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ATTITUDES AND TEMPERAMENT TRAITS AMONG
MOTHERS OF CHILDREN WITH
LEARNING DISABILITIES

DISSERTATION

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By

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The problem of this study was to determine if differences in attitudes and temperament traits would create a separation between a group of mothers of children who have learning disabilities and a group of mothers of children who do not have learning disabilities. The purpose of the investigation was to determine if differences between the two groups would warrant programmatic changes in parent education and development of new counseling approaches for mothers of children with learning disabilities within the schools.

A total of seventy subjects participated in the study, thirty-five non-randomly selected mothers of learning disabled children and thirty-five randomly selected mothers of non-learning disabled children. All subjects were volunteers who agreed to complete the two testing instruments and a sheet consisting of demographic data.

Test data consisted of participants scores from the Hereford Parent-Attitude Survey and scores from nine of the scales of the Guilford-Zimmerman Temperament Survey. Scores

from these two instruments, as well as demographic data regarding age of mother, sex and age of the child, and number of years the child had been in school were utilized in determining the separation of groups.

Four discriminant analysis functions were employed to determine the significance of the separation of groups. Wilk's lambda test of significance was used to establish the discriminating power that existed in the variables being explored. Standardized weighting coefficients served to identify the relative contribution the significant variables made to the differentiation of groups. Percentages of correctly preclassified group members provided information regarding the accuracy of the separation of the groups.

Findings indicated that neither the analysis of maternal attitudes nor the analysis of temperament traits contributed to a distinct separation of the two groups. The scores for all participants were within normal limits, with the mean scores of mothers of children with learning disabilities being slightly higher on all scales of both instruments. The two groups were found to separate on variables of age of mother and sex and age of the child. Groups also separated when all variables were viewed simultaneously; three temperament trait variables (Restraint, Objectivity, Emotional Stability) in combination with sex and age of the child created this distinct separation. Due to the procedures utilized in sample selection, significant separations

based on demographic data may not present an accurate picture of group differences. Therefore, it was concluded that programmatic changes in parent education and new counseling approaches for mothers of children with learning disabilities was not warranted.

On the basis of these findings, school counselors interested in assisting mothers of children with learning disabilities might consider utilizing any of the present parent education programs or counseling approaches now available. Providing opportunities for mothers to become involved within the school setting might help both mother and child in adjusting to the child's learning environment. Further research is recommended to explore how relationships between positive maternal attitudes and temperament traits are related to learning disabilities exhibited by the child.

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CHAPTER I

INTRODUCTION

Children diagnosed as learning disabled have been described by various sources as composing from one to thirty percent of the school population (17, 18, 31). If this population of children is to be better understood by school personnel, it would appear that more specific information is needed concerning the child's total environmental influences. Some experts (17, 18) recognize central nervous system dysfunction as an underlying cause of learning disabilities while others (4, 15, 23, 29) suggest that defective parent-child, and more specifically, mother-child relations are a major factor contributing to academic difficulties experienced by children. Compiling information from both home and school environments could be the most advantageous approach to maximizing educational opportunities for children diagnosed as learning disabled. The present diagnostic process within the schools provides for extensive educational and intellectual assessment; but, considering that a child's behavior may be attributable to attitudes exhibited by a child's mother (2, 4, 10, 12, 13, 23, 29, 30), it seems that knowledge of the relationship between mother and child would aid in facilitation of both learning and development.

Several authors (1, 4, 10) have identified specific maternal attitudes that are considered to be contributing factors in the learning disorders and behavior problems frequently exhibited by a child within the school setting. One reason mothers appear to have more influence on children than do fathers may be the fact that generally, in our culture, mothers assume the role of guardian and principal manager of the children within the family. Mothers, thus, tend to thereby accept full responsibility for the children's development, learning, and behavior (5, 7, 30). Since mothers do tend to accept the responsibility and blame for their children's disabilities, the attitudes expressed by mothers seem to have greater influence on children than do attitudes of other family members.

Specific attitudes and temperament traits have been identified as being exhibited by mothers of children with learning deficits (9, 10, 19, 22, 23, 27, 30). The research, however, fails to determine if these attitudes and temperament traits generate a distinct separation of mothers of children who have learning disabilities from mothers of children who do not have learning disabilities. Such a discrimination of groups of mothers would indicate a need for a more comprehensive school counseling program which focuses on the mother-child relationship as a cohesive unit.

Statement of the Problem

The problem of this study was to determine if differences existed between a group of mothers of children who have learning disabilities and a group of mothers of children who do not have learning disabilities.

Purposes of the Study

The purposes of this study were (1) to determine if differences between a group of mothers of children who have learning disabilities and a group of mothers of children who do not have learning disabilities warranted development of programmatic changes in parent education and new counseling approaches for mothers of children with learning disabilities within the schools and (2) to provide rationale and suggestions for school counselor intervention if the two groups were different enough to substantiate such changes being made.

Definition of Terms

For the purposes of this study the following definitions were formulated.

Learning disabled children are those who have been determined by a multidisciplinary team to be achieving below their age and ability level and whose discrepancy between ability and achievement is not the result of: a visual, hearing, or orthopedic handicap; mental retardation; emotional disturbance; or environmental, cultural, or

economic disadvantages (26). These children may be included in private school placements for the learning disabled or in public school special education placements receiving a minimum of one-half hour of special education instruction a day.

Temperament traits are those derived from nine traits of the Guilford-Zimmerman Temperament Survey (General Activity, Restraint, Ascendance, Social Interest, Emotional Stability, Objectivity, Friendliness, Thoughtfulness, Personal Relations).

Parental attitudes are those determined by the Hereford Parent-Attitude Survey (confidence in parental role, causation of child's behavior, acceptance of child's behavior and feelings, mutual understanding, and mutual trust).

Hypotheses

The following hypotheses were formulated.

1. There will be significant differences in scores obtained on the Hereford Parent-Attitude Survey which differentiate the group of mothers of children who have learning disabilities from the group of mothers of children who do not have learning disabilities.

2. There will be significant differences in scores on the scales of the Guilford-Zimmerman Temperament Survey which differentiate the group of mothers of children who

have learning disabilities from the group of mothers of children who do not have learning disabilities.

3. There will be significant differences on the variables of age of mothers, age of child, sex of child, and number of years child has attended school which differentiate the group of mothers of children who have learning disabilities from the group of mothers of children who do not have learning disabilities.

4. There will be significant differences differentiating the group of mothers of children who have learning disabilities from the group of mothers of children who do not have learning disabilities when attitudes, temperament traits, and variables of age of mother, age of child, sex of child, and number of years child has attended school are examined simultaneously.

Background and Significance of the Study

Maternal attitudes toward children with learning disabilities can be a substantial problem when one is attempting to help these children overcome some of their deficits (1, 2, 3). Several studies (16, 23, 24, 30) indicate a relationship between poor school performance and maternal attitudes. These findings suggest that a child who perceives little or no encouragement and support from his mother experiences difficulty in functioning adequately within the academic realm. Knowledge of maternal attitudes

is, therefore, important if the most advantageous assistance within the school is to be provided for the child.

Various maternal attitudes have been identified as major contributing factors in children's learning disabilities. Pearson (20) reported that learning problems were by-products of poor parent-child interactions; the less positive the interactions, the more likely the child would be to experience learning difficulties. Doleys (10) found that permissive and inconsistent maternal behaviors, as they related to discipline, complicated the child's adjustment to the classroom situation and the learning process. Maternal indulgence has been reported to be associated with learning problems reflected through lack of behavioral control. The learning disabled child, when placed in the typical classroom environment, experiences difficulty with the lack of immediate gratification and exhibits an inability to formulate long-range goals (30).

Research indicates that when a child perceives the home environment as unaccepting, hostile, or rejecting, the results are frequently most recognizable in the child's inability to perform academically (3, 8, 11, 14, 19, 21). As children fail to meet the expectations set for them by their parents, particularly their mothers, both parents and children become more discouraged and, thus, less able to break through the barriers that interfere with the relationship. The fact that improved maternal attitudes can result

in improved performances by the child adds to the importance these attitudes have on the child both within the home environment and outside the boundaries of the home. Perhaps a more direct approach to helping the child achieve a sense of self-mastery would be possible through helping mothers alter attitudes and approaches to children.

Improving maternal attitudes through counseling has been investigated by several researchers. Bryant (8) found that children's academic performance increased when mothers were able to accept the children and the children's deficits. Other studies have found that children's academic performance and behavior improved as mothers expressed more positive and accepting attitudes toward their children (11, 14, 19, 21). When a child experiences an accepting, supportive, and nurturing home environment, the probability of academic success tends to increase (14).

One possible method for facilitating a child's academic improvement would be through altering the environment in which the child lives (28). Such an alteration has been shown to occur when either the mother, or parents are involved in counseling. Adamson (3) found that counseling aided the development of more positive attitudes concerning the disabled child. The most positive attitudes resulted in increased acceptance for the child and, thus, an improvement in the child's classroom production and behavior. Children who improved in both academics and behavioral areas

tended to have parents who communicated their concerns and openly showed affection toward the children. A secure, rewarding environment, without stress or threats, was considered necessary in order for children to change their behavior so they could function successfully within the academic setting (11, 14).

A child's need for help means, in most instances, that a mother also needs help (6). Individual counseling for children tends to isolate the child and thereby reduces the possibility of improving the mother-child interaction due to the absence of the mother (25). Mothers often need help in developing healthy relationships with their child. Such relationships will serve to promote freedom and growth for both mother and child (29). Therefore, the major advantage of placing mother and child together in counseling is the provision of assistance to the mother for the development of a more realistic understanding of the interaction between herself and her child. In addition, the relationship itself will be strengthened through increased acceptance and understanding. Inclusion of mothers with their children in school counseling programs could aid in development of a more positive relationship while placing certain expectations for improvement conjointly on the counselor, the mother, and the child (6), thus resulting in a greater probability of a positive outcome for both mother and child.

The limited research into specific personality or temperament traits among groups of mothers of disabled children reflects the lack of knowledge in this area. The fact that the existing studies did indicate definite deviations from normal profile scores among mothers of children with intellectual deficiencies suggested that mothers of children with learning disabilities may also deviate from the norm.

The major portion of information dealing with parental attitudes has been concerned with the effects of these attitudes on the child and alteration of these attitudes through some type of parent education or counseling program. Since Public Law 94-142 ensures that counseling services will be provided to parents of the handicapped, which includes the learning disabled child, the information regarding the population of mothers of learning disabled children can be used to develop the rationale and suggestions for a counseling and educational approach to these parents. This study has analyzed attitudes and temperament traits common to mothers of children who have learning disabilities and mothers of children who do not have learning disabilities and has compared these attitudes and temperament traits to determine the differences discriminating between the two groups.

Assumptions

This study was based on the assumption that the subjects were representative of the population of white, suburban mothers of children who have learning disabilities and of white, suburban mothers of children who do not have learning disabilities. It was further assumed that the subjects responded honestly to the instruments used to measure attitudes and temperament traits and that the instruments used were sufficiently valid for the purposes of this study.

Limitations

This study was limited because subjects were volunteers. A further limitation was incurred due to the small number of mothers of children with learning disabilities who did volunteer. Due to the limited number of Group I mothers it was necessary to determine statistical separation between a non-random sample of mothers of children with learning disabilities and a random selection of mothers of children who do not have learning disabilities. Appropriate caution should be used in assuming generalizations to samples drawn from populations which differ from the ones used in this study.

Treatment of the Data

Discriminant analysis was used to test all four hypotheses to determine if a separation would distinguish one group from another. Weighting coefficients, group centroids (group means), and classification percentages were computed

for each set of variables. Wilks' lambda test of significance was used to determine the discriminating power of the variables. The .05 level of significance was the level of statistical significance selected for determining the significance of both discriminators and the discriminant function. A classification percentage of 66 percent was required for assuming that there was an adequate separation of groups.

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CHAPTER II

REVIEW OF THE LITERATURE

Parental attitudes, particularly attitudes of mothers, are considered a primary influence on children's academic functioning (4, 21, 61, 82). Learning disabled children often contend not only with the handicap of impaired learning, but also with the negative attitudes of the significant adults in their lives (71). In the past, researchers have recorded significant changes in children's academic performance as the attitudes of these children's mothers changed (10, 31, 35, 59). The literature, however, does not reveal whether the attitudes of mothers of children with learning disabilities are such that these mothers and their parenting attitudes are distinctly different from mothers whose children are not learning disabled.

A review of the literature regarding these variables will be presented in the following sections: (1) identification of parental attitudes among parents of children with handicapping conditions; (2) attitudes of mothers as a primary influence on academics and behavior of children with learning disabilities; (3) temperament traits among mothers of educationally handicapped children; (4) treatment

procedures for altering negative maternal attitudes; and
(5) family systems theory and therapy.

Identification of Parental Attitudes
Among Parents of Children with
Handicapping Conditions

Attitudes exhibited by parents of children who experience academic deficits have been identified by several authors (1, 5, 31, 36). Several investigators have reported that it is not unusual for parents to respond with forms of shock, dismay, grief, disbelief, anger, guilt, feelings of inadequacy, denial, or resentment when informed that their child is learning disabled (2, 60, 66). Schwed (66) considers acceptance of the existence of a learning disability to be more difficult for parents than acceptance of other handicapping conditions due to the fact that the disability is less obvious and the conflicting information concerning the disability seldom provides desired answers. Rejection, indifference, ambivalence, conflict, hostility, overindulgence, overprotectiveness, and permissiveness frequently evolve from an inability for parents to accept their child as learning disabled (1, 2, 60).

