however, such as time-out and selective attention behavior, prescribed and taught to parents in Adlerian and behavioral manuals have been empirically tested in the course of parent training research. Nonetheless, generalizations regarding the efficacy of a manual, incorporating many techniques that have been tested individually, must be guarded despite the positive outcome of those studies.

This review will present information relative to research and evaluation of Adlerian and behavioral parent education programs. Specific Adlerian and behavioral interventions oriented toward special populations or special problems will also be discussed. Comparison studies of parent education programs will be reviewed that were similar to the project reported in this study.

Adlerian interventions. Adlerians have conducted studies on specific Adlerian tenets such as social interest (Crandall & Harris, 1976; Crandall & Reimanis, 1976; Huber, 1977) and lifestyle (West & Bubenzer, 1978). Adlerian studies have also concentrated on the general effects of Adlerian counseling on parents, teachers, and children (Palmo & Kuzniar, 1972; Platt, 1971; Steed, 1971; Stormer & Kirby, 1969; Taylor & Hoedt, 1974).
Others such as Levi, Buskila, and Gerzi (1977) have concentrated on micro skills such as benign neglect, or on the educational presentation such as cognitive or role-playing groups.

The following section will review studies that have been conducted on Adlerian parent education programs.

**Systematic training for effective parenting (STEP).** Several studies focused upon whether or not participation in a STEP group would result in a positive change in mothers' perceptions of their children's behavior (Bauer, 1978; McKay, 1976; McKay & Hillman, 1979; Villegas, 1977). One of the instruments used in all of these studies was the Adlerian Parent Assessment of Child Behavior Scale (APACBS) developed by McKay (1976) to assess parents' perceptions of child behaviors dealt with in STEP and other Adlerian-based programs. The scale is a seven point, 32 item parent questionnaire presenting both responsible and irresponsible child behaviors in the items. Discussing its validity and reliability, McKay & Hillman (1979) say the APACBS was judged for content validity by three judges familiar with Adlerian-based programs. A reliability test of the instrument was conducted in a pilot study. The results were as follows: The Cronbach alpha test for internal consistency ranged from .90 to .91 (Cronbach, 1951). The Pearson r test
for stability over time yielded a coefficient of .97. (p. 30)

Two of the studies used a pre-posttest control group design (McKay, 1976; Villegas, 1977). Bauer (1978) used a pre-posttest design comparing the STEP program to Adlerian parent study groups.

All of the studies indicated a significant increase in parents' perceptions of improved behavior on the part of their children. Several researchers, however, have raised significant questions regarding the reliability of parent report data concerning child behavior (Forehand & Atkeson, 1977; Patterson, Cobb & Ray, 1973; Peed, Roberts, & Forehand, 1977; Rinn, Vernon, & Wise, 1975). Other hypotheses rejected in these studies were: (a) improved parental self-concept as a result of intervention (Bauer, 1978); and (b) an increase in mothers' knowledge of child development principles (Villegas, 1977). McKay's (1976) study also included only mothers who had attended at least seven of nine sessions resulting in a loss of four mothers in the experimental group and two in the control group. Researchers have suggested that either not taking into account drop-out cases or not obtaining follow-up data on the whole portion of the totally treated sample may result in inflated success rates (Bandura, 1969; O'Leary, Turkewitz, & Taffel, 1973).
Another study involving the STEP program that used an experimental and control group design was conducted by Meredith and Benninga (1979). This study's results indicated a significant decrease in authoritarian attitudes on the part of parents, but no significant change in children's self-concepts as a result of the intervention. The results of STEP studies are presented in Table I.

The next section will deal with research conducted on Adlerian Parent Study (APS) groups. These studies are included due to the similarities of the STEP program and the APS groups, and due to the dearth of information available concerning the STEP program. It should be noted, however, that although the programs were based on the same Adlerian constructs, there are significant differences. The most pronounced difference is that STEP is a multi-media presentation, as opposed to APS groups being basic discussion groups using Children the Challenge (1964) by Dreikurs and Soltz as the text. Another important difference is that STEP introduces parents to communication skills presented by Dr. Thomas Gordon in his book entitled Parent Effectiveness Training (1975), whereas APS groups do not attempt to train parents in the effective use of communication skills.
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**Findings:** Results indicated that the STEP program and Dreikurs program were effective in changing parents' perceptions of interactions with their children, but generally not effective in changing parental self-concept.


**Findings:** STEP was effective in changing the mothers' perceptions of their target child's behavior. A reliability study of the APACBS yielded coefficients in the 80's and 90's. Results of the MCIE were not significant.
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<td>McKay and Hillman (1979)</td>
<td>26 volunteer mothers of 4 - 13 year olds</td>
<td>Experimental Group: 14 mothers in STEP group, Control Group: 12 mothers</td>
<td>Adlerian Parental Assessment of Child Behavior Scale (APACBS)</td>
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**Findings:** The experimental group mothers viewed their children more positively and related to them more effectively. The experimental group mothers "reported improvements in behavior that indicated their children were becoming more responsible" (McKay & Hillman, 1979, p. 32). The APACBS was validated and found to be a reliable instrument.

| Villegas (1978) | 28 Chicano volunteer mothers of children ages 4 - 14 | Experimental Group: 14 mothers in STEP group, Control Group: 14 mothers | Adlerian Parental Assessment of Child Behavior Scale (APACBS), Parental Competency Instrument (PCI) |

**Findings:** The APACBS showed mothers' increased positive opinions concerning their child's behavior after nine weeks in a STEP group. The PCI did not increase knowledge of child development principles.
Adlerian parent study groups. Freeman (1972) conducted a study to evaluate the effectiveness of Adlerian Mother Study (AMS) groups and traditional mother discussion groups on attitudes and behavior of parents and children. Other researchers have duplicated his efforts (Berrett, 1975; Croake & Burness, 1976). Freeman randomly assigned 36 volunteer mothers to two treatment groups and one waiting list control group. Fourteen mothers were assigned to the traditional mother discussion group, and 15 to the AMS group, and seven to the control group. The treatment groups met for 10 weeks in one and one half hour sessions and the control group waited 10 weeks for treatment.

Instruments used were the Attitude Toward the Freedom of Children Scale II (ATFC II in Shaw & Wright, 1967), the Child Rearing Practice Scale (CRPS) and the Child Behavior Checklist (CBC). The ATFC II measures child-rearing attitudes with a low score indicating a liberal attitude toward the freedom of children, and a high score indicating an authoritarian attitude.

The CRPS and the CBC were devised for this investigation with the author offering no information concerning the validity and reliability of these instruments.

The CRPS lists 28 specific parent practices and is filled out by an informant chosen by the mother. Through
observation, the informant lists the rate of mother behaviors such as spanking, confinement, and withdrawal of love on a five point frequency scale from never to always.

The CBC is a 53 item parent questionnaire that lists child behaviors. Parents' responses indicated four conditions including No Opportunity, Yes, No, and If Yes did it bother you? (Freeman, 1972, p. 47). The ATFCS II, CRPS, and CBC were filled out at the end of the 10 week intervention for all treatment and control group parents. This resulted in a posttest only control group design with the dependent variables being the mothers' child-rearing practices and attitudes as well as the behavior of their children.

Freeman concluded that the results of the study give strong support to proponents of Adlerian Mother Study groups. He concluded that AMS groups were more effective than no treatment groups in changing mothers' child-rearing attitudes, some child-rearing practices, and childrens' bothersome behavior. Most differences between AMS and traditional treatment conditions were insignificant.

Freeman's study was one of the first research efforts carried out on APS groups that used a rigorous design oriented toward producing behavioral results. The results
of the study could have been strengthened by using a pre and posttest control group design. Observations conducted by informants chosen by participating parents also may not yield the most reliable information. Most researchers train their observers and offer information concerning interobserver reliability (Johnson, Christensen, & Bellamy, 1976; Peed, Roberts, & Forehand, 1977; Schnelle, 1974; Wiltz & Patterson, 1974). Observer reliability information has been challenged by Zegiob, Arnold and Forehand (1975) with results indicating that the mothers interacted more positively with their children during informed observation conditions. Johnson and Lobitz (1974) showed that parents could manipulate the behavior of their children making them look deviant or non-deviant when instructed to do so during home observations.

One must question the soundness of the results when the mothers had chosen their own friends as observers, knew when the observations were taking place, and were rated by untrained observers.

Freeman's (1975) results were supported by Berrett (1975) with three groups of parents. One of the groups consisted of mothers of hearing impaired children and the other two groups consisted of randomly assigned parents of children in the general population. Findings were that treatment mothers were less authoritarian than control
mothers according to parent reports and observer ratings. With respect to bothersome behavior, general treatment parents were not significantly different from the control group in rating the level of their children's bothersome behavior, whereas the mothers of hearing impaired children scored their children's behavior as bothersome less often than control group mothers.

Croake and Burness (1976) attempted to find out how many sessions it would take for measurable changes to occur in the behavior of parents and their children as a result of their attendance in APS groups. The same instruments were used in this study as the two previous studies. Results indicated that the four week treatment group of parents had more positive gains in attitude and behavior at the end of the four weeks, however these results were questionable due to the lack of significant findings with a different group of parents who were tested at the end of six weeks. There was no evidence that the children's behavior improved during the course of the study groups.

Fears' (1976) study of six Adlerian parent groups indicated a decrease in parents' perceptions of their children's problem behavior on 23 of 40 test items from pre to posttesting. The questionnaire consisted of responses based on Adlerian theories regarding the four
goals of children's misbehavior. This instrument was developed by Fears. She also reports that according to a parental multiple choice evaluation of the study groups, parents believed there were not enough meetings, and generally meetings were too short. Despite this feedback, parents felt the groups were beneficial to the school. Numbers of parents in groups ranged from eight to 24 and meetings were also inconsistent across groups with two groups meeting four times for two hours each week, and four groups meeting one hour a week for eight weeks. No single text was read by all participants with group leaders using Adlerian articles as hand outs and audiovisual aids.

Fears' (1976) APS groups may have promoted Adlerian parent education principles, however it would be unfair to judge the effectiveness of APS groups based on this research. What the author described was certainly not the structured discussion group format advocated by Dreikurs and Soltz (1964) and other Adlerians (Articles of Supplementary Reading for Parents, 1970). The pertinence of Fears' results, therefore, should be limited to statements concerning the effectiveness of a program designed similar to APS groups.

A recent study by Moore and Dean-Zubritsky (1979) was carried out with eight parents of school-age children who
were involved in an APS group. The group used the Dreikurs' text *Children: The Challenge* (1964). Eight other parents of preschool age children who had expressed an interest in becoming involved in a parent education group served as the control group. The treatment and control group were matched on socio-economic level and age of children.

Instruments used measured attitudes toward freedom, equality, independence, and encouragement that are particularly important to the Adlerian philosophy. In addition to this, all parents were videotaped with their children for a seven minute period of time in a comfortable room set up with toys on the floor and magazines on the table. After the group, the written instruments were repeated and the parents were videotaped again under the same conditions.

Three Adlerian trained counselors who were not involved in carrying out the research rated the videotapes. All videotapes were rated at the end of the experiment with raters blind to pre or posttesting and group conditions. The raters used a modified version of the Merrill Mother-Child Interaction Scale (1946), classifying verbal and non-verbal behaviors into one of eight categories at five second intervals for a total of seven minutes with interrater agreement established at .78 prior to actual
Parents in the experimental group moved in the direction of more democratic attitudes toward children. There were no significant differences on the Parental Attitude Research Instrument. In comparison to the control group, experimental parents were in contact with their children either physically, conversationally, or on a play level more than control group parents. Experimental parents also directed more encouraging remarks to their children. The control group parents pursued independent adult activity more than interaction with their children despite the instructions that the taping would be of parent-child interactions. These findings are consistent with the Adlerian model.

The preceding section presented information relative to research and evaluation of Adlerian parent education programs. The following section will present studies of behavioral interventions reported in the literature. A general discussion regarding types of behavioral interventions with parents will be presented, however the main focus of the section will be behavioral interventions with groups of parents.

**Behavioral interventions.** Behaviorists have conducted many studies to determine the effectiveness of training
parents to work efficiently with their noncompliant children (Dubey & Kaufman, 1978; Green, Forehand, & McMahon, 1979; Rinn, Vernon, & Wise, 1975). Many have concentrated on teaching parents and teachers specific intervention techniques such as time out, extinction, and command training to deal with behavior in the home (Doleys, Wells, Hobbs, Roberts, & Cartelli, 1976; Forehand & King, 1977; O'Leary, O'Leary, & Becker, 1967), and in school (Barth, 1979; Bates, 1979). Some studies have used general parent training manuals with a behavioral orientation as a basis for helping parents deal with their referred children's aggressive behavior (Wiltz & Patterson, 1974), or more general behavior problems (Johnson & Christensen, 1975; O'Dell, 1974).

According to Bernal and North (1978):

The professional will wish to keep in mind that the more circumscribed the child's problem the more likely it is that a manual for parents will be useful. By circumscribed is meant that the problem should be very specific and confined to a given time and place.

(p. 541)

in both of these parent training manuals have been evaluated and have proven to be successful.

As stated previously, reviewers have noted the lack of quality research that has been conducted relative to behavioral child-rearing manuals published for the general public (Bernal & North, 1978; Reisinger, Ora, & Frangia, 1976). Behavioral intervention techniques presented in most general child-rearing manuals have been empirically tested for many years in the course of programmatic parent training research. The success of these studies, however, should not lead to assumptions about the ability of a parent or groups of parents to learn behavioral child-rearing skills simply by reading a manual and/or discussing its contents with a professional parent group setting.

As of 1978 only two of 16 behavioral parenting manuals published for the general public had been evaluated by the authors (Bernal & North, 1978). Patterson and Reid (1973) conducted a pre-post evaluation of a manual that reported a modest decline of negative child behaviors observed after parents had read Patterson and Gullion's (1968) text entitled Living With Children: New Methods for Parents and Teachers. This study was a replication of a 1969 study by Patterson, Ray, Shaw, and Cobb which yielded similar results (Patterson & Reid, 1973). Reliability of observers was obtained through initial
training, on-going biweekly observer training sessions, and biweekly reliability checks in the homes. Parent report data supported their findings.

These studies were both conducted with children referred for services to community agencies due to their aggressive behavior, and therefore the applicability of their findings to the general public is limited. The demonstration of significant improvements in targeted child behavior at the end of the studies was probably more of a reflection of the amount of time spent by professionals working with each family, rather than of the efficacy of the manual itself. "The mean time spent per family was 31.4 hr (range = 9.4 - 73.1 hr). These figures were comparable to those in the 1969 study (\( \bar{X} = 25.7 \) hr, range = 5.7 - 133.0 hr)" (Patterson & Reid, 1973, p. 391). Results of the Patterson and Reid study were further confounded by the need to develop classroom intervention programs for four of the 11 boys in the study. Similar studies have been conducted by Wiltz and Patterson (1974), and Johnson and Christensen (1975) yielding comparable results.

A study by Christensen in 1976 assessed the effects of a self-instructed group that read Patterson and Gullion (1976) (Bernal & North, 1978). This study compared the self-instructed group to group treatment and individually
administered family therapy. Results indicated that group treatment and individually administered family therapy were more effective than self-instruction on behavioral measures collected by home audiorecordings (Bernal & North, 1978).

Smith and Smith's (1976) text entitled Child Management: A Program for Parents and Teachers provided pre-post self examination data that demonstrated that parents had increased their knowledge of child management principles after reading their book. Objective data regarding behavioral changes was not recorded (Bernal & North, 1978).

Parents are teachers groups. Becker's (1971) manual entitled Parents are Teachers (PAT) was not field tested by the author. There were, however, nine reference notes cited for the benefit of readers that presumably support the interventions outlined for parents in the text. Parents who are interested in the results of these studies could find out more information by gathering these articles. Studies were not presented to support Becker's statement that "We have found the experimental version of this program to be extremely helpful to the average parent seeking to do a better job" (Becker, p. 1). Apparently Becker is relying on parent feedback rather than conclusive behavioral evidence to support his claim (Becker,
Other researchers have reported using PAT as the basis for their interventions with parents. Huber and Lynch (1978) conducted groups for parents with children either attending an inner city day care center or a suburban nursery school. Another group consisted of parents who were outpatients at a mental health clinic. According to the authors, the parents heard lectures, read the text, and were involved in role playing and modeling. Parents then chose a behavior, were taught to chart a baseline of the behavior (a simple record of how often the behavior occurred), and then applied appropriate principles and techniques.

On questionnaires completed by parents after they had finished the course, nearly all replied that the encouraging results of their intervention had provided them with new confidence in their ability to deal more effectively with their children. (Huber & Lynch, 1978, p. 10)

Parents who were outpatients at the mental health clinic tended to have more difficulty in applying the principles than others. Behavioral results were not reported in this article. Authors relied on participant feedback and their own judgements with respect to reporting their results. Dubey and Kaufman (1978) conducted studies with
parents of hyperkinetic and hyperactive children. Eighty-seven families enrolled in the program, with 81% of the children having been diagnosed as hyperkinetic, and the balance identified as hyperactive. Enrollment in workshops ranged from eight to 22 with the PAT manual being used as the basis for the course.

Evaluation instruments were parent opinion questionnaires with regard to the level of hyperactivity of their child and the severity of specific behavior problems, as well as a measure of the parents' knowledge of behavior management principles. Measures were administered during the first and last group sessions. All measures were evaluated for statistical significance through the use of correlated t tests. Significant reductions in the level of hyperactivity were reported in four of the six programs. Significant reductions in problem severity were evident in five of the six programs. All programs tested revealed significant increases in parents' written knowledge of behavioral principles (Dubey & Kaufman, 1978, p. 143). Follow-up data was obtained, however, conclusions based on the data were incomplete due to insufficient data collection. A weakness of this study was the lack of a control group, thereby not controlling for natural changes over time.

Dubey and Kaufman (1978) also reported the results
of a study they conducted using a control group. The parents of 26 hyperactive children were assigned either to a behavior modification group (n=19) or a delayed treatment control group (n=7). Subjects were randomly assigned. According to parent reports:

On all of the primary outcome measures relating to hyperactivity and behavioral problems, the behavior management workshop resulted in positive gains which were overwhelmingly superior to the changes over time in the delayed-treatment control group.

(Dubey & Kaufman, 1978, p. 145)

The treatment in this group involved using the PAT text and instruments were similar to the previous study. Table 2 presents the results of the studies conducted on PAT programs. The following section presents information regarding research that has been conducted comparing the effectiveness of different programs.

Studies comparing different approaches. Several comparison studies have been conducted with one parent training program matched with another. Frazier and Matthes (1975) compared parent groups using Krumboltz and Krumboltz's (1972) text entitled Changing Children's behavior, a behavioral parent training manual, to Adlerian parent study (APS) groups using Dreikurs and Soltz's (1964)
### Table 2

**Results of Studies on Parents are Teachers (PAT) Programs**

<table>
<thead>
<tr>
<th>Author</th>
<th>Population</th>
<th>Groups</th>
<th>Instruments</th>
</tr>
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<tbody>
<tr>
<td>Dubey &amp; Kaufman</td>
<td>87 families -- 71% completed the program. 81% of these parents had children diagnosed as hyperkinetic. 66% had been identified as having &quot;minimal brain dysfunction.&quot;</td>
<td>Experimental Groups: six clinical programs with between 9 and 17 parents in each program, PAT manual was used.</td>
<td>Werry-Weiss-Peters Activity Scale (WWP) Problem Severity Ratings Behavioral Vignettes Test (BVT)</td>
</tr>
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</table>

**Findings:** In four of the six programs, there appeared a reduction in hyperactivity. Five of the six programs revealed reduction in severity of the problems. In four of the programs, the parents demonstrated greater written knowledge of behavior management skills. Follow-up data obtained six to nine months following the study revealed that the results remained significant.
<table>
<thead>
<tr>
<th>Author</th>
<th>Population</th>
<th>Groups</th>
<th>Instruments</th>
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</thead>
<tbody>
<tr>
<td>Dubey &amp; Kaufman</td>
<td>Parents of 26 hyperactive children</td>
<td>Experimental Group: 19 parents assigned to a behavior modification group, PAT manual was used. Control Group: 7 parents in delayed treatment.</td>
<td>Werry-Weiss-Peters Activity Scale (WWP) Seven point global improvement rating Daily Checklist of Problem Occurrence</td>
</tr>
</tbody>
</table>

**Findings:** The WWP showed that the activity level of the treatment group children decreased significantly as compared to the control group. The problem severity ratings also revealed a significant decrease with the treatment group. On the Daily Checklist of Problem Occurrence, the treated group scores decreased by a mean of 38%, while the control group's scores increased. In general, "the behavior management workshop resulted in positive gains which were overwhelmingly superior to the changes over time in the delayed-treatment control group" (Dubey & Kaufman, 1978, p. 145).
Seventy-four parents were randomly assigned to either the behavioral, Adlerian, or no treatment control conditions. Each group of parents in the treatment conditions met 10 times in one and one-half hour meetings. The treatment groups were separated into four groups with approximately 10 parents in each group. Two counselors led the groups with both counselors leading one behavioral and one Adlerian group in an attempt to control for the effects of the leaders. Only parents who attended 60% of the meetings and completed all instruments were included in the data analysis. The study employed a posttest only control group design.

Results indicated that parents who attended the APS groups were less restrictive in their attitudes toward the freedom of children than either the behavioral or control groups. APS group parents were also found to be more consistent and more inclined to use logical consequences and discipline related to the child's misbehavior than parents in the behavioral condition. Finally, there were no significant differences in parental perceptions of their children's behavior, and according to reports of familiar observers, there were no changes in their children's behavior as a result of the intervention.

The results of this study were confounded by a parent feedback instrument indicating that when counselors were
leading the APS groups they were significantly more encouraging than when they were leading the behavioral groups. This study could have been strengthened by adding pretest measures, including all participants in the data analysis, developing independent measures appropriate to both Adlerian and behavioral interventions, and employing objective trained observers rather than "an intimate observer, usually the spouse" (Frazier & Matthes, 1975, p. 34). Tavormina (1974) also suggests that "differences in design and measurement techniques have been barriers to comparative research on behavioral and reflective counseling" (p. 833). He also proceeds to mention that involved parents may tend to report improvements when behaviors are not really changing.

Another study conducted by Schultz, Nystul, and Law (1980) compared the ability of several parent education groups to produce and maintain changes in maternal attitudes. Four experimental groups were used including the following interventions: (a) Parent Effectiveness Training group (Gordon, 1975), (b) Adlerian Parent Study (APS) group, (c) Behavior Modification group, and (d) Placebo group. A non attendant control group was also used in the data analysis. Subjects were matched according to socioeconomic status, ages of fathers and mothers, and number of children per family. Experimenters used a
pre-posttest control group design to evaluate the attitude change of mothers as an outcome of participation in the various parent education programs.

Results indicated significant short term and long term positive attitude changes occurred with mothers as a result of all three intervention models as compared to the control group mothers. No behavioral measures were used.

Freeman (1972) compared two traditional mother study groups to two Adlerian Mother Study (AMS) groups, and a control group. Traditional group mothers held discussions based on current problems. AMS group mothers followed a structured discussion format and read *Children: The Challenge* by Dreikurs and Soltz (1964). Control mothers received no parent education. Freeman used a posttest only control group design.

Freeman concluded that AMS groups were more effective than no treatment in changing mothers' child-rearing attitudes and practices. Traditional groups had many positive trends but few had statistically significant differences from AMS and control groups.

Through this research review it is obvious that measures geared toward reporting behavioral results have often been overlooked in studies of parent education programs. Frazier and Matthes (1975) suggest that the ultimate goal of the parent education program is
to improve the quality of life for the children. To change the attitudes and behavior of parents is meaningless unless it results in changes in the behavior and attitudes of children. (p. 38)

The next section describes a study developed to evaluate changes in parents' perceptions of their children's behavior. This study illustrates mother-child interactions and changes that may occur as the result of involvement in a parent education program. The following chapter presents the hypotheses, instruments, and procedures used for this research study.
CHAPTER III
METHODOLOGY

A great number of parent education training programs are currently available to parents, counselors, and others who are interested in helping parents either increase their awareness of parenting skills, or change some of their methods of interacting with their children (Becker, 1971; Dinkmeyer & McKay, 1976; Dreikurs & Soltz, 1964; Gordon, 1975; Guerney, 1964; Patterson, 1975). Although some programs have been field tested or appear to be based on sound psychological principles, empirical evidence of their effectiveness is missing.

The following study addressed this problem by studying the impact and treatment effects of three different parent education programs on the attitudes of mothers and their three to five year old children.

This chapter presents a discussion of the methods employed in developing and implementing this research study. The purpose, hypotheses, and procedures used will be discussed in detail. The following section will outline the purpose of this project.

Purpose

The purpose of this research was to compare the effectiveness of the Systematic Training for Effective
Parenting (STEP) (Dinkmeyer & McKay, 1976) program, a largely Adlerian based program that incorporates communication skills training, to two other parent group education programs. The second program was Parents are Teachers (PAT) (Becker, 1971), and the final program was entitled Exploring Parenting (EP) (US Department of Health, Education & Welfare, 1978). PAT stressed the development of behavioral child-rearing principles and skills for parents, whereas EP was a discussion group program oriented toward helping mothers explore the infinite possibilities in parenting.