Parents of children with learning disabilities were found to exhibit feelings of self-pity and a sense of bereavement, according to the results of a study by Adamson (3). Adamson reported that these feelings, unless dealt with effectively, could possibly lead to overprotection

of the learning disabled child. He concluded that the feelings of despair, guilt, sadness, depression, and hurt were the result of discovering that the child would not immediately fulfill the dreams and aspirations held by the parents.

Schulman, Shoemaker, and Moelis (65) conducted a study comparing attitudes of parents whose children were reported to be behavior problems with parents whose children were not reported to be behavior problems. The results indicated that parents of children considered to be behavior problems exhibited more hostile and rejecting behaviors toward their children than did parents whose children had not been considered behavior problems.

According to a study by Shaw and Dutton (68), stronger negative attitudes were found to exist in parents of children who were experiencing academic difficulties. The study does not attempt to determine if the attitudes are a result or a cause of the poor academic performance, but the fact that not all children in one family were learning disabled led Shaw and Dutton to conclude that the differences in academic functioning of different children within one family could be due to the differing attitudes displayed toward each child.

Hereford's (40) study was not limited to parents of handicapped children, but included parents representative of the normal population. He found a significant relationship between the age of the child and attitudes of acceptance,

trust, and causation. Parents of younger children (six, seven, or eight years of age) showed more acceptance and trust and a greater inclination to regard environment as the cause of the child's behavior than did parents of older children (ten, eleven, or twelve years of age). Therefore, the age of the child was considered to be a significant factor in determining attitudes of parents. The sex of the child appeared to have no relation to the attitudes measured.

Attitudes of Mothers as a Primary Influence
on Academics and Behavior of Children
with Learning Disabilities

Although the influence of fathers on children's academic and social behavior is becoming more generally recognized (8), the current literature suggests that mothers are viewed as the primary source of influence on the child. The fact that learning problems have been viewed as circumstances of the environment indicate that the attitudes displayed by maternal figures toward children play an influential role in shaping children's receptivity to the learning process (80, 82).

In a review of literature related to maternal factors in learning disabilities, Friedman and Meltzer (27) reported several studies which found that mothers create a child-mother dependency when the mothers fear the loss of the close bond between themselves and a particular child (Buxbaum, 1964; Hellman, 1954; Mohler and Schoenburger, 1942;

and Strickler, 1969). The review also reported results which indicate that mothers who resist the separation that intellectual growth would bring encourage their children not to learn successfully (Straver, 1958). These studies suggest the possibility that mothers unconsciously undermine their children's performance and provoke negativistic behavior in a learning situation.

Kaslow (48) found that mothers are confused by a learning disabled child's differentness and frustrated when the child fails to meet developmental milestones successfully. As the mothers' level of anxiety increases, the mother-child interactions become distorted and uncertain. The mothers respond to this uncertainty with feelings of ambivalence and guilt, which, in turn, result in severe depression and overinvestment. The overinvestment reduces the child's opportunity to develop as an individual and, as a result, interferes with the child's adjustment and ability to adapt to the social milieu of the school classroom.

It is not unusual for mothers whose children are learning disabled to feel angry, inadequate, and self-deprecating (47). As the sense of inadequacy arises, the mothers become impatient, irritable, and upset with the children who experience learning difficulties. The anger, in turn, produces guilt and resentment. Attempts to deny or compensate for these feelings often result in making it difficult for these mothers to separate personal needs and

feelings from the needs and feelings of their children. Thus, the children are denied the individuality they deserve (47).

Abrams (2) suggested that children who experience learning difficulties "evoke a response from the mother that indicates that the mother perceives the child as a threat to her own narcissism" (2, p. 752). Any discrepancy between the mother's expectations and the reality presented by the child, has greater meaning to the mother because of this narcissistic investment. As the child fails to meet such set expectations, the mother experiences feelings of anger, hostility, ambivalence, and guilt which lead to faulty mother-child interactions. These faulty mother-child interactions are considered by Abrams (2) to be a major contributing factor to a child's academic and behavioral difficulties.

Patterns of interactions between mother-child pairs were observed and recorded by Doleys (19). Interactions of mother and non-disabled learning child pairs differed from interaction between mother and learning disabled child pairs. Mothers of children with specific disabilities exhibited excessive guidance and control of their children while exhibiting extreme tolerance for their behaviors. The permissive and inconsistent behavior of the mother was reported to be the mother's means of compensating for the child's disability. The mothers of disabled children were frequently

observed to reward inappropriate behaviors of the children, thereby, reinforcing undesirable behaviors. The mothers of the learning disabled children also tended to drill their children in a tutorial manner while mothers of non-learning disabled children were more apt to allow their children the freedom to explore and gain self-mastery skills. Doleys (19) found that permissive and inconsistent maternal behaviors complicated a child's adjustment to the learning situation. The learning disabled children were reported to experience difficulty in attending to tasks, accepting responsibility, and completing an assigned task. These children were also reported to exhibit unacceptable classroom behaviors. Doleys (19) concluded that the adjustment and development of the child were complicated by maternal behaviors.

Several studies concerning the relationship of childhood intelligence and maternal behaviors have been conducted (43, 45, 46). One study revealed that a high degree of maternal criticism was associated with lowered intelligence scores of daughters while a high degree of criticism did not appear to influence later intellectual mastery in males. In addition, maternal restrictiveness was found to be inversely related to a child's intelligence scores regardless of the sex of the child. Hurley (43) reported a significant negative association between children's intelligence scores and hostile or rejecting maternal behaviors. These studies indicate criticism, restrictiveness, hostility, or rejection

from a maternal figure may reduce the intellectual functioning of children and reveal the inhibiting effect of maternal dominance in relation to the learning behavior of children (71).

Tan, Gerdean, and Lawlis (72) conducted a study to determine the correlation between children's school achievement and parental interactional perceptions. The investigators found that fathers' perceptions of the marriage relationship had less effect on the development and achievement of their children than did the mothers' perceptions. These findings further support the importance that maternal attitudes and perceptions are considered to have in motivating children to learn (33).

Lopate, Flaxman, Bynum, and Gordon (49) stated that children whose mothers participated in school-related affairs aided their children in developing more positive attitudes concerning the school, the teacher, and the role of student. Mothers who participated in meetings concerning their children's development were found to have children who made more significant academic progress during the year and who had more positive self-concepts. An additional study by Shelton and Dobson (69) revealed that children who successfully achieved in school were reported to have mothers who were willing to discuss school matters with school officials.

The majority of research indicated that maternal attitudes are a primary influence in maintaining or altering a

child's performance and behavior. One study found contradicting results. In this study, Willis (81) investigated the relationship of three maternal attitudes to academic achievement in a sample of mothers and their emotionally disturbed children. The maternal attitudes of possessing, ignoring, and dominating were not significantly correlated to the children's achievement or successful completion of programs of instruction. With the exception of Willis' (81) study, research emphasizes that defective mother-child interactions interfere with classroom functioning. Mothers and home environments are seen as crucial variables, not only in preparing children for school, but also in creating an attitude and atmosphere that encourages children toward academic success. The more positive the mother-child relationship patterns the more successfully the child was reported to perform within the school setting.

Temperament Traits Among Mothers of Educationally Handicapped Children

Research dealing with temperament traits of parents of special groups of children is limited. Two studies were found which were conducted using the Guilford-Zimmerman Temperament Survey. One study compared parents of educable mentally retarded (EMR) children to parents of children considered to be of normal intelligence. Results indicated that parents of the EMR children received lower scores on the General Activity scale and higher scores on the

Ascendance scale than did parents of normal children (74). Connerly (13) reported that mothers of brain damaged children scored lower on the Emotional Stability scale than did mothers of normal children. Barsch (5) used the California Psychological Inventory to measure personality traits of parents of handicapped children. This group of parents were found to have lower scores on the Sociability scale than did parents of children who were not handicapped.

The results obtained by Connerly (13) and Thoman (74) indicate that parents of children with learning problems differ from parents of normal children on specific scales of the GZTS. Since children with learning disabilities also experience difficulties with learning, it is possible their mothers would exhibit profile results on the GZTS similar to the results of parents of other educationally handicapped children.

Treatment Procedures for Altering Negative Parental Attitudes

Learning is considered to be greatly affected by familial relationships. Such relationships can be considered detrimental or facilitating in the development of the child's natural curiosity. Several authors (52, 55, 83) have suggested that the schools should provide services to parents to increase understanding of their personal contribution in parent-child relationships and to teach parenting skills which will enhance these relationships. Parent

education, counseling, and consultation have been considered appropriate extensions of the school's function in the education of the whole child (15, 16, 21, 52, 55, 83).

O'Connell (55) suggests that school personnel must accept responsibility for helping parents with their children by offering assistance that will allow parents to improve their child-rearing methods.

Parent education groups conducted by either school or non-school personnel have been used extensively as a means of helping parents help their children (39, 52, 59). The present programs were expanded from meetings which began as early as 1820 when mothers gathered to discuss child-rearing problems. Mothers continue to attend more frequently than fathers (14). Since fathers tend to participate less in their children's educational process, mothers are the parent who most normally attend meetings, consultations, and educational programs designed to assist in better understanding their children (40). In general, these groups are considered to be educational in nature, but may differ according to philosophy, purpose or design. Bricklin (9) suggested that parents participate in parent education programs so they can realize the importance of specific roles that they have as a parent in the helping process.

Dinkmeyer and McKay (18) developed a program for parents (Systematic Training for Effective Parenting) based on a philosophy of child-training which has been considered to be

valuable for use with any parent population. The program was designed from a reading-discussion approach and deals with teaching more effective child-training principles and methods.

Dreikurs (21), Gordon (32), and others have developed programs for teaching effective child-training skills to parents. These programs, designed to be used with all parents, require reading, discussions, and application of the concepts and principles. Basic concepts, rather than individual concerns, are presented and discussed while personal solutions can be found through study and practice.

McWhirter (51) designed education groups specifically for the purpose of presenting factual information concerning learning disabilities to interested parents. The groups were given information concerning various aspects of learning disabilities in an environment that provided emotional support rendered by other parents experiencing similar difficulties. Activities were designed to aid parents in experiencing directly the world of the learning disabled. McWhirter (51) concluded that such a program increases understanding of these children and the difficulties they experience and aids in developing a mutual trust between the school, parent, and child. The understanding and developed trust are considered to improve the educational environment of children.

Veltkamp and Newman (78) found that a strictly educational approach to child-rearing was not beneficial to all parents. Therefore, they combined the educational approach with small group counseling. Broad concepts of child-rearing from an educational standpoint were presented and discussed in large groups while the counseling groups focused on application of the general concepts as they applied specifically to each individual. The small groups allowed each parent to deal with personal feelings and resistances in a non-threatening, supportive environment. The authors (78) found that this combined approach provided desired long-range effects which the educational approach by itself had failed to produce.

Parent Discussion Groups (PDG) was developed by Grill (34) as a means of altering attitudes and behaviors toward children with learning disabilities. PDGs are co-led by a counselor and learning disabilities specialist with consultation from experts in the fields of education and learning disabilities. The purposes are to provide factual data concerning children with learning disabilities with emphases on the affective needs of learning disabled children, examination of child-rearing techniques, recognition of the individuality of each child, and exercises for aiding parents in dealing with their own children. Grill (34) has found that these discussion groups are effective means of altering attitudes and child-rearing practices. Parents and

teachers reported positive changes in the behavior and learning of the children who had a parent or parents who participated in the program.

The principle that programs must be designed to meet the specific needs of a variety of people has been applied to parent programs by Gilliam (30). The author found that a diversity of programs is necessary to provide services for a diverse population. Gordon's Parent Effectiveness Training (PET) was used by Gilliam (30) with middle and upper class parents because the PET program, which requires a fee and includes assignments, was considered by Gilliam to be a more sophisticated approach appealing to a more highly educated group of parents. A second method was developed for use with, what Gilliam referred to as, the blue collar population. This approach, "practical parenting," incorporated the principles of PET using different methods and materials. The cost, to the parent, was reduced and audiovisual materials were used instead of reading assignments. A third method was designed for nonliterates. The entire program was conducted verbally through the use of audiovisual materials and video-tapes showing examples of child-rearing principles. The cost for participation was either minimal or non-existent. Gilliam (30) found that the different approaches resulted in allowing all educational levels of the population to gain beneficial information regarding parent-child rearing principles.

Improving maternal attitudes and behaviors through counseling has been the premise of many studies (10, 23, 31, 35, 52, 59, 70). These studies indicate that a child's academic performance and behavior improved when the child's mother was involved in counseling. Counseling sessions for mothers of children with learning disabilities were conducted for the purpose of determining if positive changes in the mothers would produce positive academic or behavioral improvements in the children (10, 23, 35, 52, 59). These researchers reported increases in positive maternal attitudes resulted in improved classroom production and behavior for the children (10, 23, 31, 35, 52, 59, 70). Gilmore (31) reported that students of counseled mothers improved most significantly in the areas of academic and family functioning. Spector's (70) study indicated that regardless of the counseling approach utilized, children whose mothers were involved in a group counseling program showed more significant gains in academic performance and behavior control than did those children whose mothers were not involved in any type of helping relationship.

A study by Martin (50) was designed to determine if constructive changes could be made in the mother-child relationship without including fathers or other family members in the therapeutic process. The researcher found that exclusion of the father did not interfere with the process of changing the character of the interaction.

Martin (50) concluded that fathers do not necessarily help maintain faulty mother-child interactions nor do they restrict constructive changes when such changes do occur. The study by Martin did not infer that fathers exerted no influence at all, but that fathers were not viewed as disruptive agents when excluded from therapy.