The following areas were investigated: (a) the acquisition of information about parent education by parents, (b) parental reports regarding parent-child interactions at the beginning and end of the interventions, (c) behavioral interactions between mother and child in a laboratory environment.

The next section presents the specific hypotheses proposed for this research study. A brief discussion of the implementation and outcome hypotheses will follow.

Specific Hypotheses

Eight hypotheses are proposed for this research project. The first hypothesis is the implementation hypothesis which tests the parents' knowledge of concepts
presented in each respective program. The seven remaining hypotheses address themselves to the effect of the interventions on parents' perceptions of their children's behavior, and to the behavioral interactions of parents and their children.

**Implementation hypothesis.** Parents involved in the STEP program, PAT program, and EP program will demonstrate significant improvement in their knowledge of concepts presented in each respective program from pretest to post-test as measured by the appropriate concept evaluation instrument.

The reason for this implementation hypothesis is that the researcher would consider it impossible to generate reliable information concerning the outcome hypotheses, unless parents indicate a mastery of concepts presented in the respective interventions.

**Outcome hypotheses.**

*Hypothesis 1.* Parents who attend the STEP program will report greater improvement in their perceptions of their children's behavior than parents involved in the PAT or EP programs as measured by an adaption of Fears' (1976) parent questionnaire at the end of each respective program.
Hypothesis 2. Parents who attend the PAT program will report greater improvement in their perceptions of their children's behavior than parents involved in the EP program as measured by an adaptation of Fears' (1976) parent questionnaire at the end of each respective program.

Hypothesis 3a. Parents attending STEP will interact significantly more effectively with their children at the end of the program as measured by the Response-Class Matrix of parent-child interactions (Mash, Terdal, & Anderson, 1973) in the laboratory setting.

Hypothesis 3b. Children of parents attending STEP will interact significantly more effectively with their parents at the end of the program as measured by the Response-Class Matrix of parent-child interactions in the laboratory setting.

Hypothesis 4a. Parents attending PAT will interact significantly more effectively with their children at the end of the program as measured by the Response-Class Matrix of parent-child interactions in the laboratory setting.

Hypothesis 4b. Children of parents attending PAT will interact significantly more effectively with their parents at the end of the program as measured by the Response-Class Matrix of parent-child interactions in the
laboratory setting.

**Hypothesis 5a.** Parents attending EP will interact significantly more effectively with their children at the end of the program as measured by the Response-Class Matrix of parent-child interactions in the laboratory setting.

**Hypothesis 5b.** Children of parents attending EP will interact significantly more effectively with their parents at the end of the program as measured by the Response-Class Matrix of parent-child interactions in the laboratory setting.

**Hypothesis 6a.** Parents attending STEP will interact significantly more effectively with their children in the laboratory condition in comparison to PAT and EP parents, as measured by the Response-Class Matrix of parent-child interactions at the end of each respective program.

**Hypothesis 6b.** Children of parents attending STEP will interact significantly more effectively with their parents in the laboratory condition in comparison to children of PAT and EP parents as measured by the Response-Class Matrix of parent-child interactions at the end of each respective program.

**Hypothesis 7a.** Parents attending PAT will interact significantly more effectively with their children in the laboratory condition in comparison to EP parents as
measured by the Response-Class Matrix of parent-child interactions at the end of each respective program.

**Hypothesis 7b.** Children of parents attending PAT will interact significantly more effectively with their parents in the laboratory condition in comparison to children of EP parents as measured by the Response-Class Matrix of parent-child interactions at the end of each respective program.

The following section will describe the instruments used to obtain data regarding each hypothesis. Copies of the instruments are included in the appendix.

**Instruments**

Three instruments were used to investigate the hypotheses proposed for this research project. The instruments are a concept evaluation instrument, a parent questionnaire, and the Response-Class Matrix of parent-child interactions.

**Concept evaluation instrument.** The implementation hypothesis relates to the different concept evaluation instruments developed for each parent group. The concept evaluation instrument was developed to assess each subject's knowledge of the material presented in the different parent groups. These measures also assess each subject's ability to apply the principles learned in each
group to examples of conflict-laden situations in parent-child relationships.

The concept evaluation instruments for the STEP and PAT groups are very similar. They are 25 item questionnaires with a range of possible scores from 0 (no correct responses) to 25 (all correct responses). On each item, parents had three responses from which to choose. The choices are A (agree), D (disagree), and ? (don't know). The "don't know" choice is ignored in the scoring. The major difference between these two instruments is that the STEP instrument tests the acquisition and application of Adlerian principles, whereas the PAT instrument tests the acquisition and application of behavioral principles.

The EP concept evaluation instrument is a 22 item questionnaire designed to assess the attainment of the EP program's objectives. Possible scores range from 0 (no correct responses) to 22 (all correct responses). This instrument is more general due to the nature of the EP parenting program which does not adhere to or present one philosophical approach to child rearing. More information is presented regarding the EP intervention later in this chapter. Parents had the same choices on this instrument as they had on the PAT and STEP instruments--A (agree), D (disagree), and ? (don't know). The "don't know" choice is again ignored in the scoring of the questionnaire.
A \( t \) test was done on the total mean score of each group in both the pretest and posttest conditions to determine the standard deviation and the level of significance of the gains. Tables present information regarding pretest means and pretest standard deviations, posttest means and posttest standard deviations, \( t \) values, and the level of significance of the results.

**Parent questionnaire.** Hypotheses 1 and 2 were tested by the parent questionnaire which is an adaptation of a measure developed by Fears (1976). This measure reported information concerning parent's perceptions of behavioral changes in their children. The revised parent questionnaire contains 34 behavioral items determined to be appropriate for preschool children by Head Start staff members. Parents report the frequency of behaviors on a four point scale as occurring almost always, frequently, once in a while, or never on a scale of 1 to 4. The range for the entire instrument is from 34 to 136. The higher the final score, the more desirable is the parent's perception of the child's behavior; the lower the score, the more undesirable is the parent's perception of the child's behavior.

A \( t \) test was done on the total posttest mean scores of each group to determine the standard deviation and the level of significance of the gains. Tables present
information comparing the experimental group's posttest mean scores, standard deviations, t values, and levels of significance. Significance was established at the .05 level of significance for hypotheses 1 and 2.

**Response-Class Matrix.** The Response-Class Matrix (Mash, Terdal, & Anderson, 1973) is a behavioral recording instrument that enables observers to record the interactions of two subjects—in this case a parent and child dyad—on one standard instrument. The Response-Class Matrix is the measure used in hypotheses 3 through 7.

Two observers are used—one records the mother's behavior, and the other records the child's behavior. The observer concentrating on the mother records the mother's behavior as an antecedent and the child's behavior as a consequent. The observer concentrating on the child records the child's behavior as an antecedent, and the mother's behavior as a consequent. In this way the use of the Response-Class Matrix provides a way of ordering and describing the interactions of mother and child.

Records of mother-child interactions are obtained by using the matrices shown in Figure 11 and Figure 12 located in the appendix. Figure 11 illustrates the mother's matrix, and Figure 12 illustrates the child's matrix.
Hypotheses 3a, 4a, and 5a were tested by obtaining the percentage of the mothers' positive responses in the laboratory condition as measured by the Response-Class Matrix. Mothers' total positive responses in the pretest condition were compared to mothers' total positive responses in the posttest condition.

Hypotheses 3b, 4b, and 5b were tested by obtaining the percentage of the children's positive responses in the laboratory condition as measured by the Response-Class Matrix. Children's total positive responses in the pretest condition were compared to children's total positive responses in the posttest condition.

Hypothesis 6a was tested by obtaining the percentage of the mothers' positive responses in the laboratory condition as measured by the Response-Class Matrix. STEP mothers' total positive responses in the posttest condition were compared to PAT and EP mothers' total positive responses in the posttest condition.

Hypothesis 6b was tested by obtaining the percentage of the children's positive responses in the laboratory condition as measured by the Response-Class Matrix. Children of STEP mothers' total positive responses were compared to children of PAT and EP mothers' total positive responses in the posttest condition.
Hypothesis 7a was tested by obtaining the percentage of the mothers' positive responses in the laboratory condition as measured by the Response-Class Matrix. PAT mothers' total positive responses were compared to EP mothers' total positive responses in the posttest condition.

Hypothesis 7b was tested by obtaining the percentage of the children's positive responses in the laboratory condition as measured by the Response-Class Matrix. Children of PAT mothers' total positive responses were compared to children of EP mothers' total positive responses in the posttest condition.

Hypotheses 3a, 4a, 5a, 6a, and 7a yield information regarding the mothers' positive responses to their children during the whole interaction in videotaped recording sessions during the pretest and posttest sessions. Hypotheses 3b, 4b, 5b, 6b, and 7b yield information regarding the children's positive responses to their mothers during the whole interaction in videotaped recording sessions during pretest and posttest sessions.

The mean percentage of positive responses by the mother and by the child are computed for pretest and posttest sessions, and a comparison of the proportions is reported in tables presented in chapter four. For hypotheses 3a through 7a, the mother's positive responses to the
total interaction is computed by dividing the sum of cells 43, 44, 46, 47, 51, 52, 54, and 55 by the sums of cells 41 through 56 on the mother consequent matrix form. The following formula applies:

\[
\frac{43+44+46+47+51+52+54+55}{41 \text{ through } 56}
\]

For hypotheses 3b through 7b, the children's positive responses to the total interaction is computed by dividing the sum of cells 36, 40, 41, 45, 47, and 48 by the sum of cells 36 through 49 on the child consequent matrix form. The following formula applies:

\[
\frac{36+38+40+41+45+47+48}{36 \text{ through } 49}
\]

Copies of the mother consequent matrix form and the child consequent matrix form are included in the appendix.

In summary, the implementation hypothesis generates useful information regarding each treatment condition. It measures one of the dependent variables which is parents' knowledge of material and principles presented in each program. Outcome hypotheses 1 and 2 measure the parents' perception of their children's behavior as another dependent variable. Finally, outcome hypotheses 3 through 7 measure the final dependent variables which are the parents' and children's behavior.

The following section describes the setting where the study was held.
Setting

The study was held at a Head Start program site at 124 School Street in Taunton, Massachusetts. The Head Start program is a federally funded comprehensive child development program serving approximately 120 preschool children and their families. Of these children, 90% are from low income families and 10% have special needs. Among the services offered to families are a health program, dental program, and social service program.

There are two major interventions offered in the Head Start program, a center-based program and a home-based program. The two programs are distinct from each other. Children who attend the center-based program are involved in the classroom five days a week for 3½ hours each day. The curriculum includes a free choice time, breakfast, music, language development, gross motor activities, cognitive learning activities, and a hot lunch period. Individualized programming is planned focusing on each child's needs.

Families involved in the home-based program are visited once per week by the Home Visitor for 1½ hours. The objectives of the visit are to teach the parent appropriate child-rearing skills such as proper nutrition and health care. Social skills of children involved in
the home-based program are enhanced by having the children attend the center and be involved in group play activities once per week.

The following section presents demographic information regarding the population used for this study. In order to protect the confidentiality of the parents, the Head Start director was unable to supply specific data about each subject.

**Samples**

Volunteer mothers were randomly assigned to the three treatment conditions. The original sample consisted of 38 parents and 38 children. The number of parents who actually completed the project changed from the original 38 to 18. Six parents completed the STEP program, seven completed the PAT program and five completed the EP program.

Demographic information supplied by the Family Intervention Specialist indicated that none of the parents were college educated and 30% had received high school diplomas; 50% of the parents were single; 22% of the parents were non-white; their average age was 30; their income ranged between $3,000. and $6,000. per year; most parents were welfare recipients; and the average family had two children. Of the preschool children to be involved in the study, 17 of the 18 were between three and five years of
age, and the remaining child was a kindergarten student between five and six years of age.

Attendance. Out of a possible 9 sessions, STEP subjects attended 61.11% of the meetings, and PAT subjects attended 63% of the sessions out of a possible 10 sessions. EP subjects attended 64% of the meetings out of a possible 20 sessions. The mean percentage for attendance across groups is 62.67%. Some of the reasons, given by the participants, that may have affected the drop-out rate and the rate of attendance were: (a) death in the family, (b) sickness in the family, (c) change in employment status, and (d) a conflict with another group member.

The following section describes the three treatment conditions. Parents were involved in the STEP program (treatment 1), the PAT program (treatment 2), and the EP program (treatment 3).

Treatment

The parent groups were involved in one of three treatment conditions. Treatment group one, STEP, received the 9 week training experience recommended by the authors. The second group, PAT, received the recommended 10 week training, and the third group, EP, received the prescribed 20 week training experience.

Parents in all groups were given the pertinent
parent manual to keep as a result of their involvement in the research project. In order to encourage attendance and participation, a 15 minute informal "warm-up" session was held prior to each group meeting with coffee, tea, and pastry available at no charge to group members. Cookies and other treats were occasionally made available for parents to take home to their children after meetings. The group leaders also called parents periodically during the project to keep in contact and to encourage continued participation.

**Treatment 1 (STEP).** The leader followed instructions in the leader's manual provided with the audio-visual package for conducting STEP groups. The contents of the STEP program have already been discussed. The following outline clarifies procedures and content on a session by session basis.

**Session 1.** The concepts of social equality and the goals of positive and negative behavior were presented. Parents were encouraged to learn the reasons why their children misbehaved and were asked to observe and analyze their children's behavior as the homework activity of the week.

**Session 2.** Information regarding human emotions was presented. This session also dealt with how parents and children can become caught up in negative behavior
patterns. The concepts of the "good" parent and lifestyle were introduced. The parents' activity for the week involved applying what they had learned about their children's emotional displays and about themselves as the "good" parent.

**Session 3.** Parents learned the difference between praise and encouragement. Parents were told to find ways to encourage their children and to try them out prior to the next session.

**Session 4.** Parents were taught how to use "active listening" skills when communicating with their children. Parents were told to practice their new communication skills during the following week by reflecting the feelings and meanings behind their children's words.

**Session 5.** Parents were introduced to the concept of problem ownership. Parents learned how to explore alternatives and problem solve with their children for their weekly activity.

**Session 6.** The use of natural and logical consequences was stressed as the best alternative for encouraging responsible behavior. Parents practiced the use of natural and logical consequences until the next meeting.

**Session 7.** Parents continued to explore the use of natural and logical consequences in specific situations. The activity for the week encouraged parents to pick out
a specific problem with one of their children and to plan
a new course of action using natural and logical conse-
quences.

Session 8. The establishment of family meetings
where parents could meet with their children and take care
of family business was presented. Parents were told to
hold a family meeting before the next session.

Session 9. This was the final meeting. The contents
of the course were reviewed and parents were encouraged to
continue using their newly acquired skills.

The beginning of each STEP group consisted of receiv-
ing feedback from parents about their activity for the
week. This helped blend one session into another and gave
parents a chance to discuss problems they may have encoun-
tered in trying to act differently with their child.

Treatment 2 (PAT). The leader followed instructions in
the PAT group leader's guide. This involved intermittent
reinforcement of parents for attending groups, checking on
homework assignments, distributing gifts for children, and
conducting a short social period at the end of each ses-
son.

Session 1. Parents were introduced to the concept of
time out, and were required to read a behavioral vignette.
Parents also learned about the proper use of reinforcement
techniques and the value of ignoring. Parents completed
Exercise I which reinforced the concepts and vocabulary in chapter one.

**Session 2.** Parents were introduced to "grandma's rule" and learned about different reinforcers. Exercises reinforcing the text were completed prior to the next meeting.

**Session 3.** Parents were taught when to reinforce and when to ignore. Parents completed an exercise and began recording notes about a behavior to be changed during the next session.

**Session 4.** Parents learned how to chart behaviors and implement token economy programs. Their homework for the week involved answering questions about the text and implementing a token reinforcement system with one of their children at home.

**Session 5.** Parents were required to read a continuation of the behavioral vignette begun in Session 1. They also learned more vocabulary in order to be prepared for the next session.

**Session 6.** The "criticism trap" and the use of praise were stressed. The homework for parents included a fill in the blank exercise on learning how to record their own praising and criticizing behavior.

**Session 7.** Parents were taught about praising effectively by learning to make praise descriptive of the
behavior rather than the whole child. They were also introduced to social reinforcers. End of the session exercises included a procedure to help parents increase their praising behavior and reduce their critical comments.

Session 8. The positive use of punishment was stressed and parents learned rules to remember about the effective use of punishment. Parents practiced and recorded their use of effective punishment techniques prior to the next session.

Session 9. Parents were introduced to the use of reasons, rules, and reminders. This session's activity for the week included choosing an undesirable behavior and using any strategy presented thus far to weaken it.

Session 10. Parents discussed personality and personality traits. Parents learned that their child's personality is affected by how their parents teach them to behave. The parents' activity for the week was to respond to 10 behavioral vignettes employing their newly learned behavioral principles.

PAT sessions encouraged parents to raise questions regarding any home projects they had begun as a result of their involvement in the program. This brought about group discussions that helped clarify concepts and promote cohesiveness.
The STEP and PAT treatment groups were conducted by the researcher. The researcher had prior experience conducting parent training using both programs with groups of parents.

**Treatment 3. (EP).** The EP program was introduced into Head Start programs nationwide at approximately the same time the research project began. The original research design called for this treatment group to be a waiting list control group, however due to equipment failure, the project began later than originally planned. This caused a problem in that the Head Start program had to have a parent education program begun by a prescribed date or risk losing a certain amount of funding for parent education in the next year. Due to this situation, two staff members who were previously trained to conduct the EP parent education program conducted group sessions with parents who had previously been randomly assigned to the control group condition. The Family Intervention Specialist and the Social Worker co-led the group experience for this intervention. They were both trained counselors with several years experience in the field.

A general sense of the EP program's goals and content is presented in the following paragraphs prior to outlining the session by session format.
The EP program had been chosen as the national Head Start organization's preferred parent education program. As mentioned previously, Head Start personnel were involved in a training program prior to running workshops with parents.

The program is carried on with parent groups and is often presented by two group leaders. Sessions are two hours long and there are 20 sessions in the course of one program. Parents are involved in role-playing activities, brainstorming, group discussions, and personal growth activities. Parents are not required to read as much material or complete as many homework activities for the week as they are in the STEP and PAT programs. They are introduced to current philosophies regarding parenting and do not study one philosophical approach or learn to apply one set of techniques. The EP group leaders followed these general guidelines in their sessions with parents. The following session by session outline will clarify the content and manner of presentation of the materials.

Session 1. Parents learned how a young child views the world as a result of their height. Parents sat on the floor and experienced what it might be like to be two or three feet tall. Parents were encouraged to find ways to arrange things in their home to help their children be more comfortable. Parents also experimented with
children's toys and activities to help them learn how to play with their children at home.

Session 2. Parents were taught how to brainstorm. They used their brainstorming skills to learn why children behave the way they do and the importance of how parents react to behavior. Discussions were held on how professionals such as Dr. Haim Ginott and Dr. Thomas Gordon advise parents to respond to their children.

Session 3. Parents learned to analyze their children's problems through the use of role-playing. Parents were also introduced to Dr. Thomas Gordon's thoughts regarding "I messages" and "You messages".

Session 4. Parents explored new communication techniques by concentrating on an example of a problem situation with a child.

Session 5. Parents reflected on the need for continued development for all people. Parents were encouraged to collect information on the growth and development of one of their children.

Session 6. Parents discussed special needs children and what it means to be handicapped. Parents defined "special needs" and "handicapped" and decided whether or not there was a difference between having special needs and being handicapped.

Session 7. Parents continued to learn about playing
with their children and making it a profitable experience for both parent and child.

Session 8. Parents learned to watch their children when they are doing art work and to respond to the children's products in a positive way.

Session 9. Parents experimented with their own artistic abilities. Parents learned how the temperament and experiences of artists are reflected in their work.

Session 10. Parents explored the emotion of fear and learned how to help their children cope with its effects. They were encouraged to help their children find a way to help themselves.

Session 11. Parents learned how to deal with their children's anger and how to avoid creating anger-provoking situations. Parents were taught to channel their child's energy into supervised play activities.

Session 12. Parents considered ways of nurturing children while fostering independent growth at the same time. Parents developed an awareness of the dependence of all human beings on others, and the needs that children have during their developmental years.

Session 13. Parents developed a portrait of the ideal child. They considered behavioral traits and discussed how these traits are reflected in their children's behavior at home.
Session 14. Parents discussed different ways of influencing and dealing with behavior at home. They defined discipline and were encouraged to explore the use of positive disciplinary techniques.

Session 15. Parents explored and discussed family life in their own homes.

Session 16. Parents explored the problems and possibilities available to parents as single parents and how a child may be affected by being a member of a single parent family.

Session 17. Parents discussed the perceptions of different professionals regarding children's coping skills. Parents explored their own and their children's coping skills.

Session 18. Parents developed a better understanding of stress and its effect on themselves and their families. They explored different avenues for dealing with stress.

Session 19. Parents learned how accidents can happen to children and how they could be prevented. They learned that accidents often happen when people are under stress.

Session 20. Parents discussed the adverse effects of discrimination and racism and explored how they limit human potential and growth.

As mentioned previously, the EP intervention differs significantly from the others in the amount of time...
participants spent "in school". EP students spent 40 hours in the classroom while STEP and PAT subjects logged approximately 15 hours in the classroom. Participants in the EP program, however, spent very little time involved in "homework" activities, so that the total amount of parent education time per intervention is more evenly distributed than would appear on the surface. The other striking difference between these programs is the breadth of the subject matter presented in the EP treatment. The EP program does not emphasize specific parenting skills for child rearing as much as the other two interventions, therefore this program is seen as a minimum intervention treatment group.

In the following section, the procedures used for this research study will be presented. This will include a description of the laboratory condition, the observers, and the behavior sampling technique.

Procedure

A meeting was arranged with the Director and the Family Intervention Specialist of the Head Start program in Taunton, Massachusetts. The purpose of the study was explained and materials were reviewed. Upon acceptance of the proposal, arrangements were made to contact parents and initiate the program.
Parents were informed of the parent education groups through a monthly newsletter. Interested parents were instructed to contact the Head Start program office. All interested parents were then invited to an organizational meeting where the purpose and procedures to be followed were explained. Parents were also encouraged at this time to discuss problems they may encounter being involved in the study, particularly with respect to attendance and videotaping requirements. Many parents raised concerns regarding attendance due to transportation difficulties and babysitting of children while they were attending groups. Some parents did not want to be involved in the videotaping sessions with their children.

The transportation problem was dealt with by offering free transportation to and from the Head Start site for all interested parents. Free babysitting services were also arranged for parents who indicated the need. These services were provided through the Taunton Head Start program.

The small number of parents who did not want to be videotaped were informed that they would not have to be involved in this segment of the study. This was possible because the number of parents who were to be taped was only five from each treatment group, and at this time the total number of volunteers was 38.
Laboratory condition. Volunteer parents from the treatment conditions were videotaped during 30 minute sessions in a pretest and posttest laboratory setting. The 30 minute setting was divided into two 15 minute segments. The first segment was a free play activity and the second was a command activity.

During the 15 minute free play activity, mothers were told only that this was a free play period. During the last 15 minutes, the command activity segment, mothers were instructed to (a) have their children put away the toys with which they were playing, (b) have their children copy several geometric designs on a blackboard, and (c) have their children play alone on the other side of a tape line. At the end of the session parents were instructed to have their children put the toys away for a second time prior to leaving the room.
Figure 3. Sketch of the laboratory environment where parents and children were videotaped.

The laboratory environment illustrated in Figure 3 at one time served as a stage in the old school building where the Head Start program is held. When the curtains were drawn it formed a comfortable environment away from the mainstream of the program.

The camera was hidden from the children by a two way mirror and by a curtain. The researcher operated the videotape equipment during both the pretest and posttest laboratory conditions. All parents were given
instructions verbally as well as having the instructions written on a chart and posted in the laboratory environment.

Observers. The researcher enlisted the services of two volunteer observers to code the videotaped interactions between mothers and children.

One of the observers, the spouse of the investigator, holds a master's degree in education. She has worked with special needs children and their parents for six years in private agencies and public schools.

The other observer holds a master's degree in special education, and has worked with special needs children and their families for six years in public schools.

Training consisted of two four hour sessions. In the first session, the researcher outlined the general procedure of "The Response-Class Matrix: A Procedure for Recording Parent-Child Interactions" (Mash, Terdal, & Anderson, 1973), and observers were instructed to read and discuss the standard behavior categories. Specific points were underscored in the provided text, and these points were written on a wall chart. Observers verbally quizzed each other and also practiced the scoring techniques with written examples provided by the authors.

In the second training session, the observers once again reviewed all of the written material. For the
remainder of the time, the observers practiced the response-class coding procedure by viewing actual films of mother-child interactions. The observers frequently discussed the scoring throughout the film observations. Practice with the films continued until both observers felt confident with the coding procedure and were able to comfortably score the interactions within the designated time limits. At the end of the second training session, an initial reliability test was taken. The initial percent of observer agreement at the end of training was 98%. A midway reliability check of observer agreement was found to be 94%. The final reliability check of observer agreement was tallied to be at 80%.