In general, these studies indicate that children who improve in academic performance and behavior tend to have mothers who communicate their concerns to and show affection toward the child. Such research suggests that counseling aids mothers in dealing with the feelings and attitudes which may have blocked realistic acceptance and understanding of their child. As alterations are made in the home environment in which the child functions, changes in the child's successful functioning is reported repeatedly.

Neifert (54) determined that some specific home problems interfered with the family's ability to bring about positive changes in the child's academic functioning. The identified blocks were (1) when the mother considered something wrong with the child, but received no support from the father resulting in a reduction of motivation and willingness to cooperate on the part of the child; (2) when the mother and child were in a power struggle, the rebellious child refused to participate and mother felt defeated and angry; (3) when the family experienced multiple problems such as marital problems, financial difficulties, or health problems.

Counseling for parents of learning disabled students has, until recently, been conducted primarily outside the school setting. The passage and enactment of Public Law 94-142 now places the responsibility of such services on the schools (42). Downing (20) recommended that parent counseling services be provided in the school, and designed a model for implementation of such services. In this model, individual and family counseling services are scheduled during school hours, afternoon hours, and in evenings. The program requires that counselors be allowed more flexible working hours in order to meet the needs of working parents.

Research investigating the effectiveness of various educational and counseling approaches is extensive. Generally, the findings suggest that parental involvement in any program is more advantageous than non-involvement (31, 34, 51, 64, 69, 77, 78). Parent education groups, counseling, and combinations of the two approaches reportedly provide more positive changes in maternal attitudes and behaviors with subsequent positive behavioral and academic changes in their children than do interventions with children alone (39, 75). Thus, intervention for children with learning disabilities should incorporate some type of maternal involvement in the school educational and counseling program. If a parent cannot be or chooses not to be included in counseling programs with their child, a program of consultation might prove beneficial to both parent and child.

According to Muro and Dinkmeyer (53), Dinkmeyer and Carlson (16), Dinkmeyer and Caldwell (15), and Dinkmeyer and Dinkmeyer (17) consultation is viewed as an education process, involving two or more persons, where issues of concern about a third party are examined, behaviors investigated, and alternatives considered. Consultation differs from counseling in that it is an educational rather than psychotherapeutic process. Unlike parent education groups which focus on broad concepts, consultation emphasizes the specific concerns of an individual or group.

Wright (83) conducted a study using a consultation model with mothers whose children experienced adaptation problems in school. The data supported positive changes in the mothers' knowledge of effective parental behaviors and an increase in positive adaptation functioning in their children "due to participation of the mothers in the consultation process" (83, p. 148). Wright (83) concluded that parent consultation was an economical and valid means of changing mothers' knowledge of their parental skills and their children's level of adaptation.

A model of family consultation, developed by Buckland (11), focused on identification of strengths and weaknesses, and teaching family members problem-solving skills and basic communication skills. "The consultant's goal is to aid the family in moving toward an open system where communication

is clear, direct, and specific" (11, p. 54). Buckland (11) described this approach as useful in short-term therapy.

Ineffective communication is considered to be a major contributor to family difficulties (28, 71, 73). A consultative approach designed to teach communication skills to mother and child was used by Terkelson (73). Initially, mother and child were placed in groups together to practice and reinforce the skills learned. Terkelson (73) reported that such a method revealed an increase in awareness of feelings, a willingness to express feelings, and an increase in listening from both mother and child.

Family Group Consultation (FGC) is a short-term approach to teaching families to resolve conflicts. Using the Family Bond Inventory (FBI), Fullmer (28) determined each family member's perception of the key relationships in the family and revealed the primary bonds with the family system. During the consultation sessions, techniques for resolving conflicts were taught. Problem-solving, effective communication, active listening, acceptance of others, and areas of conflict were explored through verbal interaction. Fullmer (28) found that these consultation sessions resulted in more realistic evaluations of the family's functioning by the family members.

The use of consultation provides counselors with an additional means of meeting the needs of parents, students, and staff. The counselor's role as consultant is to educate,

guide, and suggest specific programs which can be executed by parents and school personnel (41). As the parent and school personnel strive to alter the environment to facilitate the child's growth, the bond between school and home is strengthened (22, 75). The parent who participates in such a cooperative effort aids in integrating the child's school and home life and therefore, provides the child with a model of participation and cooperation in a major area of his life.

Mothers and fathers who become involved through parent education programs, counseling, consultation, or volunteer programs within the school are an asset to the public education program (12, 33). As a parent becomes more directly involved in the educational milieu of the child, the factors influencing the educational performance of the child tends to be more positive. This involvement aids in creating an atmosphere, both at home and school, in which the child can function more effectively (33).

Family Systems Theory and Therapy

Family systems theory is based on the belief that disturbance belongs not to an individual, but to a dysfunctional family system (26, 37, 56, 57, 63). Systems theory evolved as therapists became disillusioned with traditional individual approaches when clients regressed upon returning to their families or when family members developed symptomatic

behaviors as the "identified client" began to improve (26, 38, 56, 62). The emphases shifted from altering the individual to changing sequences of behaviors between family members (6, 26, 37). Most systems therapists involve the family directly in treatment in order for each member to benefit from the process while interacting with individual family members (56), however, frequently family therapists will work with the mother-child dyad exclusively (27, 50).

A knowledge of human behavior provided the rationale for the initial shift from individual child therapy to family therapy (37, 38, 63). The experts consistently agreed that the major advantage of including family members was that the participating family members were actively and positively involved in the process (26, 37, 56, 62, 63, 84). Even though family therapists suggest seeing entire families, most have found that working with mother-child dyads does result in positive changes within the family system (26, 62). When the family or family subsystem are included in therapy the chance of receiving incorrect information is reduced and each participating family member knows what has occurred and what agreements have been made (62). By being directly involved in the treatment process, family members are able to experience and report a reduction in parent-child conflicts, a reduction in intrafamily tension, and an improvement in communication (38, 56, 62, 63).

Few studies have been found which provide any type of systematic evaluation of the process and outcome of family therapy. To date, most of the work concerning the systems approach has been in the area of family interaction rather than measurement and evaluation of the process itself.

Berg and Rosenblum (7) surveyed family therapists in an attempt to determine the extent that fathers were involved in therapy. The therapists reported that initial contact was made predominantly by mothers and that fathers frequently did not attend the first session. Fathers were viewed by the therapists, as being most resistant to family therapy and absent more frequently, with more cancellations due to fathers. Shapiro and Budman (67) studied deflection, termination, and continuation in family and individual therapy. The results revealed that more families dropped out during the evaluation process and terminated prematurely than did persons in individual therapy. The findings also suggested that terminating families viewed fathers as the parent responsible for termination. Families who continued in therapy saw fathers as enthusiastic participants.

Interactional variables in normal and abnormal families were studied by Ferreira, Winter, and Poindexter (25). They investigated parameters of family verbal interactions. The results revealed that abnormal families spent more time in silence and therefore, requested extensions of time more frequently. The abnormal families experienced difficulty in

completing the problem-solving tasks within time limits due to the amount of time spent in silence. Factors of age and sex of children were not considered to be an influence in any of the interactions among family members.

The overall success rate for family therapy with children and adolescents was reported to be 79 percent compared to a 73 percent improvement rate with children in individual psychotherapy (79). The indications were that family therapy was slightly more successful than individual therapy when children and adolescents were involved, but Wells (79) failed to determine whether or not the findings were significantly different.

Treatment with the family as the major focus, regardless of which family members are included in a session, is thought to be the most viable approach for personal interactions and communications (37, 56, 63). Maximum therapeutic benefit appears to be gained from conjoint family therapy, wherein the entire family works with a therapist focusing on patterns of family interactions (26), provided the family members are ready for this type of interactional process. Conjoint family therapy provides for a sharing of ideas and more effective coping such that the family functions as a unit (26, 38, 63). Epstein (24) has suggested a program of brief therapy so that families can gain competency in areas of relationship and child management. Seeing the parent and child together allows for direct observation of interactions

between and among the family members which aids in determining needed changes which Epstein (24) suggests can be gained in a brief period of time, usually six to ten weeks.

School counselors need to be sensitized to the needs and concerns of the family. The insights and ramifications of family counseling can extend and enhance the capabilities of the school counselor (44). Since Public Law 94-142 stipulates that counseling services will be provided for parents of handicapped students (42), it is plausible to consider family counseling as the most advantageous approach whether all family members or only mother-child dyads are included.

Several authors (29, 58, 76) have developed models for establishing a systems approach in the public school setting. Viewing the family and public school professional staff as a family unit was the basis of a project designed by Tucker and Dyson (76). Systems therapy processes were used by a consultant who met with the school and family unit consisting either of mother and child or parents and child. The goal was to reverse maladaptive school behaviors of children and develop constructive interactions between the school staff and the family. The focus of concern, among school personnel, shifted from the child to the family unit. As the staff developed new insights into learning problems as a product of disturbed family relationships, they were better able to modify personal teaching methods and behaviors to increase the child's ability to function more successfully within the

classroom. Communication between home and school was improved as the significant adults in the child's life worked together to improve the problem situation and aid the child in making needed alterations in behavior.

Garrigan and Bambrick (29) worked with families of learning-disabled children who were referred through the schools. They found that family therapy resulted in a reduction of anxiety in male clients referred to them, but not in females. Regardless, the schools reported that beneficial effects of family therapy extended outside the family as the students began to show improvement in their academic performance and behavior in school.

Phillips (58) presented a rationale for marriage, family, and child counseling in the public schools. The program was designed to first, provide family life education for all school-aged children and second, to offer courses and groups for the purpose of helping adults acquire various approaches to family management. The counseling program offered relationship counseling to students, parents, and families using specially trained school staff personnel under the supervision of a licensed marriage and family counselor. Phillips (58) suggested that counselors and teachers could be trained for helping families in interpersonal relationships, communication, and parent-child education. Such an approach was considered to be a creative challenge to the public school system.

As one views the child as a result of interactions with significant others, it is becoming necessary to consider the family system as a primary influence on the child's attitudes and behaviors. The literature suggests that the trend is to move away from treatment of the individual toward treatment of the individual within the primary social system of the family (26, 37, 38, 57, 63). This movement needs to be considered by those in the public schools if they are to provide the most effective help available. It is possible that the schools can implement a program that includes mother-child dyads if family counseling is not within the realm of possibility.

Summary

The literature indicates that attitudes expressed by mothers of children who have learning disabilities are less positive and less supportive than those attitudes exhibited by mothers of children who do not experience learning difficulties. These negative maternal attitudes appear to result in faulty mother-child interactions which adversely influence the academic functioning and behavior of children. Improved maternal attitudes have been found to result in significant, positive improvements in a child's performance in the learning process and further emphasizes the importance maternal attitudes have on children.

Existing information concerning temperament traits of mothers of children with special learning problems indicates that these mothers differ from mothers of children who do not exhibit such academic problems. This data may suggest similar results for mothers of children with learning disabilities.

Methods for working with mothers of children with learning disabilities to aid in altering attitudes and mother-child interactions include parent education groups, counseling (groups, mother-child dyads), consultation, and family counseling. Each of these approaches can be implemented into the school setting, usually with little additional training. Family counseling would require support staff specially trained in family dynamics.

Even though there have been extensive investigations into maternal attitudes; the part these attitudes play in a child's development and performance; and the approaches available to alter these existing attitudes; information does not exist concerning whether or not mothers of children with learning disabilities are distinctly different from mothers of children who do not have learning disabilities. From the available information, one may speculate that the differences in attitudes and temperament traits would aid in creating a distinct difference between these two groups of mothers.

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CHAPTER III

METHODS AND PROCEDURES

This chapter presents in detail (1) the procedures involved in subject selection, (2) the instruments used, (3) the procedures involved in collection of the data, and (4) the statistical procedures employed in analyzing the data.

Selection of Subjects

The subjects for this study were white suburban volunteer mothers from a North Texas metropolitan area selected from two populations: (1) mothers whose children have learning disabilities [Group I] and (2) mothers whose children do not have learning disabilities [Group II]. Both populations consisted of mothers whose children were enrolled in elementary school, kindergarten through sixth grades. (See Appendix, Table XIV.)

Participants in Group I were mothers whose children had been placed either in private schools for the learning disabled or in public school classes for the learning disabled for a minimum of one-half hour a day. The group was further delineated in that the children had to have been diagnosed and placed in special educational situations for

not less than one year. This stipulation aided in reducing the possible inclusion of mothers whose children were not learning disabled, but whose children had received special education assistance on a short term basis.

Group II was limited to mothers whose children had never been evaluated, diagnosed, nor placed in any learning disability or other special education program. This delimiting factor insured that subjects included in Group II were, on this variable, different from subjects selected for Group I.

Group I volunteers were secured through the local Association of Children with Learning Disabilities (ALCD) and from local private schools identified specifically as schools for children with learning problems. The investigator addressed group meetings of these mothers and explained the purposes of the study and distributed data sheets (see Appendix). Mothers meeting the specific qualifications for Group I and wishing to participate in the study filled out the data sheets and returned them to the investigator prior to the end of the meeting. The following directions were given to mothers who had more than one child meeting the qualifications for the study.

1. The child who had been placed in special classes for the longest period of time would be selected as the identified child.

2. If two or more children in one family had been placed in special classes for the same length of time one would be arbitrarily selected as the identified child.