Behavior Sampling. The Response-Class Matrix facilitates the recording of behaviors by employing a behavior sampling technique rather than continuous recording. Observers spend 10 seconds recording behaviors and then pause for 10 seconds. Figure 4 indicates the recording sequence followed for each scoring.
Figure 4. The coding procedure for the response-class matrix.
Research Design

Figure 5 illustrates the research design. The first column indicates the random assignment of subjects to groups, the number of subjects in the three different experimental groups, and the number of subjects evaluated with each evaluation instrument. The figure also illustrates that three groups were evaluated and when they were evaluated during pretest and posttest conditions.
<table>
<thead>
<tr>
<th>Randomly Assigned Treatment Groups</th>
<th>Pretest</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) STEP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 parents evaluated with measures 1 and 2</td>
<td>1. Concept evaluation instrument</td>
<td>1. Concept evaluation instrument</td>
</tr>
<tr>
<td>3 parents evaluated with measure 3</td>
<td>2. Parent questionnaire</td>
<td>2. Parent questionnaire</td>
</tr>
<tr>
<td></td>
<td>3. Response-class matrix</td>
<td>3. Response-class matrix</td>
</tr>
<tr>
<td>(2) PAT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 parents evaluated with measures 1 and 2</td>
<td>1. Concept evaluation instrument</td>
<td>1. Concept evaluation instrument</td>
</tr>
<tr>
<td>7 parents evaluated with measure 3</td>
<td>2. Parent questionnaire</td>
<td>2. Parent questionnaire</td>
</tr>
<tr>
<td></td>
<td>3. Response-class matrix</td>
<td>3. Response-class matrix</td>
</tr>
<tr>
<td>(3) EP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 parents evaluated with measures 1 and 2</td>
<td>1. Concept evaluation instrument</td>
<td>1. Concept evaluation instrument</td>
</tr>
<tr>
<td>4 parents evaluated with measure 3</td>
<td>2. Parent questionnaire</td>
<td>2. Parent questionnaire</td>
</tr>
<tr>
<td></td>
<td>3. Response-class matrix</td>
<td>3. Response-class matrix</td>
</tr>
</tbody>
</table>

Figure 5. An illustration of the research design including timelines for pre and posttesting.
Limitations of the Study

There are a number of factors in this study that may have had an effect on the results.

Sample. The original number of parents participating in the project was 38. The final population included in this study dropped to 18 parents.

The rate of attrition and the resultant small size of the sample suggests that the results of the project should be viewed conservatively.

Parent manuals. The readability of the parenting literature may have had a significant effect on the results of this study. The estimated reading level of the PAT text is seventh grade (Andrasik & Murphy, 1977; Arkell, Kubo & Meunier, 1976; Bernal & North, 1978). The estimated reading level of the STEP text is tenth grade (McBrien, 1979).

Reading ability can be a crucial factor in the success of a parent study course. None of the participants in this project were college educated and only 30% had received high school diplomas. Participants may not be able to demonstrate conceptual and behavioral gains if the required text is written at or above their reading frustration level.
Group leaders. The group leader for STEP and PAT was the researcher. Although the researcher had led both STEP and PAT groups in the past, he had more experience in leading STEP groups. The researcher, however, attempted to maintain impartiality in his presentations.

The EP group was led by two Head Start staff members. Both staff members had attended a series of training workshops for EP group leaders. This was, however, their first experience in leading the EP parent education program. This may have had an effect on the consistency of the presentations.

Measures. The concept evaluation instruments developed for this study were not field-tested prior to their use in this research. The parent questionnaire, an adaptation of Fear's (1976) behavior questionnaire, was also not validated prior to its use. In regards to the Response-Class Matrix, it is possible that the way in which it groups behaviors under general classifications may favor one program over another. It also implies a "right" way for parents to react to their children creating a strong potential for cultural bias. The question must be raised as to whether the instruments used were sensitive enough to measure the differences in the mothers' knowledge of parenting concepts, their
perceptions of their children's behavior and appropriate interactions in the laboratory environment.

**Summary**

This chapter has presented the methods designed to carry out the research. The hypotheses were presented as well as the instruments, setting, sample, treatment, procedures, research design, and the limitations of this study. The following chapter will describe in detail, the analysis of the data, hypothesis by hypothesis.
CHAPTER IV

RESULTS

The purpose of this research was to determine whether any positive changes would be demonstrated in parent-child interactions as a result of the mothers' involvement in one of three different parent education groups. The total number of parents who were involved in the experimental groups was 18. Eighteen of their preschool or kindergarten age children were also involved in the research.

Parents attended one of three treatment groups. The first treatment condition was an Adlerian based parent education program entitled Systematic Training for Effective Parenting (STEP), in which six mothers participated for a nine week period of time. The second treatment condition involved the participation of seven mothers in a behavioral parent education program entitled Parents are Teachers (PAT). The third treatment condition involved five mothers who attended an Exploring Parenting (EP) parent education group for 20 weeks.

All parents were asked to complete the appropriate concept evaluation instruments in pretest and posttest conditions. These instruments were used to measure the acquisition of concepts and information presented in each treatment group. Parents also completed the parent
questionnaire in pretest and posttest sessions in order to generate information regarding the parents' perceptions of their children's behavior. In addition to this, volunteer parents in each group were videotaped interacting with their children in pretest and posttest sessions. Their interactions were then scored by two observers using the Response-Class Matrix of parent-child interactions (Mash, Terdal, & Anderson, 1973).

This chapter will present the results of the analysis of the data collected during this research project as it related to each of the hypotheses.

**Analysis of the Data**

In this section data will be presented regarding the hypotheses developed for this study and the statistical analysis completed for each.

**Implementation hypothesis.** Parents involved in the STEP program, PAT program, and EP program will demonstrate significant improvement in their knowledge of concepts presented in each respective program from pretest to posttest as measured by the appropriate concept evaluation instrument. A pretest and posttest analysis of the concept evaluation instrument scores is presented in Table 3.
Table 3
Pretest and Posttest Analysis of the Three Groups on the Concept Evaluation Instrument

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest Mean</th>
<th>Posttest Mean</th>
<th>Mean Difference</th>
<th>t Value</th>
<th>Significance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>STEP</td>
<td>11.00 (3.85)</td>
<td>15.83 (3.66)</td>
<td>4.83</td>
<td>3.64</td>
<td>.01</td>
</tr>
<tr>
<td>PAT</td>
<td>16.86 (2.91)</td>
<td>21.57 (2.99)</td>
<td>4.71</td>
<td>3.96</td>
<td>.01</td>
</tr>
<tr>
<td>EP</td>
<td>14.00 (3.74)</td>
<td>17.60 (2.07)</td>
<td>3.60</td>
<td>3.50</td>
<td>.05</td>
</tr>
</tbody>
</table>

Numbers in parentheses indicate the standard deviation.

The pretest mean score for the STEP group was 11.00 with a posttest mean score of 15.83. There was a gain of 4.83 in the pre to posttest scores. The pretest mean score for the PAT group was 16.86 with a posttest mean score of 21.57. This represents a gain of 4.71 in the pre to posttest mean scores. The pretest mean score for the EP group was 14.00. The posttest mean score was 17.60. This indicates a gain of 3.60 in the pre to posttest mean scores.

A t test was conducted on the concept evaluation instrument data for the STEP, PAT, and EP treatment groups. The data for the EP group was found to be statistically
significant at the .05 level ($t = 3.50$). The concept evaluation instrument data for the STEP and PAT treatment groups was found to be significant at the .01 level ($t = 3.64$, $t = 3.96$).

The implementation hypothesis attempted to test whether there would be gains in knowledge of the parenting concepts as a result of the respective interventions. A statistically significant gain was demonstrated. Participants of the three groups increased their knowledge of parent education concepts.

**Hypothesis 1.** Parents who attended the STEP program will report greater improvement in their perceptions of their children's behavior than parents involved in the PAT or EP programs as measured by an adaptation of Fears' (1976) parent questionnaire at the end of each respective program. An analysis of the posttest parent questionnaire scores is presented in Table 4.
Table 4
Posttest Analysis of PAT and EP Mothers' Parent
Questionnaire Responses in Comparison to STEP
Mothers' Responses

<table>
<thead>
<tr>
<th>Group</th>
<th>Posttest Mean</th>
<th>Standard Deviation</th>
<th>t Value</th>
<th>Significance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>STEP</td>
<td>101.00</td>
<td>11.51</td>
<td>2.58</td>
<td>.05</td>
</tr>
<tr>
<td>EP</td>
<td>86.83</td>
<td>6.97</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PAT</td>
<td>104.43</td>
<td>11.43</td>
<td>.54</td>
<td>N.S.</td>
</tr>
<tr>
<td>STEP</td>
<td>101.00</td>
<td>11.51</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The posttest mean score for the STEP group was 101.00 with a standard deviation of 11.51. The posttest mean score for the EP group was 86.83 with a standard deviation of 6.97. A t test was conducted on the parent questionnaire comparing the STEP and EP groups. The data revealed that the difference between the STEP and EP groups was significant at the .05 level ($t = 2.58$).

The posttest mean score for the PAT group was 104.43 with a standard deviation of 11.43. A t test was conducted on the parent questionnaire comparing the PAT and STEP groups. The data revealed that the difference between the PAT and the STEP groups on the parent questionnaire was not significant.
The results indicate that parents involved in the STEP group reported greater improvement in their perceptions of their children's behavior than parents involved in the EP group at the end of each program. Results also showed that the reports of STEP group parents as compared to reports of PAT parents regarding their perceptions of their children's behavior were not statistically significant at the end of each program.

Hypothesis 1 stated that STEP parents would report more significant improvements in their perceptions of their children's behavior than PAT or EP parents at the end of each respective program. Hypothesis 1, therefore, was partially supported. Parents participating in the STEP program reported greater improvement in their children's behavior than EP program parents but did not report greater improvement than PAT parents.

Pretest analysis of parent questionnaire scores. Analysis of scores on the parent questionnaire was conducted on the pretest measures for each group. This analysis was done to determine whether there were any significant differences in the parents' perceptions of their children's behavior prior to the interventions. The pretest analysis is presented in Table 5.
Table 5
Pretest Analysis of the Three Groups on the Parent Questionnaire

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest Mean</th>
<th>Standard Deviation</th>
<th>t Value</th>
<th>Significance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>STEP</td>
<td>96.00</td>
<td>11.01</td>
<td>1.27</td>
<td>N.S.</td>
</tr>
<tr>
<td>EP</td>
<td>89.50</td>
<td>6.08</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PAT</td>
<td>97.28</td>
<td>9.59</td>
<td>.22</td>
<td>N.S.</td>
</tr>
<tr>
<td>STEP</td>
<td>96.00</td>
<td>11.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PAT</td>
<td>97.28</td>
<td>9.59</td>
<td>1.77</td>
<td>N.S.</td>
</tr>
<tr>
<td>EP</td>
<td>89.50</td>
<td>6.08</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The pretest mean score for the STEP group was 96.00 with a standard deviation of 11.01. The pretest mean score for the EP group was 89.50 with a standard deviation of 6.08. A t test was conducted on the parent questionnaire comparing the STEP and EP groups. The data revealed that the difference between the STEP and EP groups was not significant (t = 1.27).

The pretest mean score for the PAT group was 97.28 with a standard deviation of 9.59. A t test was conducted comparing the PAT and STEP groups. Results indicated that there was no significant difference (t = .22).
An examination of the pretest mean scores for the three groups reveals that there were no significant differences in parents' perceptions of their children's behavior prior to the intervention.

Results of residual analysis of scores on parent questionnaire. An intragroup comparison of scores on the parent questionnaire was conducted. This was to determine if there were any significant differences in parents' perceptions of their children's behavior from pretesting to posttesting. Because of the small sample (n = 18), a regression analysis covarying out pretest scores was done. The means of the residualized scores are presented in Figure 6.
Figure 6. Residual analysis covarying out the pretest scores of parents on the parent questionnaire.
Results of the regression analysis indicate that PAT group mothers' residualized mean score on the parent questionnaire was 4.71 with a standard deviation of 10.46. STEP mothers' residualized mean score was 1.85 with a standard deviation of 6.69. EP mothers' residualized mean score was -6.71 with a standard deviation of 5.28.

There was no significant difference between PAT and STEP mothers' perceptions of their children's behavior from pretesting to posttesting based on the results of a t-test of the residualized scores. There were, however, significant differences between STEP and EP mothers' perceptions of their children's behavior, and PAT and EP mothers' perceptions of their children's behavior from pretesting to posttesting (p ≤ .05).

The significance of these results is also reflected in the actual scores of the parent questionnaire. The actual difference in the mean scores from pretesting to posttesting is presented in Table 6.
Table 6

Differences in the Mean Scores on the Parent Questionnaire

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean Pretest</th>
<th>Mean Posttest</th>
<th>Mean Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>STEP</td>
<td>96.00</td>
<td>101.00</td>
<td>5.00</td>
</tr>
<tr>
<td></td>
<td>(11.01)</td>
<td>(11.51)</td>
<td></td>
</tr>
<tr>
<td>PAT</td>
<td>97.28</td>
<td>104.43</td>
<td>7.15</td>
</tr>
<tr>
<td></td>
<td>(9.59)</td>
<td>(11.43)</td>
<td></td>
</tr>
<tr>
<td>EP</td>
<td>89.50</td>
<td>86.83</td>
<td>-2.73</td>
</tr>
<tr>
<td></td>
<td>(6.08)</td>
<td>(6.97)</td>
<td></td>
</tr>
</tbody>
</table>

These results suggest that STEP and PAT parents' perceptions of their children's behavior were more positive than those of the EP parents at the end of each respective program.