Group II mothers were selected, using a table of random numbers, from the rolls of twenty-four local elementary schools. To insure exclusion of those mothers who did not qualify for Group II and to account for those mothers who would not desire to participate, a total of 150 names were selected initially. These mothers were contacted by telephone by the investigator. During the telephone conversations the study was explained and names of volunteers were secured.

The limited number of Group I mothers who volunteered to participate necessitated utilizing all volunteers in the sample. Group II was composed of the first thirty-five mothers from the randomly selected school rolls who agreed to participate. The final sample consisted of seventy mothers, thirty-five mothers in each group.

Description of the Instruments

Since no consistent use of any one instrument measuring parental attitudes was found in the literature, the Hereford Parent-Attitude Survey (HPAS) was selected for use in this study because of the specific parenting attitudes it was designed to measure (see Appendix). The HPAS purports to measure dimensions of parental attitudes on five scales consisting of fifteen items each. The survey yields a

specific score for each dimension. Therefore, five separate scores, one for each scale, are obtained for each respondent (2).

Specifically, the HPAS measures the following:

1. Confidence in the parental role--the positive and negative feelings a parent has about being a parent.
2. Causation of the child's behavior--the dimension of natural or inherent causation as contrasted with environmental or parental influences.
3. Acceptance of the child's behavior and feelings--the degree to which the parent experiences acceptance or rejection of the child's behavior and feelings.
4. Mutual understanding--the degree to which the parent believes in the importance of sharing and communicating attitudes, feelings, and problems with the child.
5. Mutual trust--the degree to which the parent respects the child's individuality and feels the child can be trusted (2).

Each item on the HPAS is scored on a five point continuum from strongly agree to strongly disagree. According to Hereford (2), the survey has no "right" or "wrong" answers, but the responses are weighted to determine existing attitudes exhibited by the respondent. "The extremes of this five-point scale are scored +2 or -2, depending on whether the item is stated positively or negatively. Likewise the Agree and Disagree choices are

scored +1 or -1; the Undecided response is scored zero" (2, p. 43). The scoring yields a possible high score of +30 to a low score of -30 for each of the five scales. The degree to which a particular attitude is incorporated by an individual is determined by this scoring criteria (2).

The items for each dimension were selected by Hereford from similar instruments or written by the staff developing the HPAS (2). The items were classified according to their appropriateness for the respective dimensions by five judges. The judges, working independently from one another, placed each item in the dimension area to which it most closely pertained. Using this method, a majority of the items showed 100 percent agreement among the judges (2).

The final survey consists of fifteen items for each dimension. Items with the highest correlation coefficients between the item score and the total scale score were retained as being representative items measuring the specific dimension in question. Hereford (2) reported, "A study of the content of the items with the highest item-scale correlations showed that the five scales appear to fit their predicted dimensions fairly closely" (2, p. 54).

The reliability of the five scales are reported to range from .78 to .84 with a mean split-half reliability coefficient of .80. These split-half reliability coefficients are considered to be well within the satisfactory range of reliability for this type of measuring instrument.

A mean intercorrelation of .46 indicated that though measuring related parent attitudes, each scale did measure different aspects and areas of the broader dimension (2).

The Guilford-Zimmerman Temperament Survey (GZTS) was selected for use in this study because "The GZTS is often used in evaluation of temperament characteristics of groups that are of special interest to the investigator" (1, p. 191). Studies have been conducted using the GZTS to determine differences in the temperament traits of groups of volunteers, fraternity members, mothers and fathers of special groups of children, orphans, and militants (1). Since mothers of children with learning disabilities might reflect temperament traits similar to traits found in mothers of special groups of children, the GZTS was selected as the measurement instrument for this study. In addition, the GZTS was selected because it measures "temperament traits" rather than "personality factors." The investigator was of the opinion that mothers might respond more honestly and be less threatened when the instrument used did not refer to the factor of "personality."

The GZTS measures the degree to which individuals implement ten specific traits into their own temperament profiles. Only nine of the traits measured by the GZTS will be used for this study. The nine traits are

1. General Activity (G)
2. Restraint (R)

3. Ascendance (A)
4. Sociability (S)
5. Emotional Stability (E)
6. Objectivity (O)
7. Friendliness (F)
8. Thoughtfulness (T)
9. Personal Relations (P)

The tenth trait, Masculinity, has been omitted because it requires "acceptance of the traditional social-cultural male-female attitudes toward masculinity and femininity" (1, p. 298). Each of these traits is measured along a continuum from positive to negative qualities. A high score indicates more positive qualities and a low score negative qualities. Extreme positive qualities do not necessarily indicate the best adjustment, but extreme negative qualities tend to indicate difficulties in adjustment in regards to the particular dimension measured (1).

Estimates of the total-score reliabilities were obtained using the Kuder-Richardson formulas. Correlations between first and second halves and odd-even halves ranged from .75 to .85 with standard errors ranging from 2.2 to 2.6 (1). The GZTS has been correlated with other instruments designed to measure the same specified variables in personality to determine the convergent validity. The higher correlations reported indicate that the GZTS does measure the specifically stated traits (1).

Collection of the Data

Group I, thirty-five mothers of children who have learning disabilities, and Group II, thirty-five mothers of children who do not have learning disabilities, were notified by the investigator by telephone as to the date, time, and place where testing would be completed. Mothers who were unable to attend the first testing session were given an alternative date. Additional arrangements for individual and small group administration of the testing instruments were made for eighteen subjects. Follow-up letters reminding the participants of the testing sessions were mailed approximately one week prior to testing (see Appendix).

In preparation for the gathering of the data, the investigator placed the HPAS, GZTS, and GZTS answer sheets in brown envelopes with a demographic data sheet (see Appendix) attached to the outside of each envelope. The tests were placed in the envelopes in alternate order. One-half of the envelopes for each group had the HPAS placed on top, the second half for each group had the GZTS placed on top. Test packets alternated in this manner in order to reduce or at least equalize the possible influence one test might have on the participants' responses to the other test.

The first testing session was held in a church classroom which contained four long tables. Chairs were arranged

on either side providing adequate space for each participant. Subjects were given test packets according to their respective group designation. The attached data sheets were the only discriminating factor on the packets so envelopes were distributed according to these data sheets. The data sheets differed only in the information concerning the learning disabled child. Identification numbers were recorded on each data sheet so participants could secure feedback if they so desired.

Each subject was asked to fill in the data sheet, but requested not to open the packets until after instructions were given. The data sheets were checked by the investigator to insure that the necessary information was provided. Following this initial part of the session, the investigator read the instructions for both tests verbatim from the tests themselves. During alternative sessions, verbal test instructions were alternated. Prior to opening the packets, questions were answered and needed explanations made.

Once the verbal instructions were given and questions answered, subjects were instructed to open their packets and begin. Mothers were instructed to return completed tests and booklets to the envelopes and return these envelopes to the investigator. The subjects were told they were free to leave when both instruments were completed. Subjects desiring interpretation of the data were given the address of the investigator and asked to write requesting

this service using the identification number given on their individual packets. Additional testing sessions were held in the home of the investigator or in the homes of participants with the same procedures followed.

Treatment of the Data

Completed inventories were removed from the packet and hand-scored. The scores were recorded on record sheets (see Appendix) which were then attached to the packet. The scored inventories were returned to the envelope. The test scores and demographic data information were coded for data processing.

Hypotheses 1, 2, 3, and 4 were tested by a discriminant analysis. The SPSS discriminant analysis stepwise program was used to determine whether differences in the two groups were statistically significant.

The discriminating variables (demographic data, HPAS scores, and GZTS scores in this study) measure the characteristics on which the groups are expected to differ. The objective is to weight and linearly combine the discriminating variables such that groups are forced to be as statistically distinct as possible. The major objective is to find a single dimension on which the groups cluster at opposite ends (4, p. 435).

It is possible for two groups to have nonsignificant differences on each of the variables but for the overall difference between profiles to be significant. Such tests combine all the information from the different variables in one overall test of significance (5, p. 454).

The SPSS discriminant analysis subprogram, stepwise procedure, was utilized.

The stepwise procedure begins by selecting the single best-discriminating variable, a second discriminating variable is selected as the variable best able to improve the value of the discrimination criterion in combination with the first variable. At each step, variables already selected may be removed if they are found to reduce discrimination when combined with more recently selected variables. Eventually, either all variables will have been selected or it will be found that the remaining variables are no longer able to contribute to further discrimination (4, p. 436).

The Wilks' lambda test of significance was used to determine the discriminating power that existed in the variables being explored (4). The discriminating power of the test correlates inversely with the size of the obtained lambda (4, 5). The .05 level of significance was used to determine statistical significance on this aspect of the analysis. Group centroids (group mean scores) were computed to determine the average profile for each group on each set of variables (3, 4, 5). The group centroids provided information concerning actual separation along a continuum and the space occupied by the group members (4, 5). Weighting coefficients were computed for discriminate variables. The standardized weighting coefficients served to identify the variables which contributed most to differentiation while the unstandardized coefficients were used to compute discriminant scores for each subject (4). The percentage of correctly classified group members provided information

regarding the separation of the two groups (4). At least 66 percent of members correctly classified was considered necessary to assume that two different groups had actually been tested.

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CHAPTER IV

ANALYSIS OF RESULTS AND DISCUSSION

The purpose of this chapter is to present and discuss the findings of an investigation of parenting attitudes and temperament traits between two groups of mothers of school-aged children. The study was designed to statistically distinguish between a group of mothers of children who have learning disabilities and a group of mothers of children who do not have learning disabilities as determined by the variables of maternal attitudes, temperament traits, age of mother, age of child, sex of child, and number of years child has been in school. Means and standard deviations were computed for each group on all variables (see Table Appendix). A discriminant function analysis was used to determine discrimination between the two groups on each set of variables. The data are presented and examined as they relate to each hypothesis. A collective discussion follows the presentation of the results for all hypotheses.

Results

Hypothesis 1

Hypothesis 1 stated that there will be significant differences in scores obtained on the Hereford Parent-Attitude Survey (HPAS) which differentiate the group of

mothers of children who have learning disabilities (Group I) from the group of mothers of children who do not have learning disabilities (Group II). The HPAS consists of five scales: Confidence, Causation, Acceptance, Mutual Understanding, and Mutual Trust. The stepwise discriminant function analysis of the HPAS variables resulted in the selection of the variable of Confidence as the major discriminator (see Table I). The \underline{F} value obtained for Confidence was the only \underline{F} greater than the entry criterion value ($F \geq 1.00$), this variable alone was subjected to further analysis.

TABLE I
SUMMARY OF DISCRIMINATOR SELECTION CRITERION
FOR DISCRIMINANT FUNCTION ANALYSIS ON HPAS
N=70

Variable	\underline{F}^* to Enter or Remove	Wilk's $\underline{\lambda}$	df	Significance
Confidence	2.47246	.96492	1,68	.120
Causation	.73315	. .	. .	. .
Acceptance	.25645	. .	. .	. .
Mutual Understanding	.23468	. .	. .	. .
Mutual Trust	.64497	. .	. .	. .

*($F \geq 1.00$)

The discriminant function analysis was conducted to determine the discriminating power of the variable,

Confidence. The results of the discriminant function analysis are found in Table II.

TABLE II
DISCRIMINATING POWER OF DISCRIMINANT FUNCTION
FOR PARENT ATTITUDES
N=70

Discriminant Function	Wilk's λ	Chi-Square	df	Significance	Discriminator	Standardized Coefficient
1	.9230	5.408	1	.020	Confidence	1.000

According to these results, Confidence is the only attitude contributing to separation of the two groups. Since the remaining four variables did not initially meet the criterion for entry into the discriminant function analysis at a level greater than chance ($F \geq 1.00$), they have negligible discriminating power in group separation. The standardized coefficient for Confidence indicated that this variable is contributing totally to the function determined in the analysis. The unstandardized coefficient for Confidence (.15497) and a constant (-1.03609) were utilized in the computation of a discriminant score for each subject (see Appendix).

The discriminant scores obtained for each subject on the Confidence function have been plotted to the nearest tenth along a continuum and in relation to group centroids (mean discriminant scores). (See Figure 1.) The two groups exhibit considerable overlap when discriminant scores are plotted. Therefore, although Confidence is the only significant discriminator of all the HPAS attitude variables, the two groups do not clearly separate on that variable. As a further check for adequacy of the discriminant function, however, analysis of the classification of the original set of cases was conducted to determine the percentage of cases correctly classified by the discriminating variable (see Table III).

TABLE III
CLASSIFICATION PERCENTAGES ON ATTITUDE VARIABLE
N=70

Actual Group	No. of Cases	Correctly Classified Cases*	Incorrectly Classified Cases
Group I	35	21 60.0%	14 40.0%
Group II	35	21 60.0%	14 40.0%

*60.00 percent of "grouped" cases correctly classified.

On the basis of the linear comparison of group discriminant scores and the low percentage of cases correctly classified by the discriminating variable, Hypothesis I was not supported.