**Hypothesis 2.** Parents who attend the PAT program will report greater improvements in their perceptions of their children's behavior than parents involved in the EP program as measured by an adaptation of Fears' (1976) parent questionnaire at the end of each respective program. A posttest analysis of the parent questionnaire scores is presented in Table 7.
Table 7
Posttest Analysis of PAT and EP Mothers' Parent Questionnaire Responses

<table>
<thead>
<tr>
<th>Group</th>
<th>Posttest Mean</th>
<th>Standard Deviation</th>
<th>t Value</th>
<th>Significance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAT</td>
<td>104.43</td>
<td>11.43</td>
<td>3.40</td>
<td>.01</td>
</tr>
<tr>
<td>EP</td>
<td>86.83</td>
<td>6.97</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The posttest mean score for the PAT group was 104.43 with a standard deviation of 11.43. The posttest mean score for the EP group was 86.83 with a standard deviation of 6.97. A t test was conducted on the parent questionnaire comparing the PAT and EP groups. The data revealed that the difference between the PAT and EP groups was significant at the .01 level (t = 3.40).

Hypothesis 2 attempted to test whether PAT parents' perceptions of their children's behavior was more positive than EP parents' perceptions of their children's behavior at the end of each intervention. A statistically significant gain was demonstrated. Hypothesis 2 therefore was supported.

The following hypotheses are divided into two categories. Hypotheses 3a through 7a relate to the data generated about the parents and hypotheses 3b through 7b
relate to the data regarding children.

**Hypothesis 3a.** Parents attending STEP will interact significantly more effectively with their children at the end of the program as measured by the Response-Class Matrix of parent-child interactions (Mash, Terdal, & Anderson, 1973) in the laboratory setting. Chi square analysis conducted on the pre and posttest counts of negative and positive responses yielded a chi square value of 15.43 which was significant at the .001 level. These results are presented in Table 8.

<table>
<thead>
<tr>
<th></th>
<th>Negative Responses</th>
<th>Positive Responses</th>
<th>Chi Square</th>
<th>Significance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>32</td>
<td>60</td>
<td>15.43</td>
<td>.001</td>
</tr>
<tr>
<td>Post</td>
<td>8</td>
<td>79</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Inspection of the data indicates that the significant results were brought about by a strong decrease in the negative responses and a strong increase in positive responses by mothers in the STEP group. Thus the data suggests that STEP mothers were more positive in their
interactions with their children in the laboratory condition after treatment. Hypothesis 3a, therefore, was supported.

Hypothesis 3b. Children of parents attending STEP will interact significantly more effectively with their parents at the end of the program as measured by the Response-Class Matrix of parent-child interactions in the laboratory setting.

Chi square analysis conducted on the pre and posttest counts of STEP children's negative and positive responses yielded a chi square value of 1.15 which was not statistically significant. These results are presented in Table 9.

Table 9

Chi Square Analysis of the Pre and Post Results of the Response-Class Matrix of STEP Group Children

<table>
<thead>
<tr>
<th></th>
<th>Negative Responses</th>
<th>Positive Responses</th>
<th>Chi Square</th>
<th>Significance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>06</td>
<td>56</td>
<td>1.15</td>
<td>N.S.</td>
</tr>
<tr>
<td>Post</td>
<td>04</td>
<td>93</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Inspection of the data reveals that the counts of STEP children's negative and positive responses were not significantly different at pre and posttest sessions. Hypothesis 3b, therefore, was not supported.

**Hypothesis 4a.** Parents attending PAT will interact significantly more effectively with their children at the end of the program as measured by the Response-Class Matrix of parent-child interactions in the laboratory setting.

Chi square analysis conducted on the pre and posttest counts of PAT mothers' negative and positive responses yielded a chi square value of 1.11 which was not statistically significant. These results are presented in Table 10.

**Table 10**

Chi Square Analysis of the Pre and Post Results of the Response-Class Matrix of PAT Group Mothers

<table>
<thead>
<tr>
<th></th>
<th>Negative Responses</th>
<th>Positive Responses</th>
<th>Chi Square</th>
<th>Significance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>43</td>
<td>195</td>
<td>1.11</td>
<td>N.S.</td>
</tr>
<tr>
<td>Post</td>
<td>34</td>
<td>207</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Inspection of the data reveals that the counts of PAT mothers' negative and positive responses were not significantly different at pre and posttest sessions. Hypothesis 4a, therefore, was not supported.

**Hypothesis 4b.** Children of parents attending PAT will interact significantly more effectively with their parents at the end of the program as measured by the Response-Class Matrix of parent-child interactions in the laboratory setting.

Chi square analysis conducted on the pre and posttest counts of PAT children's negative and positive responses yielded a chi square value of 1.15 which was not statistically significant. These results are presented in Table 11.

**Table 11**

Chi Square Analysis of the Pre and Post Results of the Response-Class Matrix of PAT Group Children

<table>
<thead>
<tr>
<th></th>
<th>Negative Responses</th>
<th>Positive Responses</th>
<th>Chi Square</th>
<th>Significance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>22</td>
<td>206</td>
<td>1.15</td>
<td>N.S.</td>
</tr>
<tr>
<td>Post</td>
<td>29</td>
<td>206</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Inspection of the data reveals that the counts of PAT children's negative and positive responses were not significantly different at pre and posttest sessions. Hypothesis 4b, therefore, was not supported.

Hypothesis 5a. Parents attending EP will interact significantly more effectively with their children at the end of the program as measured by the Response-Class Matrix of parent-child interactions in the laboratory setting.

A chi square analysis conducted on the pre and posttest counts of EP mothers' negative and positive responses yielded a chi square value of .02 which was not statistically significant. These results are presented in Table 12.

Table 12
Chi Square Analysis of the Pre and Post Results of the Response-Class Matrix of EP Group Mothers

<table>
<thead>
<tr>
<th></th>
<th>Negative Responses</th>
<th>Positive Responses</th>
<th>Chi Square</th>
<th>Significance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>31</td>
<td>104</td>
<td>.02</td>
<td>N.S.</td>
</tr>
<tr>
<td>Post</td>
<td>36</td>
<td>131</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Inspection of the data reveals that the counts of EP mothers' negative and positive responses were not
significantly different at pre and posttest sessions. Hypothesis 5a, therefore, was not supported.

**Hypothesis 5b.** Children of parents attending EP will interact significantly more effectively with their parents at the end of the program as measured by the Response-Class Matrix of parent-child interactions in the laboratory setting.

Chi square analysis conducted on the pre and posttest counts of EP children's negative and positive responses yielded a chi square value of .03 which was not statistically significant. These results are presented in Table 13.

Table 13

<table>
<thead>
<tr>
<th></th>
<th>Negative Responses</th>
<th>Positive Responses</th>
<th>Chi Square</th>
<th>Significance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>06</td>
<td>94</td>
<td>.03</td>
<td>N.S.</td>
</tr>
<tr>
<td>Post</td>
<td>05</td>
<td>106</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Inspection of the data reveals that the counts of EP children's negative and positive responses were not significantly different at pre and posttest sessions.
Hypothesis 5b, therefore, was not supported.

Hypothesis 6a. Parents attending STEP will interact significantly more effectively with their children in the laboratory condition in comparison to PAT and EP parents as measured by the Response-Class Matrix of parent-child interactions at the end of each respective program.

A chi square analysis conducted on the posttest counts of STEP and PAT mothers' negative and positive responses yielded a chi square value of 1.39 which was not statistically significant. A chi square analysis conducted on the posttest counts of STEP and EP mothers' negative and positive responses yielded a chi square value of 5.79 which was significant at the .05 level. These results are presented in Table 14.

Table 14

Chi Square Analysis of the Mothers' Posttest Results of the Response-Class Matrix for the Three Groups

<table>
<thead>
<tr>
<th>Group</th>
<th>Negative Responses</th>
<th>Positive Responses</th>
<th>Chi Square</th>
<th>Significance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>STEP</td>
<td>08</td>
<td>79</td>
<td>1.39</td>
<td>N.S.</td>
</tr>
<tr>
<td>PAT</td>
<td>34</td>
<td>207</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STEP</td>
<td>08</td>
<td>79</td>
<td>5.79</td>
<td>.05</td>
</tr>
<tr>
<td>EP</td>
<td>36</td>
<td>131</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Inspection of the data reveals that parents involved in the STEP group and parents involved in the PAT group showed no significant differences in their negative and positive responses in the posttest laboratory condition. The data also indicates that parents involved in the STEP group showed significant differences in their negative and positive responses in the posttest laboratory condition when compared to EP parents ($p < .05$).

It does appear that STEP parents' responses were more positive and less negative than EP parents' responses at the end of each respective program, however STEP parents' responses as compared to PAT parents' responses revealed no significant differences. Hypothesis 6a, therefore, was partially supported.

**Hypothesis 6b.** Children of parents attending STEP will interact significantly more effectively with their parents in the laboratory condition in comparison to children of PAT and EP parents as measured by the Response-Class Matrix of parent-child interactions at the end of each respective program.

A chi square analysis conducted on the posttest counts of STEP and PAT children's negative and positive responses yielded a chi square value of 5.09 which was statistically significant at the .05 level. A chi square analysis conducted on the posttest counts of STEP and EP
children's negative and positive responses yielded a chi square value of .020 which was not statistically significant. The results are presented in Table 15.

Table 15
Chi Square Analysis of the Children's Posttest Results of the Response-Class Matrix for the Three Groups

<table>
<thead>
<tr>
<th>Group</th>
<th>Negative Responses</th>
<th>Positive Responses</th>
<th>Chi Square</th>
<th>Significance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>STEP</td>
<td>04</td>
<td>93</td>
<td>5.09</td>
<td>.05</td>
</tr>
<tr>
<td>PAT</td>
<td>29</td>
<td>206</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STEP</td>
<td>04</td>
<td>93</td>
<td>.02</td>
<td>N.S.</td>
</tr>
<tr>
<td>EP</td>
<td>05</td>
<td>106</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Inspection of the data reveals that children of parents involved in the STEP group showed significant differences in their negative and positive responses in the posttest laboratory condition as compared to children of PAT parents (p<.05). The data also indicates that the children of parents involved in the STEP group showed no significant differences in their negative and positive responses in the posttest laboratory condition when compared to EP parents.

It does appear that STEP children's responses were
more positive and less negative than PAT children's responses at the end of each respective program. STEP children's responses, however, did not significantly differ from EP children's responses. Hypothesis 6b, therefore, was partially supported.

Hypothesis 7a. Parents attending PAT will interact significantly more effectively with their children in the laboratory condition in comparison to EP parents as measured by the Response-Class Matrix of parent-child interactions at the end of each respective program.

A chi square analysis conducted on the posttest counts of PAT and EP mothers' negative and positive responses yielded a chi square value of 3.66 which was not statistically significant. These results are presented in Table 16.

Table 16

Chi Square Analysis of the Mothers' Posttest Results of the Response-Class Matrix for Two of the Groups

<table>
<thead>
<tr>
<th>Group</th>
<th>Negative Responses</th>
<th>Positive Responses</th>
<th>Chi Square</th>
<th>Significance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAT</td>
<td>34</td>
<td>207</td>
<td>3.66</td>
<td>N.S.</td>
</tr>
<tr>
<td>EP</td>
<td>36</td>
<td>131</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Inspection of the data reveals that parents involved in the PAT group and parents involved in the EP group showed no significant differences in their negative and positive responses in the posttest laboratory condition. Hypothesis 7a, therefore, was not supported.

**Hypothesis 7b.** Children of parents attending PAT will interact significantly more effectively with their parents in the laboratory condition in comparison to children of EP parents as measured by the Response-Class Matrix of parent-child interactions.

A chi square analysis conducted on the posttest counts of PAT and EP children's negative and positive responses yielded a chi square value of 5.21 which was statistically significant at the .05 level. This analysis, however, reflects exactly the opposite results predicted in hypothesis 7b. These results are presented in Table 17.
Table 17
Chi Square Analysis of the Children's Posttest Results of the Response-Class Matrix for Two of the Groups

<table>
<thead>
<tr>
<th>Group</th>
<th>Negative Responses</th>
<th>Positive Responses</th>
<th>Chi Square</th>
<th>Significance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP</td>
<td>05</td>
<td>106</td>
<td>5.21</td>
<td>.05</td>
</tr>
<tr>
<td>PAT</td>
<td>29</td>
<td>206</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Inspection of the data reveals that children of parents involved in the EP group showed significant differences in their negative and positive responses in the posttest laboratory condition as compared to children of PAT parents. Hypothesis 7b, therefore, was not supported.