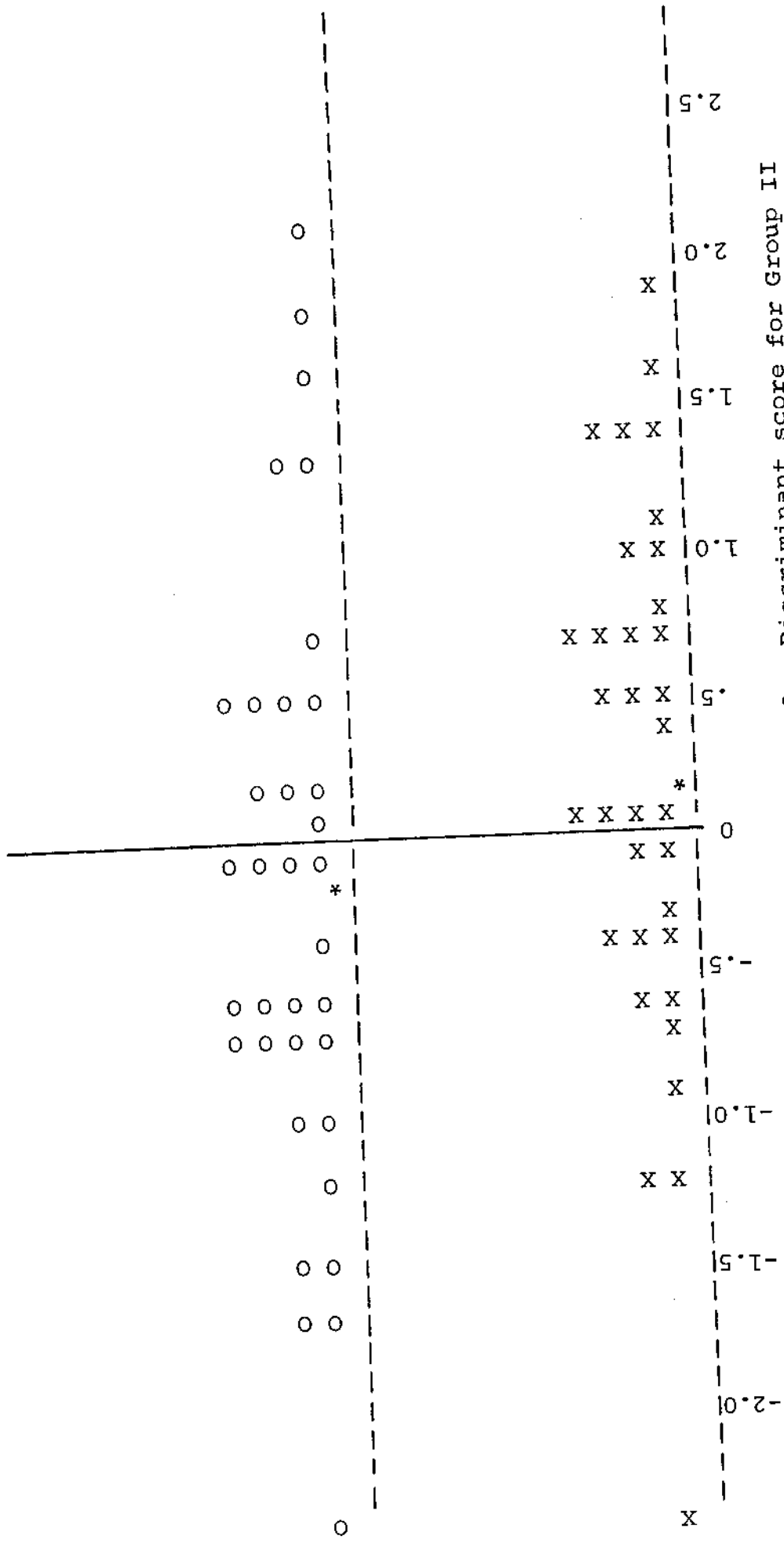


Fig. 1--Plot of discriminant scores for analysis of Confidence as discriminator.

Hypothesis 2

Hypothesis 2 stated there will be significant differences in scores on the Guilford-Zimmerman Temperament Survey (GZTS) which differentiate the group of mothers of children who have learning disabilities (Group I) from the group of mothers of children who do not have learning disabilities (Group II). The GZTS consists of nine scales: General Activity, Restraint, Ascendance, Sociability, Emotional Stability, Objectivity, Friendliness, Thoughtfulness, and Personal Relations. The discriminant function analysis of the GZTS variables resulted in the selection of the variable of Ascendance as the major discriminator (see Table IV). This variable alone was subjected to further analysis.

TABLE IV

SUMMARY OF DISCRIMINATOR SELECTION CRITERION
FOR DISCRIMINANT FUNCTION ANALYSIS ON GZTS
N=70

Variable	F* to Enter or Remove	Wilk's <u>lambda</u>	df	Significance
Ascendance	2.70206	.96178	1,68	.105
General Activity	.51808	. .	. .	. .
Restraint	.89422	. .	. .	. .
Sociability	.45640	. .	. .	. .
Emotional Stability	.17501	. .	. .	. .
Objectivity	.05672	. .	. .	. .
Friendliness	.55023	. .	. .	. .
Thoughtfulness	.55725	. .	. .	. .
Personal Relations	.05553	. .	. .	. .

*(F \geq 1.00)

A discriminant function analysis was conducted to determine the power of the variable, Ascendance, to discriminate between groups. The results of the discriminant function analysis are found in Table V.

TABLE V
DISCRIMINATING POWER OF DISCRIMINANT FUNCTION
FOR TEMPERAMENT TRAITS
N=70

Discriminant Function	Wilk's λ	Chi-Square	df	Significance	Discriminator	Standardized Coefficient
1	.9376	4.346	1	.037	Ascendance	1.000

These results indicate that the variable, Ascendance, is the only significant ($p < .05$) temperament trait contributing to the separation of the two groups. The remaining eight variables on the GZTS failed to meet the initial criterion for entry into the discriminant function analysis at a level greater than chance ($F \geq 1.00$) and therefore, were considered to contain little discriminating power or importance in the group separation. The standardized coefficient for Ascendance indicated that this one variable makes the total contribution to the function determined in the analysis. The unstandardized coefficient for Ascendance (.18115) and a

constant (-2.68367) were utilized in the computation of a discriminant score for each subject (see Appendix).

The discriminant scores obtained for each subject on the Ascendance function have been plotted to the nearest tenth along a continuum and in relation to group centroids (mean discriminant scores) in Figure 2. This representation of subject's discriminant scores indicates considerable overlap along the continuum. Although Ascendance is the only significant discriminator among the GZTS temperament triat variables, the two groups exhibit considerable overlap on that variable. As an additional check for adequacy of the discriminant function, however, analysis of the classification of the original set of cases was conducted to determine the percentage of cases correctly classified by the discriminating variable (see Table VI).

TABLE VI
CLASSIFICATION PERCENTAGES ON TEMPERAMENT VARIABLE
N=70

Actual Group	No. of Cases	Correctly Classified Cases*	Incorrectly Classified Cases
Group I	35	19 54.3%	16 45.7%
Group II	35	18 51.4%	17 48.6%

*51.43 percent of "grouped" cases correctly classified.

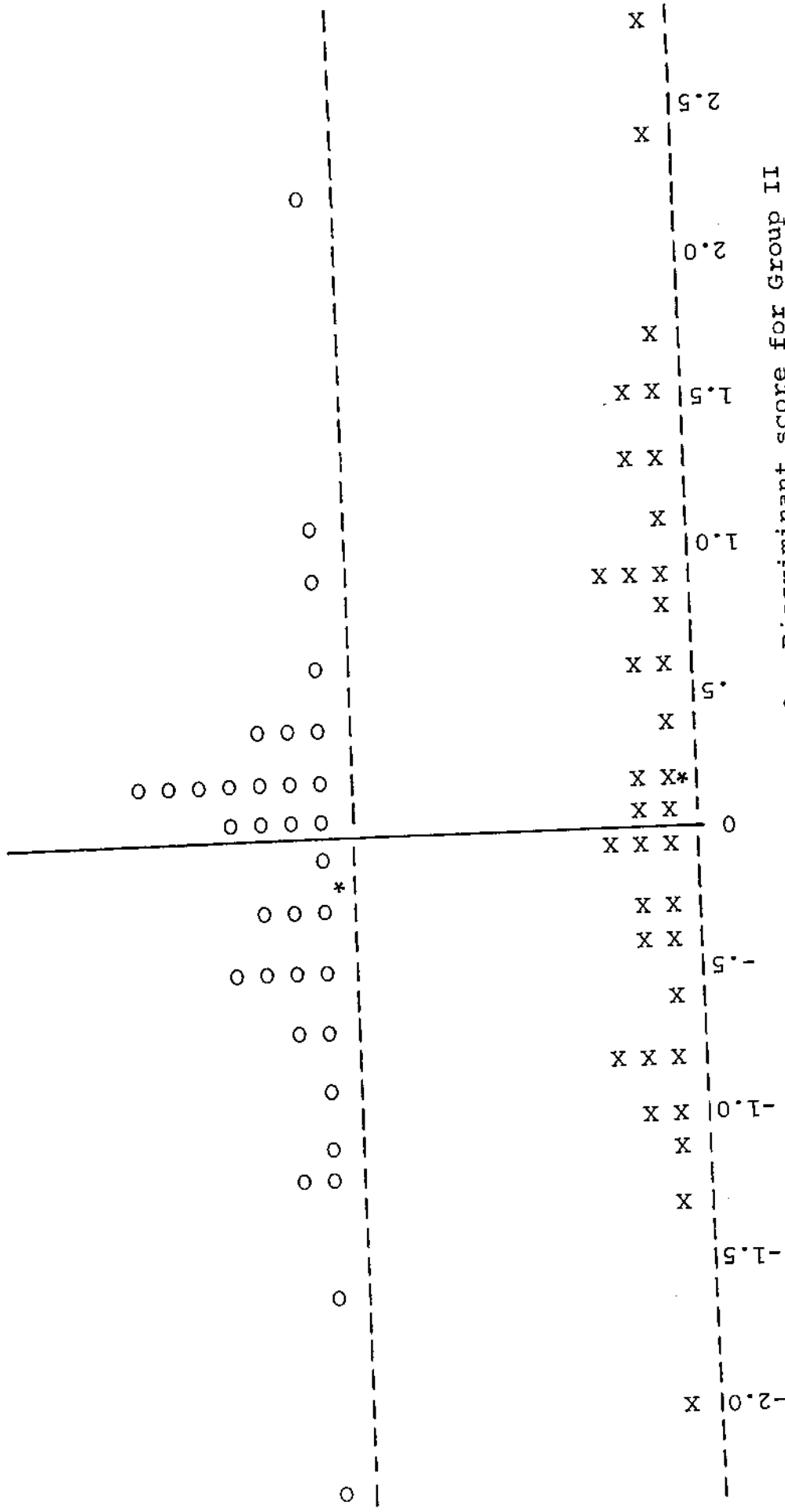


Fig. 2--Plot of discriminant scores for analysis of Ascendance as discriminator.

On the basis of the linear comparison of group discriminant scores and the low percentage of cases correctly classified by the discriminating variable, Hypothesis 2 was not supported.

Hypothesis 3

Hypothesis 3 stated there will be significant differences on the variables of age of mother, age of child, sex of child, and number of years child has attended school which differentiate the group of mothers of children who have learning disabilities (Group I) from the group of mothers of children who do not have learning disabilities (Group II). The stepwise discriminant function analysis of these demographic variables resulted in the selection of child's age, age of mother, and sex of child as the major discriminators of group differences (see Table VII).

TABLE VII

SUMMARY OF DISCRIMINATOR SELECTION CRITERION
FOR DISCRIMINANT FUNCTION ANALYSIS
ON DEMOGRAPHIC DATA
N=70

Variable	F* to Enter or Remove	Wilk's lambda	df	Significance
Age of Child	15.45351	.81482	1,68	.000
Sex of Child	4.70549	.76135	2,67	.000
Age of Mother	1.28938	.74677	3,66	.000
No. Years in School	.02620	. .	. .	. .

*(F \geq 1.00)

With the F ratio for each of these three variables meeting the F criterion to enter for further analysis ($F \geq 1.00$), an analysis of the discriminating power of these variables was conducted. The results of the discriminant function analysis are found in Table VIII.

TABLE VIII
DISCRIMINATING POWER OF DISCRIMINANT FUNCTION
FOR DEMOGRAPHIC DATA
N=70

Discriminant Function	Wilk's λ	Chi-Square	df	Significance
1	.7468	19.414	3	.000

Discriminators	Standardized Coefficients	Unstandardized Coefficients
Age of Child	-.63499	-.33910
Sex of Child	.47198	.96268
Age of Mother	-.26505	-.06056

The discriminant function separating the two groups of mothers includes, in order of discriminating power, age of child, sex of child, and age of mother. Years in school contributed relatively little discriminating power after analysis of the first three variables was conducted and therefore, was not included in the function. The standardized coefficients indicate the relative contribution of each discriminator to the overall function, regardless of the

sign of the coefficient. Thus, age of child is considered to have more than twice the discriminating power as age of mother in the separation of the two groups. In combination, however, mother's age and child's age have more than twice the discriminating power of sex of child in the separation of the two groups. Therefore, this discriminant function can be identified by the dominant characteristics of age.

The unstandardized coefficients for each of these discriminators (Table VIII) and a constant (4.27179) were utilized in the computation of a discriminant score for each subject (see Appendix). The discriminant scores obtained for each subject on the function have been plotted to the nearest tenth along a continuum and in relation to group centroids (see Figure 3). The two groups, again, do not clearly separate along the discriminant function continuum. A degree of clustering, however, does exist around group centroids, to the extent that the occurrence of misclassification of some group members is of reduced importance (see Table IX). Based on the significance of the discriminant function and the percentage of cases correctly classified by the discriminant variables, Hypothesis 3 is supported.

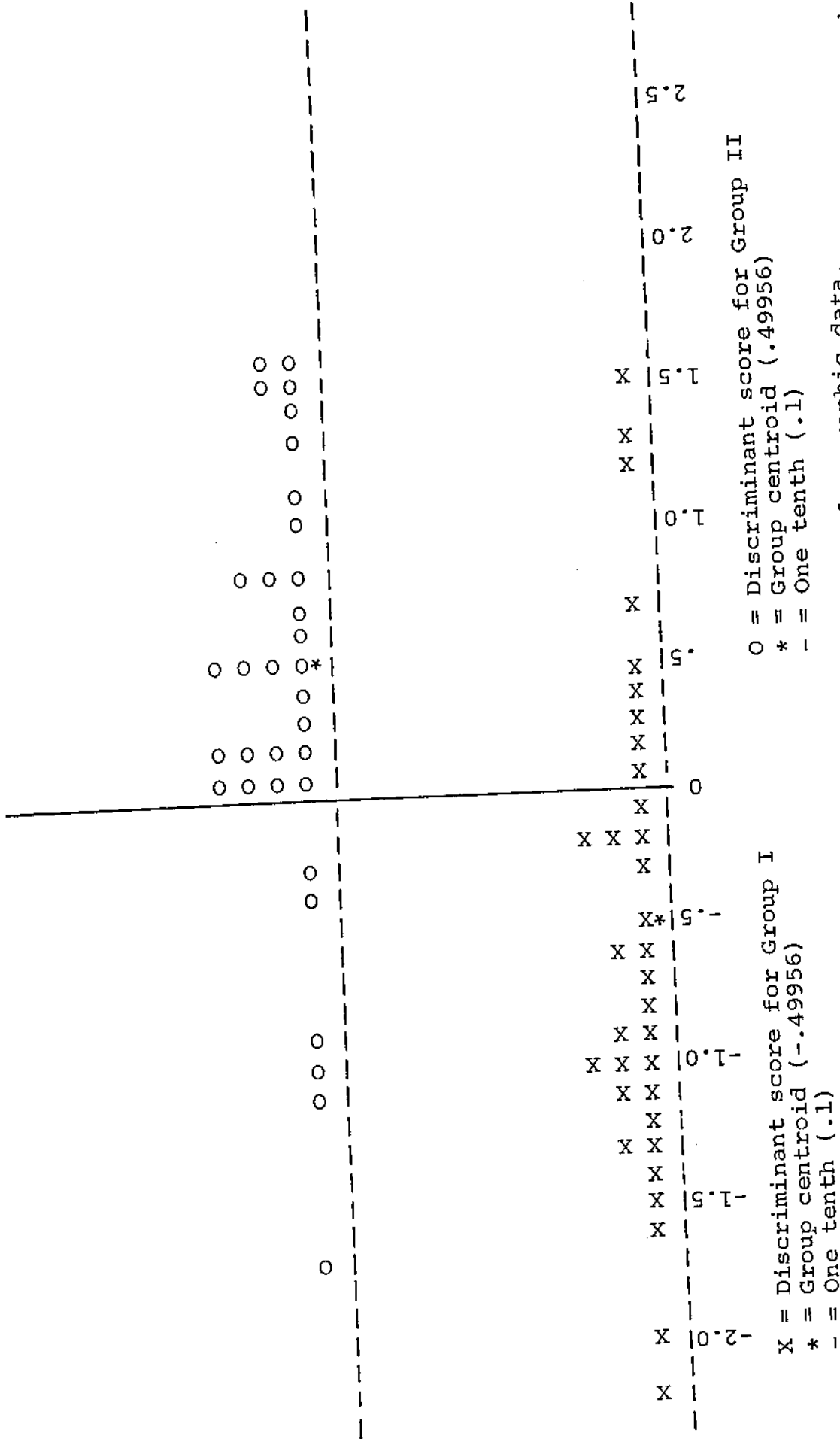


Fig. 3--Plot of Discriminant scores for analysis of demographic data.

TABLE IX
 CLASSIFICATION PERCENTAGES ON DEMOGRAPHIC DATA
 N=70

Actual Group	No. of Cases	Correctly Classified Cases*	Incorrectly Classified Cases
Group I	35	26 74.3%	9 25.7%
Group II	35	27 77.1%	8 22.9%

*75.71 percent of "grouped" cases correctly classified.

Hypothesis 4

Hypothesis 4 stated that there will be significant differences differentiating the group of mothers of children who have learning disabilities (Group I) from the group of mothers of children who do not have learning disabilities (Group II) when attitudes, temperament traits, and variables of age of mother, age of child, sex of child, and number of years child has attended school are examined simultaneously.

In the initial analysis, using all eighteen variables as potential discriminators, five of the variables met the criterion for further analysis. The remaining variables failed to meet the F ratio requirements ($F \geq 1.00$) needed to enter the discriminant function analysis. The variables selected for the analysis included: age of child, sex of child, Restraint, Emotional Stability, and Objectivity (see Table X).

TABLE X
 SUMMARY OF DISCRIMINATOR SELECTION CRITERIA
 FOR DISCRIMINANT FUNCTION ANALYSIS
 ON COMBINED DATA
 N=70

Variable	F* to Enter or Remove	Wilk's lambda	df	Significance
Age of Child	15.45351	.81482	1,68	.000
Sex of Child	4.70549	.76135	2,67	.000
Emotional Stability	3.97298	.71813	3,66	.000
Restraint	1.84605	.69829	4,65	.000
Objectivity	1.00707	.68748	5,64	.000
Age of Mother	.40695	. .	. .	. .
Understanding	.05873	. .	. .	. .
No. Years in School	.08907	. .	. .	. .
Trust	.02502	. .	. .	. .
Confidence	.19932	. .	. .	. .
General Activity	.36735	. .	. .	. .
Causation	.12515	. .	. .	. .
Ascendance	.58995	. .	. .	. .
Acceptance	.02158	. .	. .	. .
Sociability	.95629	. .	. .	. .
Friendliness	.58411	. .	. .	. .
Thoughtfulness	.24217	. .	. .	. .
Personal Relations	.07229	. .	. .	. .

*(F \geq 1.00)

With the F ratio for each of the selected variables meeting the F criterion to be entered for further analysis ($F \geq 1.00$), an analysis of the discriminating power of these variables was conducted. The results of the discriminant function analysis are found in Table XI.

TABLE XI
DISCRIMINATING POWER OF DISCRIMINANT FUNCTION
FOR ALL DATA COMBINED

Discriminant Function	Wilk's λ	Chi-Square	df	Significance
1	.6875	24.545	5	.000

Discriminators	Standardized Coefficients	Unstandardized Coefficients
Age of Child	-.78270	-.41799
Emotional Stability	-.57613	-.09298
Sex of Child	.48518	.98961
Objectivity	.26198	.05851
Restraint	-.24018	-.05672

The discriminant function separating the two groups of mothers includes, in order of discriminating power, age of child, Emotional Stability, sex of child, Objectivity, and Restraint. The remaining variables contributed relatively little discriminating power after the removal of the five selected variables and, therefore, were not included in the function. The standardized coefficients indicate the

relative contribution of each discriminator to the overall function, regardless of the sign of the coefficient. Thus, age of child can be considered to exert more discriminating power to the separation of groups than any of the other selected variables within the function.

The unstandardized coefficients for each of these discriminators (Table XI) and a constant (4.40957) were utilized in the computation of a discriminant score for each subject (see Appendix). The discriminant scores obtained for each subject on the function have been plotted to the nearest tenth along a continuum and in relation to group centroids (see Figure 4). As indicated in Figure 4, the two groups display some overlap along the discriminant function continuum. However, the occurrence of misclassification of some group members is reduced. An analysis of the percentage of correctly classified cases for each group is depicted in Table XII.

TABLE XII
CLASSIFICATION PERCENTAGES ON COMBINED DATA
N=70

Actual Group	No. of Cases	Correctly Classified Cases*	Incorrectly Classified Cases
Group I	35	26 74.3%	9 25.7%
Group II	35	27 77.1%	8 22.9%

*75.71 percent of "grouped" cases correctly classified.

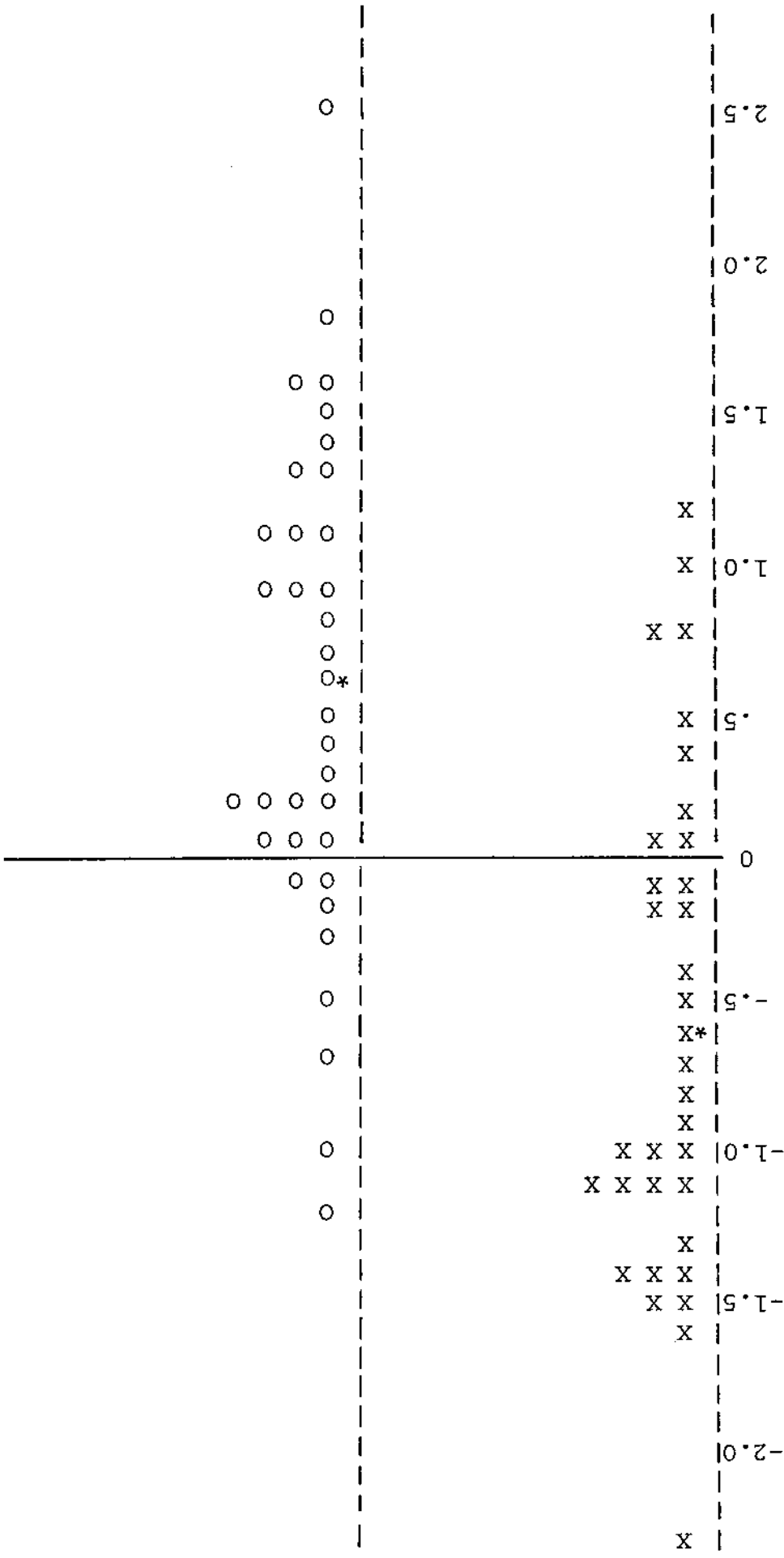


Fig. 4--Plot of discriminant scores for analysis on data selected from combined data as discriminators.

Based on the significance of the discriminant function and the percentage of correctly classified group members, Hypothesis 4 is supported.

Discussion

An examination of the discriminant analysis shows that data did not support Hypothesis 1, which stated that groups would be significantly separated by the variables of maternal attitudes. Data in Tables I, II, III, and Figure 1 show that even though the attitude of Confidence created a significant discriminant function, the two groups exhibited a 40 percent overlap of group members. Although the literature regarding maternal attitudes suggest that maternal attitudes exert a primary influence on children's academic functioning (3, 16, 21, 22, 23, 28), the attitude variables from the HPAS failed to contribute significantly to a separation of groups in this particular study. Therefore, even though attitudes may differ among mothers of children with learning disabilities, the differences did not distinctly separate these mothers from groups of mothers of children who do not have learning disabilities according to the results of this study.

This study does not substantiate the findings that mothers of children with learning disabilities exhibit more negative attitudes than do mothers of children who do not have learning disabilities (1, 2, 17, 18, 22). Group I

attitude scores indicate attitudes which are considered to contribute to academic success for children, therefore, it is possible that these subjects responded to the HPAS as they would like to be viewed rather than as they actually view themselves or as they act or are viewed by others. In addition to perceptual variables, the fact that all participants were volunteers could predispose them to more positive, or ideal, responses.

Hypothesis 2, which stated that the two groups would separate significantly on the temperament trait variables of the GZTS, was not supported. Tables IV, V, VI and Figure 2 show that even though the trait of Ascendance created a significant discriminant function, the two groups were not distinctly different as there was a 49.6 percent overlap of group members. The mean scores for each of the nine scales of the GZTS (see Appendix) indicate that scores for Group I mothers fall between the 50th and 70th centiles with C scores of 5 and 6. These scores would be considered to be within the average or middle range of the GZTS profile. The scores indicate that although there are differences on the individual scores, the differences are not such that they separate one group of mothers from the other.