Summary

In this investigation there were many positive results. Table 18 summarizes the significant results of this research project. As indicated in the table, parents involved in all three programs showed significant gains in their knowledge regarding parent education. STEP and PAT parents perceived their children's behavior as being more positive at the end of their interventions than did parents involved in the EP program. Finally, there were more positive interactions between STEP parents and their
children than the parents and children involved in the other two programs.

Table 18
Summary of the Significant Results on the Three Measures Showing Gains from Pre to Posttesting and Posttest Intragroup Comparisons (>)

<table>
<thead>
<tr>
<th>Measures</th>
<th>STEP</th>
<th>PAT</th>
<th>EP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concept Evaluation Instrument</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Acquisition of concepts and skills)</td>
<td>Gain (p&lt;.01)</td>
<td>Gain (p&lt;.01)</td>
<td>Gain (p&lt;.05)</td>
</tr>
<tr>
<td>Parent Questionnaire</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Parents' Perceptions of children's behavior)</td>
<td>STEP&gt;EP (p&lt;.05)</td>
<td>PAT&gt;EP (p&lt;.01)</td>
<td>----</td>
</tr>
<tr>
<td>Response-Class Matrix</td>
<td>Parents Gain, STEP&gt;EP (p&lt;.001) (p&lt;.05)</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>(Behavioral Interactions)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children</td>
<td>STEP&gt;PAT (p&lt;.05)</td>
<td>----</td>
<td>EP&gt;PAT (p&lt;.05)</td>
</tr>
</tbody>
</table>

This chapter presented the results of the analysis of data collected during this study. The data was presented as it related to each of the hypotheses and a summary of the significant results was given. The final chapter will discuss the implications and limitations of the findings.
and make recommendations for future research.
CHAPTER V
DISCUSSION AND CONCLUSIONS

The previous chapters presented information regarding the background, purpose, methodology, and results of the research project. This chapter will present a discussion of the variables, the implications of the results, the limitations of the findings, and suggestions for future research.

Discussion of Results

This research was developed to provide further insight into the effectiveness of three different parent education programs. The hypotheses were based on the following interdependent conditions: (a) that the programs and instructors would be effective in teaching the parents the concepts and skills, (b) that parents would assimilate the appropriate concepts and skills and apply them in their everyday interactions with their children, (c) that as a result of parents' changes in behavior, there would be a positive change in the children's behavior, (d) that parents would notice and report an increase in positive behavior on the part of their children, and (e) that in a laboratory setting, parents' and children's interactions would be more positive as a result of the interventions.
Parents' acquisition of concepts and skills. A concept evaluation instrument for each program measured the growth in the concepts and skills presented. Results of the data indicated that parents in the behavioral PAT group and the Adlerian STEP group assimilated the concepts presented. The instrument also indicated that parents were able to apply the concepts to vignettes depicting real-life parent-child interactions. Parents showed statistically significant gains in knowledge as predicted in the implementation hypothesis ($p \leq .01$).

Parents involved in the EP group were also tested with a concept evaluation instrument. This instrument differed from the STEP and PAT concept evaluation instruments in that it was more global in its scope. This measure was designed to assess the eclectic nature of the EP program. EP parents showed significant gains in knowledge as predicted in the implementation hypothesis ($p \leq .05$).

Evidence that parents understood the concepts and skills and were able to apply them to examples of real-life situations had an important bearing on the results of this study. Conclusions regarding lack of significant data in parents' perceptions of their children's behavior or in parent-child interactions cannot be attributed to the parents' lack of understanding of the concepts.
presented in each program.

Parents' perceptions of their children's behavior. A parent questionnaire was developed for hypotheses 1 and 2 to be used by all parents in the three groups. This questionnaire was designed to measure whether parents would report positive changes in their children's behavior as a result of the interventions.

The treatment groups did not differ significantly in their perceptions of their children's behavior prior to the respective interventions. Posttesting revealed, however, that there were significant differences in parents' perceptions of their children's behavior in two of the groups. The STEP and PAT parents reported a positive increase in their perceptions of their children's behavior in comparison to the EP parents.

Intragroup comparisons for each of the three groups revealed that STEP and PAT parents' perceptions of their children's behavior had significantly improved from pre to posttesting. EP parents' perceptions, however, were less positive.

As a result of the parents' involvement in the STEP and PAT interventions, parents found their children's behavior to be more acceptable in the posttest condition, both in comparison to pretest measures and in comparison to EP parents' reports. These findings regarding
parents' perceptions of their children's behavior support similar results reported in other STEP and PAT studies (Bauer, 1978; Dubey & Kaufman, 1978; McKay, 1976; McKay & Hillman, 1979; Villegas, 1978).

Behavioral interactions in the laboratory condition. The Response-Class Matrix (Mash, Terdal, & Anderson, 1973) was used to measure parent-child interactions in the laboratory environment.

Parents. STEP parents showed significant increases in their positive interactions with their children in the laboratory condition from pre to posttesting (p < .001). STEP parents also demonstrated significant gains in their positive interactions with their children when compared to EP parents in the posttest condition (p < .05). The analysis also revealed that PAT and EP parents did not demonstrate significant increases in their positive interactions with their children in the laboratory condition.

These findings regarding STEP parents and preschool children appear to support the findings of Moore and Dean-Zubritsky (1979) who carried out a similar study of Adlerian Parent Study groups, videotaping the interactions of mothers and children in a laboratory environment. In comparing experimental group mothers to control group mothers, the researchers found that experimental group parents were more involved with their children.
conversationally, physically, and in play activities than were control group parents. Experimental group parents also made a greater number of encouraging remarks to their children.

Children. Children of STEP parents also showed significant gains in their positive interactions with their parents when compared to children of PAT parents in the posttest condition (p ≤ .05). An additional result of the analysis was that EP children showed significant gains in their positive interactions with their parents when compared to the children of PAT parents in the posttest condition (p ≤ .05).

The results of the analysis seem to indicate that the STEP program yielded more positive results than either the PAT or EP programs. The following section will present a discussion expanding on the implications of these findings.

Implications

The major finding of this research study is that there were more positive interactions between STEP parents and their children than the parents and children involved in the PAT or the EP treatment groups at the end of the respective interventions. The following section will discuss the impact of treatment effects of the
(a) effectiveness of instruction, (b) parental reports of children's behavior, and (c) changes in behavioral interactions. The implications of these results will be discussed.

**Effectiveness of instruction.** The analysis of the concept evaluation instruments and the significance of the results suggests that parents in each of the three treatment groups learned more about the concepts presented in their respective programs. The results indicate, however, that the STEP and PAT treatment groups realized a more significant gain from pre to posttesting than did the parents involved in the EP group.

The STEP and PAT groups are oriented towards teaching parents specific skills and concepts. Weekly homework activities are designed to encourage parents to practice these skills in their homes. The weekly sessions begin with a discussion of the homework activity. This not only reinforces each skill presented, but also adds structure and continuity to each meeting. In comparison, the EP treatment focuses on increasing participants' awareness of broader parenting issues. Due to the more general nature of the EP program, discussion topics may be unrelated from session to session and few homework activities are assigned.
Another factor that should be considered when viewing the results of this study, is each program's ability to cater to the different learning styles of its participants. STEP utilizes a multisensory approach including audio tapes, large posters, role-playing activities and a parent handbook. These various approaches may help parents who need to compensate for poor reading ability. The PAT text uses a programmed instruction format. Definitions of new terms introduced in the text are available on each page. This gives parents a more immediate understanding of new ideas and concepts presented. EP has a parent handbook which is set up as a guide to the weekly discussions. EP parents are also exposed to weekly discussions, role-playing activities and brainstorming exercises. The EP program's approach may have had an impact upon how much information the parents learned. Thus, the less significant results may have been due to the methods of instruction used in the EP parents' group.

Finally, the lower significance of the EP parents' posttest scores may have been as a result of the more general nature of the concept evaluation instrument developed for this intervention. EP parents' pretest scores were higher than those of the STEP and PAT parents. These results therefore may be due to the less directive
nature of the EP program, to the more general nature of
the instrument devised to measure the effects of the
intervention, or to the methods of instruction used in
the group.

Parental reports of children's behavior. STEP and
PAT parents reported a positive increase in their percep-
tions of their children's behavior in comparison to EP
parents at the end of the respective interventions. The
three groups did not differ significantly at the time of
pretesting. Intragroup comparisons also indicated that
STEP and PAT parents' perceptions of their children's be-
behavior had improved significantly from pre to posttesting.

It can be concluded that STEP and PAT parents per-
ceived that their children's behavior had become more
positive as a result of the interventions. EP parents,
however, reported less positive results. These findings
suggest that as a result of involvement in either STEP
or PAT parent education groups, low income parents of pre-
school children are likely to believe that their chil-
dren's behavior improved at the end of treatment. This
may not be true for a similar population of parents par-
ticipating in an EP program.

These results may have occurred due to the differences
in the scope of the STEP, PAT, and EP interventions. STEP
and PAT have already been presented as more specific
interventions with a higher degree of directiveness than EP. It is possible, however, that the EP parents' awareness of their children's behavior had been heightened as a result of their training. Consequently, the EP parent questionnaire data may simply reflect their increased sensitivity to their children's misbehavior.

Furthermore, EP parents may also have been disappointed by the effects of their training. Initially parents were informed that the parent education courses being offered may help them develop better discipline with their children. Although EP parents discussed various disciplinary theories, parents may have hoped for more directive training and more obvious results. The findings of the parent questionnaire, therefore, may reflect the frustration of parents who felt shortchanged in their disciplinary training.

Changes in behavioral interactions. Parents and children involved in the STEP treatment condition displayed more positive interactions in the posttest laboratory condition when: (a) the responses of STEP parents were compared from pretest to posttest ($p<.001$), (b) the posttest responses of STEP parents were compared to the posttest responses of EP parents ($p<.05$), and (c) the responses of STEP children were compared to the responses of PAT children in the posttest laboratory condition ($p<.05$). The
only other significant finding was that EP children reacted significantly more positively with their parents in the posttest laboratory condition than children of PAT parents (p<.05).

These findings, in addition to the previous findings, suggest that low income parents involved in the STEP program may interact more positively with their preschool children than parents involved in the PAT or EP programs. These results may be due to the focus of the STEP parent education program. STEP parents concentrated on improving their communication skills and learning new ways to encourage their children. The STEP parents practiced positive problem-solving techniques to use with their children. The immediate focus of the STEP program was not to alter the children's behavior, but to alter the parents' behavior.

In comparison, the PAT program introduced parents to behavioral techniques such as time-out and ignoring very early in the sessions. According to informal parent reports these techniques were very effective in altering their children's behavior. It is possible, however, that the children of PAT parents were still challenging the new behavioral techniques employed by their parents at the time of the posttest laboratory condition. If this was the case, the lack of significant gains in positive
responses at the end of treatment would be understandable.

PAT parents were taught about the effective use of praise later in the intervention than STEP parents were taught about the use of encouragement. Since the variable tested was positive interactions, this may have had a powerful effect on the outcome of data regarding parent-child interactions. In fact these findings may have been significantly different if follow-up testing was completed at a later date.

Another finding was that EP children reacted significantly more positively with their parents in the posttest condition than PAT children with their parents. EP parents were not trained to interfere with their children's behavior as the PAT parents had been trained. Once more these results may simply reflect the PAT children's reaction to their parents' new behavioral techniques, and the PAT parents' responses to their children's actions aimed at maintaining the status-quo.

**Laboratory environment.** Parents and children were videotaped in a laboratory setting. This provided a convenient location that was more easily controlled than the natural environment. Studies have shown, however, that "behavior in such artificial settings may not be representative of behavior in the subjects' natural habitat" (Johnson, Christensen, & Bellamy, 1976, p. 213). This
effect may have been offset by the fact that the children in the study were unaware that they were being videotaped. While parents may have felt anxious about being videotaped, and may possibly have altered some of their behavior for other reasons as well, the children were most likely behaving as they normally do. Also, it should be stressed that only positive and negative interactions were measured in the laboratory environment. Results may have been quite different if the focus of the study had been compliance of children to parental requests, or to other behavioral interactions.

Limitations

This section will present a discussion regarding the limitations of the findings.

Limitations of the findings.

Socio-economic class. This study was carried out with a low socio-economic sample. The results of this study, therefore, are not generalizable to other populations such as lower, middle, and upper class parents and children.

Parenting programs. This study looked at three specific parent education programs. Therefore, its results do not apply to other parent education programs or similar interventions.
Duration of treatment effects. Results of this study do not offer evidence of lasting treatment effects due to the lack of follow-up or long term measurements. Consequently, the findings are limited to statements regarding short term treatment effects.

Ages of children. This study was carried out with a very specific population of children. The children were Head Start youngsters whose ages were from three to five years old. Conclusions regarding the results of this study are limited to this population of children and may not apply to older children, foster children, and other samples.

Suggestions for Future Research

This research project has raised many possibilities for future studies. The following section offers recommendations that may be applicable to both practitioners and researchers interested in the field of parent education.

Suggestions for practitioners. The following recommendations are offered primarily for psychologists, social workers, and group leaders who may be running parent groups. Researchers, however, could collaborate with practitioners and evaluate the impact of the following components.
Attendance. Parents should be encouraged to attend as many meetings as possible. Group leaders should consider techniques for increasing attendance such as returning a portion of the fee to parents who meet a very high standard of attendance. Problem issues that can be anticipated such as the best time to schedule meetings, transportation, and babysitting should be discussed at an introductory meeting. Solutions to these problems should be arrived at prior to the first formal meeting in order to decrease their impact on attendance.

Instruction. A multisensory approach is recommended for all programs. Role-playing activities, tape recordings, posters, filmstrips, and videotapes should enhance the presentation of any parent education program. This approach would also prove to be exceptionally helpful with parents who are non-readers or who have limited reading abilities. Further recommendations for helping parents with limited reading abilities include tape recording texts and rewriting parent manuals at a lower reading level. The impact of these adjustments on parents' abilities to learn the information presented could be the focus of interesting research projects.

Suggestions for researchers. The following recommendations are included primarily for researchers. Practitioners, however, may be interested in developing less
formal evaluation methods in an attempt to continually improve upon their parent education programs.

Interventions. Researchers could restrict the number of treatment groups in parent education studies. Studies concentrating on the impact of one parent education program in comparison to a waiting list control group could offer important feedback concerning the effectiveness of training. Researchers could also concentrate on the long term impact of parent education training. The data derived from investigating parent-child interactions in a laboratory environment could be compared to investigations of parent-child interactions at home, in school, on shopping trips, and in other real-life situations. This may shed more light on the generalizability of data arrived at in the laboratory environment.

Setting. An interesting study could concentrate on the effects of teaching parents in their homes in comparison to teaching them in a "school" environment. It might be interesting to note how this might effect attendance and drop-out rates as well as other variables involved.

Measures. Instruments could be developed that are more sensitive to the treatment effects being measured. Parent report data could be compared to the reports of
children, close relatives, or teachers in an attempt to cancel out the "halo" effect of parent report instruments and to find more reliable sources of information. Studies could focus on the development of child-report measures for preschool children who are non-readers such as projective instruments and drawings. Perhaps measures designed for older siblings not involved in the study would yield reliable observational data. Siblings could be paid and trained to observe their parents' interactions with their younger brother or sister and fill out a daily report card of their activities. If their reports proved to be reliable, it could prove to have a strong impact on parent education research.

Future research could also concentrate on the effects of videotaping upon the behavior of families. Studies could be developed that contrasted videotape data with data from live observations. This may yield important information regarding the reliability of results gathered from videotape observations. Researchers may also want to study the effects of having parents and children become very familiar with the videotaping equipment and with being videotaped prior to beginning the interventions. The focus of the research could be on how subjects' familiarity with the videotape equipment effects the reliability of the videotaped feedback. Another area
worth investigating may be the effect of the use of videotaping and other monitoring devices in the natural environment.

These suggestions for future research are applicable to different parent populations such as single parents, teenage parents, adoptive and foster parents, parents of special needs children, abusive parents, and parents from varied social, economic, and cultural backgrounds. Research studies involving any of these parent populations and caretakers would contribute to a greater understanding of the roles and effectiveness of different parenting techniques in our society. These programs may also have a long range impact upon future generations of children and parents in our society and research regarding their strengths and weaknesses should be encouraged.
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Reference Note

APPENDIX
Concept Evaluation Instrument

<table>
<thead>
<tr>
<th>Name</th>
<th>Date</th>
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Systematic Training for Effective Parenting

Please CIRCLE the appropriate answer.

A = Agree
D = Disagree
? = don't know

1. Children always have a goal in mind when they misbehave.  
2. Ignoring misbehavior is often more effective than demanding that it stop.  
3. Praise is always an effective reward for a child.  
4. Praise and encouragement are the same thing.  
5. Sometimes if a child is really sorry for something he did that you warned him about, you're better off giving him a stern lecture and not doing what you told him you would.  
6. Billy is in kindergarten and has been having difficulty learning how to write his numbers. Today he proudly brought home a paper with a sticker on it that showed much improvement. His mother said, "This is much better, Billy, but I can see you are having trouble with your 5's and 2's. Let's work on them more and tomorrow we'll show your teacher what a great job you can do."  
   a. Billy's mother is really encouraging him to do better.  
   b. Helping Billy in this way is a good thing to do.  
   c. Billy's mother should reward him with some cake and ice cream.  
   d. Billy's mother should say, "Billy you really look proud of that paper."  
7. Natural and logical consequences are the same thing as rewards and punishments.  
8. It never hurts to let a child know just how angry you are when he or she misbehaves.  
9. When Susan got every problem correct on her paper her teacher said, "Susan what a good girl you are" Susan smiled. This is a good example of encouragement.  

Figure 7. An example of the concept evaluation instrument used for the STEP group.
10. Children should be allowed to make decisions on their own, and to experience the consequences of their decisions.

11. Bill and Joe are brothers. They are constantly fighting with each other about something. Bill is five years old and Joe is four. Today, Bill punched Joe, and both boys went screaming to their mother blaming each other for the fight. Mother should:
   a. Punish both boys for fighting.  
   b. Punish Bill for punching his brother.  
   c. Sit the boys down and try to figure out what happened.  
   d. Let the boys work it out on their own.

12. Praise can be as unhelpful as criticism.

13. Parents should let their children know how they feel about things.

14. Parents should let their child choose what is best for them to do; after helping them explore the alternatives of their decisions.

15. Children should never be spanked.

16. In order to have a family meeting, every member must be present.

17. Parents should take full responsibility for deciding what rules should be followed in their home.

18. Parents should set some special time aside each week for "special time" with each child.

19. A good rule of thumb for parents to follow when raising their children is: "You do what I want you to do, before you get to do what you want to do".

Figure 7 cont.
Concept Evaluation Instrument

Parents are Teachers
Please CIRCLE the appropriate response.

A = Agree
D = Disagree
? = don't know

1. Mary's four year old daughter does not like cleaning her bedroom. May tells her, "I'll read you a story right now, if you promise to clean your room as soon as we're finished." A D ?

2. Ignoring misbehavior will sometimes be more effective than demanding it stop. A D ?

3. Saying to a child, "You're a good boy", is an excellent example of praising a child. A D ?

4. A good example of a useful disciplinary technique at bedtime is to tell your child, "Once your favorite show is over, I expect you to put your pajamas on." A D ?

5. It's a good idea not to warn your child before you punish him. A D ?

6. Butch, Ann's three year old son, always seems to need more attention when Ann's friend comes to visit. Regardless of how often Ann scolds him, Butch continues to interrupt their conversation. Ann's friend offers the following advice.
   a. "Butch is so young, there's nothing you can do." A D ?
   b. "If you continue to scold him, eventually he'll stop." A D ?
   c. "Why don't you send him to his room for five minutes." A D ?
   d. "It's nothing going to bed without supper won't change." A D ?
   e. "When my son Barry was growing up he did that all the time and I eventually took him to a psychologist." A D ?
   f. "Maybe if you ignore his misbehavior, and praise him when he's playing quietly, he won't misbehave as much." A D ?

Figure 8. An example of the concept evaluation instrument used for the PAT group.
7. If you reward a child for behaving, you're bribing him!

8. People learn how to behave from each other. Parents teach kids, kids teach parents

9. A child should never be spanked.

10. Praise is always an effective reward for a child.

11. A good rule of thumb for parents to follow when raising their children is: You do what I want you to do, before you get to do what you want to do.

12. In order for punishment to be effective it should:
   a. reduce the need for punishment later.
   b. let the child know how angry you are.
   c. be given immediately.
   d. Take away something the child enjoys without letting him know how he can earn it back.

13. Sometimes if a child is really sorry for something he did that you had warned him he would be punished for, you're better off giving him a stern warning and not punishing him.

14. Generally punishment should be avoided.

15. Children who are punished sometimes learn to avoid their parents.

16. Children who are punished sometimes punish their parents.

17. A good way to teach a child not to hit a smaller child is to slap him if he does.

Figure 8 cont.
Concept Evaluation Instrument

Exploring Parenting

Please CIRCLE the appropriate response.

A = Agree
D = Disagree
? = don't know

1. How you say something to a child is often as important as what you say.  
2. Parents can expect a young child to be sympathetic to the parent's feelings.  
3. By age 3 a child should be able to use all table manners.  
4. There is a difference between a special needs child and a handicapped child.  
5. Playing is important to people of all ages.  
6. Playing is something that kids do for fun and has no bearing on the ability to develop concentration.  
7. Adults can get close to children and understand them more by watching them create an art project and/or looking at a finished art project.  
8. Art is a form of communication.  
10. When a child is misbehaving, he may be trying to deal with strong feelings within himself.  
11. The quicker the parents respond to a child's feelings, the more apt he is to be able to act in an acceptable manner.  
12. If a child appears to be happy-go-lucky, he more than likely isn't afraid of many things.  
13. When a young boy has been frightened over a nightmare the best way to deal with his fears is to tell him he is a big boy and there is nothing to be frightened of and then leave him by himself.

Figure 9. An example of the concept evaluation instrument used for the EP group.
14. Teaching a child how to express his feelings in acceptable ways is one of the most important jobs of a parent.

15. In order for a child to become a mature adult he must be raised by a father and a mother.

16. Ignoring misbehavior is often more effective than demanding that it stop.

17. Praise is always an effective reward for a child.

18. Children should be allowed to make decisions on their own and to experience the consequences of their decisions.

19. Parents should let their children know how they feel about things.

20. Children should never be spanked.

21. Parents should take full responsibility for deciding what rules should be followed in their home.

22. Parents should set some special time aside each week for "special time" with each child.

Figure 9 cont.
PARENT QUESTIONNAIRE

PLEASE READ EACH STATEMENT AND CIRCLE THE NUMBER THAT BEST DESCRIBES WHAT YOU BELIEVE ABOUT THE STATEMENT

R - Real
I - Ideal

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<tr>
<th>ALMOST</th>
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<th>NEVER</th>
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<tbody>
<tr>
<td>ALWAYS</td>
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</table>

1. My child comes for meals when s/he is called.  
2. My child is such a finicky eater, I have to make him/her eat.  
3. My child goes to bed the first time s/he is asked.  
4. When we have company, my child shows off and is difficult to control.  
5. My child makes friends easily on his own.  
6. I find myself in the middle of my kids' arguments.  
7. Choosing TV programs is a constant problem at home.  
8. Thumb sucking, nail biting and/or bedwetting is a problem of my child's that I am concerned about.  
9. My child cries or whines when things don't go his way.  
10. My child "talks back" to me.  
11. My child is sassy to me and my friends.  

Figure 10. A copy of the parent questionnaire used for all three groups.
12. My child is very sensitive; I have to be careful not to upset him/her.  
13. My child seems to do only what s/he wants to do.  
14. My child lies to me about things he's done.  
15. When angry, my child might say something to me like "I hate you."  
16. My child is defiant.  
17. My child gets into fights with other children.  
18. My child has temper tantrums.  
19. I have to repeat instructions over and over again before my child will follow them.  
20. My child will help me around the house if I ask.  
21. My child is "clingy."  
22. I have to coax, nag or remind my child to do things.  
23. My child puts his/her own toys away.  
24. I have to dress my child before he goes to "school" in the morning.  
25. Bedtime is a struggle.

Figure 10 cont.
<table>
<thead>
<tr>
<th></th>
<th>ALMOST ALWAYS</th>
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<td>26. My child gets upset when s/he makes mistakes.</td>
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<td>27. Spanking is the form of discipline most often used in our home.</td>
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<td>28. My child doesn't listen to me.</td>
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<td>29. I worry about whether or not I'm a good parent.</td>
<td>1</td>
<td>2</td>
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<tr>
<td>30. My child is self-confident.</td>
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<tr>
<td>31. I find that when my child misbehaves, I yell at her.</td>
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<tr>
<td>32. My child is &quot;bossy.&quot;</td>
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<td>33. My child behaves in such a way that we argue a lot with each other.</td>
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<td>34. My child is always crying.</td>
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Figure 10 cont.
(M)OTHER'S CONSEQUENT BEHAVIOR RECORD

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Recorder ____________________________

Figure 11. A copy of the mother consequent coding sheet.
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Recorder ____________________________

Figure 12. A copy of the child consequent coding sheet.