The participants in Group I of this study failed to support the notion that temperament profiles for mothers of children who have learning disabilities would differ from the norm. The results of this study indicate a profile

within normal limits for both groups of mothers. Neither the Emotional Stability, General Activity, nor Sociability scores fell below the norm and all were higher for Group I members than for Group II members. These findings are in contradiction to the findings regarding mothers of brain damaged, handicapped, or educable mentally retarded children (4, 7, 24). One similarity was found to exist between mothers of children with learning disabilities and mothers of educable mentally retarded children, both had higher scores on the Ascendance scale than did mothers of normal children (24). This finding may indicate a similar need to control children and situations for these two groups of mothers.

Hypothesis 3, which stated that the two groups would separate significantly on the demographic variables of age of mother, age of child, sex of child, and number of years child had been in school, was supported. Tables VII, VIII, IX and Figure 3 show that the variables of child's age, child's sex, and mother's age contributed to a distinct separation of the two groups. Mothers of children who have learning disabilities (Group I) were in their late thirties (38.8), while mothers of children who do not have learning disabilities were in their mid-thirties (36.3). Seventy-seven percent of the children selected by Group I mothers as the "identified child" were boys. In contrast, Group II mothers selected boys as the "identified child" only

46 percent of the time. The children of Group I mothers had a mean age of 10.6 compared to a mean age of 9.0 for the children of Group II mothers.

The fact that 77 percent of the mothers in Group I were reported to have learning disabled boys supports other research which found learning disabilities to be more prevalent in boys than girls (19, 29). The age of the child, which was a significant discriminator, suggests that, in this study, older learning-disabled boys (10.6 years of age) had mothers who had higher scores on the attitude scales measuring acceptance, trust, and the inclination to regard environment as the cause of behavior than did younger children (9.0) who were not learning disabled. This finding does not concur with Hereford's finding regarding the age of a child as a significant factor influencing parental attitudes. Hereford (15) determined that younger children (6, 7, and 8 years of age) had parents who exhibited a greater acceptance and trust for their child and considered environmental factors to be the major influence on a child's behavior. Although both studies report the age of the child to be a significant factor, the studies find the importance to be significant at different age levels.

Hypothesis 4, which stated that a significant separation would occur when all variables were considered simultaneously, was supported. Tables X, XI, XII, and Figure 4 show that the five variables selected as discriminators were

found to make a sufficient contribution to discrimination. This discriminant function indicates that age and sex of the child, when paired with the Emotional Stability, Objectivity, and Restraint scales of the GZTS provide a significant separation of groups.

Mothers of children with learning disabilities (Group I) were found to have learning disabled boys approximately ten and one-half years of age. These mothers obtained scores on each of the three temperament traits which are at the 70th and 55th centiles with C scores of 6 and 5. These findings indicate that mothers of older, learning disabled boys tend to exhibit a stableness of mood (Emotional Stability scale), an ability to empathize with others (Objectivity scale), and an indication of overall emotional maturity as measured by the Restraint scale (13, pp. 15-16). The apparent linear relationship between mother's age, emotional stability, objectivity, and restraint might well reflect that these attributes are acquired with age (14).

The Restraint scale of the GZTS measures restraint with a general indication of overall emotional maturity (14). Group I mothers scored at the 70th centile with a C score of 6 and a mean score of 18.80 while Group II mothers scored slightly above the 60th centile with a C score of 6 and a mean score of 18.26. Although the difference is small, Group I mothers' score is higher on this scale which measures "emotional maturity, responsibility, self-discipline,

organization, seriousness and caution" (13, p. 15), than do Group II mothers. The need to be responsible could suggest a need to be responsible not only for oneself, but for others as well. A need to accept responsibility for one's child has been reported to be present in mothers of children with learning disabilities (4, 5, 27).

The scores on the Emotional Stability scales indicate a stability of mood for both groups with Group I scoring somewhat higher (19.49) than Group II (18.20). This scale tends to predict a stability of moods (13, 14). The difference between mean scores on the Objectivity scale (Group I--19.49, Group II--19.14) for the two groups is minimal. This suggests that, due to the process of the stepwise procedure of the discriminant analysis, the combined effects of other selected variables on the Objectivity trait influences the discrimination more so than the trait of Objectivity itself. It appears that Objectivity becomes a significant discriminator after being paired or combined with the variables of age of child, sex of child, Restraint, or Emotional Stability.

Temperament traits were not found to be significant discriminators when viewed in isolation. This suggests that when temperament traits are considered as the only available discriminators, group members are separated at a level no better than chance. Since discriminate analysis considers the combined effects of a number of variables it was possible

to have factor loadings which were sufficient to aid in discrimination even though the variables had insignificant univariate F tests when considered alone (26). Thus, the variables of Emotional Stability, Objectivity, and Restraint were included when paired with age of child and sex of child, even though these particular temperament traits had not been sufficient discriminators when only GZTS scores were included in a discriminant function.

Unrelated Findings

Based on previous research concerning the influence mothers exert on their children and their children's learning (3, 8, 15, 16, 21, 22, 23, 28) results from this study reveal attitudes among mothers which are considered to be conducive to academic success in children. Scores for the five attitude scales of the HPAS are higher for mothers of children with learning disabilities (Group I) than for mothers of children who do not have learning disabilities (Group II). Both of the groups in this study have higher scores than do any of the groups included in either Hereford's standardization group or his experimental groups (15, p. 102). (See Table XIII.) According to these results, all groups: (1) exhibit confidence in the role of parent; (2) consider a child's behavior as being determined by parent-child interactions, parental behaviors and attitudes, and by environmental influences as opposed to inherited factors;

and (3) value the reciprocal exchange of feelings, ideas, and attitudes. Hereford reported, "Due to the function of the scales on the HPAS a score of 14 or 15 on Causation or Understanding would have about the significance as a score of 6 or 7 on one of the other three scales" (15, p. 102). Therefore, the scores for the participants of this study on the Acceptance and Mutual Trust scales might be higher than would be expected.

TABLE XIII
GROUP MEANS FOR PARENT-ATTITUDE SURVEY

Groups	Group Means Parent-Attitude Survey Scales				
	Confidence	Causation	Acceptance	Understanding	Trust
Group I	7.89	16.00	14.94	18.37	16.20
Group II	5.49	14.31	13.86	17.06	13.89
Hereford's Groups					
Experimental	5.19	13.17	6.89	15.49	7.56
Lecture-Control	5.96	15.59	8.41	16.81	8.95
Non-Attendant	6.80	14.08	7.50	15.49	7.44
Random	6.17	13.68	6.96	14.73	7.47
Standardization	4.56	12.40	6.42	14.44	7.17

The Acceptance scale of the HPAS measures the degree to which a parent experiences acceptance or rejection of the child's behavior and feelings. According to Hereford, a high positive score on the Acceptance scale indicates the completely permissive parent (15). The high Acceptance score could be due to changes in child-rearing practices that have occurred since 1963 when Hereford standardized the HPAS. It is possible, that in an attempt to adjust to a more democratic approach to child-rearing, mothers have become more permissive as they contend with the confusion about the applications of democratic principles (9) while also attempting to develop more positive relations with their children. It can also be considered that the high Acceptance score is an indication of a permissive and inconsistent behavior similar to that observed by Doleys (8) in mothers of children with learning disabilities. Doleys (8) suggested that these behaviors in mothers were a means of compensating for their child's disabilities.

The higher scores received by both groups in this study could also be a result of socioeconomic factors. Hereford stated, "the higher the parents' socioeconomic status, the higher the attitudes scores" (15, p. 106). Although socioeconomic levels were not considered as part of this study, it is possible, since all participants were residents of a suburban area in a North Texas metroplex, the higher scores

received by the two groups are a reflection of a higher socioeconomic status.

Ascendance was the only scale of the GZTS that was selected as a discriminator in the discriminant function with the variables from the GZTS. The results on the Ascendance scale of the GZTS show Group I mothers score slightly higher than Group II mothers. Group I mothers' mean score of 15.89 is at the 70th centile with a C score of 6 while Group II's mean score is 13.74. This score places Group II at the 50th centile with a C score of 5. A high Ascendance score is said to identify "one who must dominate by any available means" (14, p. 290). Although the score for Group I is considered to be within the normal range the score could indicate that Group I mothers exhibit a need to control people and situations. The need to dominate and control is one trait that mothers of handicapped children have been found to exhibit; and the need to control seems to lead these mothers to accept full responsibility for their children's development, learning, and behavior (4, 5, 24, 27). Mothers of children with learning disabilities have been found to deal with their personal frustration, ambivalence, and guilt through control of their children and their children's learning (1, 17, 18, 20).

Unrelated findings concerning birth order indicate that 51.4 percent of Group I mothers responded to the questionnaire using information regarding their youngest child.

In contrast, Group II mothers selected their oldest child as the "identified child" most frequently (57.1 percent). This information might indicate that the youngest child in a family, particularly sons, might be more susceptible to learning difficulties. Since the majority of learning disabled children in this study were found to be the youngest (51.4 percent) or only children (5.7 percent) in the family, it is also possible that mothers who are no longer totally involved with children at home create a child-mother dependency to maintain a bond between themselves and the youngest child (1, 11).

This study failed to identify maternal attitudes toward the child as a significant discriminator of mothers of children with learning disabilities. The extensive research that highlights the role of a mother in determining a child's attitude toward and involvement in school (1, 2, 3, 12, 16, 21, 22, 23, 28) suggests that a mother's involvement in school related activities and her attitudes toward the educational process might have a greater impact on a child's learning (6, 10, 12, 25) than do her attitudes toward the child. It is possible, school counselors could consider special involvement programs as a means of assisting both mother and child in adjusting to the school environment. Education groups, discussion groups, school volunteer programs, and increased consultation with parents might increase involvement and improve acceptance for the educational

processes and thus, improve the academic success of children who are experiencing learning difficulties.

Since age and sex of the child were found to be significant discriminators in both Hypotheses 3 and 4, it is possible, that in future research, these variables should be controlled by matching the children of the participants. By controlling these demographic variables of the child, data concerning mothers could be viewed independently of the influences these variables may exert.

Summary

The results of the discriminant analysis of variables contributing to the distinct separation of a group of mothers whose children have learning disabilities (Group I) from a group of mothers whose children do not have learning disabilities (Group II) showed that age of mother, age of child, sex of child, and the Emotional Stability, Objectivity, and Restraint scores from the GZTS contribute significantly to the specific identification of groups. Even though the discriminant analysis created a distinct division of groups, the scores from the GZTS profile which aided in the separation were within normal limits for both groups. The negligible differences between mean scores (see Appendix) indicate that subsequent research is necessary before attempting to design new approaches to parent education and counseling programs within the schools. Programs

can not alter ages or sex and, although Group I mothers appear to be more emotionally mature, the significance of the differences on the GZTS scales was not tested as a part of this study.

Unrelated findings indicate participants of this study score higher on the attitude scales of the HPAS than the norm. These higher scores may reflect changes in child-rearing approaches, a more permissive society (9), or socioeconomic factors. Information concerning the scales of the GZTS indicates that Group I mothers score higher on Ascendance. This scale measures the need to maintain control of people and situations (13, 14) and may indicate a need to control among mothers of children with learning disabilities. A majority of children of mothers in Group I were found to be the youngest child in the family. This might suggest a dependency that is created between mother and child that results in academic difficulties for the child. Since maternal attitudes failed to identify mothers of children with learning disabilities, it is possible that mothers' attitudes toward school and their involvement in the educational process of the child (16, 22, 28) exert stronger influences on children's academic success than do maternal attitudes toward the child. Considering that age and sex of the child were significant discriminators in this study, controlling for these variables in future research would

allow investigation of maternal variables independent of the influence these child variables may exert.

The fact that Group I was composed of a small, non-random selection of volunteers indicates a need for caution in interpreting the significance of separation between the non-randomly and randomly selected groups. It is possible that the demographic variables which were found to be significant discriminators were a result of the selection process rather than true discriminators of the two groups of mothers used in this study.

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CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

Maternal attitudes, temperament traits, and involvement in school related affairs have all been identified as factors contributing to a child's academic performance. Studies have dealt with identification of attitudes exhibited by mothers of children who have learning disabilities (3, 4, 12, 28). These studies found maternal attitudes of overindulgence, overprotectiveness, permissiveness, rejection, hostility, ambivalence, and indifference to be associated with a child's inability to perform successfully within the academic setting. Several authors have suggested that these negative maternal attitudes deny children the opportunity to develop a personal feeling of worth, a sense of responsibility, or a feeling of control over their own lives (1, 14, 18, 19). This reduced feeling of individuality in children results in academic and behavioral difficulties for them (1, 18, 19).

Research regarding temperament traits suggests that mothers of children who experience difficulties in learning have temperament profiles that differ from the norm (8, 26). These studies indicate that mothers of special groups of

children have lower scores on Emotional Stability, General Activity, and Sociability (4, 8, 26). Higher scores on the Ascendance scale of the GZTS have also been identified with mothers of children who are educable mentally retarded (26). Indications are that mothers of children with learning disabilities could be expected to deviate from the norm.

Mothers' involvement in school affairs has also been found to influence children's attitudes concerning school and subsequently, their academic progress. Mothers who participate in school-related affairs, verbalize a positive acceptance for the educational process and school personnel, and discuss school matters with school staff members, have children who develop positive attitudes toward school, teachers, and the role of student (20, 24). Schools can help provide maternal involvement through parent education groups, consultation, educational programs, parent discussion groups, parent and family counseling, and volunteer programs (5, 6, 7, 9, 10, 11, 13, 14, 15, 16, 17, 21, 22, 23, 25, 27, 29). Mothers who provide a model of cooperative participation with school personnel aid their children in integrating home and school life such that academic progress is improved (7, 16, 20).

This study was concerned with determining if differences existed between a group of mothers of children who have learning disabilities and a group of mothers of children who do not have learning disabilities. The purposes of this

were (1) to determine if differences between a group of mothers of children who have learning disabilities and a group of mothers of children who do not have learning disabilities warranted development of programmatic changes in parent education and new counseling approaches for mothers of children with learning disabilities within the schools and (2) to provide rationale and suggestions for school counselor intervention if the two groups were different enough to substantiate such changes being made.

The subjects who participated in this study were thirty-five mothers whose children were diagnosed as learning disabled and thirty-five mothers who had no children with learning disabilities. All subjects volunteered for the study and completed the attitude and temperament inventories.

Test data consisted of the Hereford Parent-Attitude Survey and nine of the Guilford-Zimmerman Temperament Survey scales (General Activity, Restraint, Ascendance, Sociability, Emotional Stability, Objectivity, Friendliness, Thoughtfulness, and Personal Relations). The subjects also completed an information sheet regarding mother's age, age of child, sex of child, and number of years child had attended school.

Discriminate analysis was employed to test all four hypotheses to determine if the two groups of mothers were distinctly separated. The discriminant variables of attitudes, temperament traits, demographic data, and a

combination of these variables viewed simultaneously were tested with a Wilk's lambda test of significance to determine significant separation. Percentages of correctly classified members was employed to determine the extent of existing overlap among group members.

The discriminant analysis did not support Hypothesis 1, which had hypothesized the existence of a distinct separation with the five variables of the HPAS. The groups were not clearly separated even though the discrimination was statistically significant.

Hypothesis 2 stated that there would be significant separation of groups using the nine scales of the GZTS. The discrimination was statistically significant, but the classification routine was able to correctly identify only 51.4 percent of the cases as members of the groups to which they actually belonged. Hypothesis 2 was not supported due to this overlap.

The discriminant function using demographic data was found to be statistically significant with 78.57 percent of the members correctly classified. Hypothesis 3, which stated that groups would distinctly separate on demographic data was supported with age of mother, age of child, and sex of child identified as the variables contributing most significantly to the separation.

Hypothesis 4, which stated that groups would distinctly separate when all variables were used simultaneously,

resulted in a statistically significant separation of groups and a correct classification of 75.71 percent of the group members. Hypothesis 4 was supported with age of child, sex of child, and the traits of Emotional Stability, Objectivity, and Restraint identified as the variables contributing most significantly to the separation of the two groups.

Findings

The findings of this study indicate that

1. Mother's attitudes do not contribute to distinct separation of the groups studied;
2. Maternal temperament traits do not contribute to the separation of groups in this study except when viewed in combination with age and sex of the child.

Conclusions

Based on the above findings, the following conclusion has been drawn. Programmatic changes in parent education programs or counseling approaches within the schools are not warranted.

Recommendations

1. Since this study examined only the attitudes and temperament traits of mothers as possible factors in relationship to children's learning disabilities, research to determine if fathers of children with learning

disabilities are distinctly different from fathers of children who do not exhibit learning difficulties would add to the existing knowledge concerning children with learning disabilities.

2. The results of this study are not supported by previous research that indicates mothers of learning disabled children possess attitudes and temperament traits which are considered conducive to academic success in children. Therefore, further research to explore the possible relationships between these positive qualities and learning disabilities would provide knowledge concerning how these positive maternal attitudes and temperament traits are related to learning disabilities in children.

3. The scores achieved on the HPAS by participants in this study were considerably higher than those scores achieved by the standardization group. Additional populations might be tested to determine if (1) specific population scores differ from scores received by the norming group; (2) there have been actual changes in attitudes during the years which would result in increased scores; or (3) the scores for the participants of this study are unnaturally high.

4. Additional research concerning maternal attitudes and temperament traits and their relationship to children with learning disabilities should include information regarding previous participation in parent education groups

and individual or family counseling, attitudes toward learning and the school environment, and whether the child attends a public or private school. Matching children of participants on age and sex might eliminate the influence of these variables.

5. Research investigating the mother-child dependency would aid in determining if the dependency is expressed as a learning disability by the child.

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APPENDIX

HANDOUT FOR PARENTS OF LEARNING DISABLED CHILDREN

You have heard about a study being conducted to identify parenting attitudes and temperament traits among mothers of children with learning disabilities for the purpose of determining the feasibility of developing a specific mother-child approach to school counseling. If you are interested in participating in this study and you meet the necessary qualifications, please fill out the attached sheet and return it to me before you leave. Remember, your child must have been enrolled in special classes for the learning disabled for a period of not less than one year and your child must, at this time, be enrolled in an elementary school.

If you are selected to participate, you will be asked to complete an attitude inventory and a temperament survey as well as a personal data sheet. Completion of these tests should take approximately two hours of your time. No names will be used in the collection of data other than now, as participants are selected. Identification numbers will be used at the time the inventories are filled out to protect your anonymity.

You will be contacted by phone if you are chosen to take part in this study. At that time you will be notified of the time and place of data collection.

This study is being conducted by

Sally Kay Shaw, Elementary School Counselor
North Texas State University Doctoral Student

PERSONAL DATA SHEET

Please, do not put your name or the name or names of your children on the attached sheet or the enclosed instruments.

Identification Number: _____

Age of Mother: _____

Age of Learning Disabled Child: _____

Sex of Learning Disabled Child: _____

Number of years your child has been in special classes for the learning disabled: _____

Number of years your child has attended school: _____

Sex and Age of all children in the family:

Sex	Age
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Have any other children in the family been referred for testing, diagnosed for, or placed in special programs for the learning disabled? _____

If so, please identify by sex and age: _____

Are you employed outside the home? Yes _____ No _____

If you are employed outside the home is it full-time _____ or part-time _____?

PERSONAL DATA SHEET

Please, do not put your name or the name or names of your children on the attached sheet or the enclosed instruments.

Identification Number: _____

Age of Mother: _____

Age of Child: _____

Sex of Child: _____

Number of years child has attended school: _____

Sex and Age of all children in the family:

Sex

Age

Are you employed outside the home? Yes _____ No _____

If you are employed outside the home is it full-time _____
 or part-time _____?

REMINDERS TO MOTHERS

Dear _____,

Please, don't forget the meeting at (time), (day), (date),
at (location) for the purpose of collecting the information
concerning maternal attitudes and temperament traits.

I look forward to seeing you and appreciate your
participation.

Thank you,

Sally Shaw

PARENT-ATTITUDE SURVEY

Instructions

On the following pages are a number of statements regarding parents and children. Please indicate your agreement or disagreement with each statement in the following manner:

Strongly Agree	--cross out letter "A"
Agree	--cross out letter "a"
Undecided	--cross out letter "u"
Disagree	--cross out letter "d"
Strongly Disagree	--cross out letter "D"

For example: If you strongly agree with the following statement, you would mark it in this way:

Boys are more active than girls. ~~A~~ a u d D

This survey is concerned only with the attitudes and opinions that parents have; there are no "right" or "wrong" answers. Work just as rapidly as you can--it is your first impression that we are interested in. There is no time limit.

REMEMBER A = Strongly Agree
 a = Agree
 u = Undecided
 d = Disagree
 D = Strongly Disagree

- Parents have to sacrifice everything for their children. A a u d D
- Parents should help children feel they belong and are needed. A a u d D
- Taking care of a small baby is something that no woman should be expected to do all by herself. A a u d D
- When you come right down to it, a child is either good or bad and there's not much you can do about it. A a u d D
- The earlier a child is weaned from its emotional ties to its parents the better it will handle its own problems. A a u d D

6. Most of the time giving advice to children is a waste of time because they either don't take it or don't need it. A a u d D
7. It is hard to let children go and visit people because they might misbehave when parents aren't around. A a u d D
8. Fewer people are doing a good job of child-rearing now than 30 years ago. A a u d D
9. With all a child hears at school and from friends, there's little a parent can do to influence him. A a u d D
10. If a little girls is a tomboy, her mother should try to get her interested in dolls and playing house. A a u d D
11. A child has a right to his own point of view and ought to be allowed to express it, just as parents express theirs. A a u d D
12. If children are quiet for a while you should immediately find out why. A a u d D
13. It's a rare parent who can be even-tempered with the children all day. A a u d D
14. Psychologists now know that what a child is born with determines the kind of person he becomes. A a u d D
15. One reason that it is sad to see children grow up is because they need you more when they are babies. A a u d D
16. The trouble with trying to understand children's problems is they usually just make up a lot of stories to keep you interested. A a u d D
17. A mother has a right to know everything going on in her child's life because her child is a part of her. A a u d D
18. Most parents aren't sure what is the best way to bring up children. A a u d D

19. A child may learn to be a juvenile delinquent from playing games like cops and robbers and war too much. A a u d D
20. There is no reason why a child should not learn to keep his clothes clean very early in life. A a u d D
21. If a parent sees that a child is right and the parent is wrong, they should admit it and try to do something about it. A a u d D
22. A child should be allowed to try out what it can do at times without the parents watching. A a u d D
23. It's hard to know what to do when a child is afraid of something that won't hurt him. A a u d D
24. Most all children are just the same at birth; it's what happens to them afterwards that is important. A a u d D
25. Playing with a baby too much should be avoided since it excites them and they won't sleep. A a u d D
26. Children shouldn't be asked to do all the compromising without a chance to express their side of things. A a u d D
27. Parents should make it their business to know everything their children are thinking. A a u d D
28. Raising children isn't as hard as most parents let on. A a u d D
29. There are many things that influence a young child that parents don't understand and can't do anything about. A a u d D
30. A child who wants too much affection may become a "softie" if it is given to him. A a u d D
31. Family life would be happier if parents made children feel they were free to say what they think about anything. A a u d D

32. Children must be told exactly what to do and how to do it or they will make mistakes. A a u d D
33. Parents sacrifice most of their fun for their children. A a u d D
34. Many times parents are punished for their own sins through the bad behavior of their children. A a u d D
35. If you put too many restrictions on a child, you will stunt his personality. A a u d D
36. Most children's fears are so unreasonable it only makes things worse to let the child talk about them. A a u d D
37. It is hard to know when to let boys and girls play together when they can't be seen. A a u d D
38. I feel I am faced with more problems than most parents. A a u d D
39. Most of the bad traits children have (like nervousness or bad temper) are inherited. A a u d D
40. A child who misbehaves should be made to feel guilty and ashamed of himself. A a u d D
41. Family conferences, which include the children, don't usually accomplish much. A a u d D
42. It's a parent's duty to make sure he knows a child's innermost thoughts. A a u d D
43. It's hard to know whether to be playful rather than dignified with children. A a u d D
44. A child that comes from bad stock doesn't have much chance of amounting to anything. A a u d D
45. A child should be weaned away from the bottle or breast as soon as possible. A a u d D
46. There's a lot of truth in the saying, "Children should be seen and not heard." A a u d D

47. If rules are not closely enforced, children will misbehave and get into trouble. A a u d D
48. Children don't realize that it mainly takes suffering to be a good parent. A a u d D
49. Some children are so naturally head-strong that a parent can't really do much about them. A a u d D
50. One thing I cannot stand is a child's constantly wanting to be held. A a u d D
51. A child's ideas should be seriously considered in making family decisions. A a u d D
52. More parents should make it their job to know everything their child is doing. A a u d D
53. Few parents have to face the problems I find with my children. A a u d D
54. Why children behave the way they do is too much for anyone to figure out. A a u d D
55. When a boy is cowardly, he should be forced to try things he is afraid of. A a u d D
56. If you let children talk about their troubles they end up complaining even more. A a u d D
57. An alert parent should try to learn all his child's thoughts. A a u d D
58. It's hard to know when to make a rule and stick by it. A a u d D
59. Not even psychologists understand exactly why children act the way they do. A a u d D
60. Children should be toilet-trained at the earliest possible time. A a u d D
61. A child should always accept the decision of his parents. A a u d D
62. Children have a right to activities which do not include their parents. A a u d D

63. A parent has to suffer much and say little. A a u d D
64. If a child is born bad there's not much you can do about it. A a u d D
65. There's no acceptable excuse for a child hitting another child. A a u d D
66. Children should have a share in making family decisions just as the grown-ups do. A a u d D
67. Children who are not watched will get in trouble. A a u d D
68. It's hard to know what healthy sex ideas are. A a u d D
69. A child is destined to be a certain kind of person no matter what the parents do. A a u d D
70. It's a parent's right to refuse to put up with a child's annoyances. A a u d D
71. Talking with a child about his fears most often makes the fear look more important than it is. A a u d D
72. Children have no right to keep anything from their parents. A a u d D
73. Raising children is a nerve-wracking job. A a u d D
74. Some children are just naturally bad. A a u d D
75. A child should be taught to avoid fighting no matter what happens. A a u d D
76. Children don't try to understand their parents. A a u d D
77. A child should never keep a secret from his parents. A a u d D

RECORD SHEET

Confidence	Causation	Acceptance	Understanding	Trust
3	4	5	6	7
8	9	10	11	12
13	14	15	16	17
18	19	20	21	22
23	24	25	26	27
28	29	30	31	32
33	34	35	36	37
38	39	40	41	42
43	44	45	46	47
48	49	50	51	52
53	54	55	56	57
58	59	60	61	62
63	64	65	66	67
68	69	70	71	72
73	74	75	76	77
Total	Total	Total	Total	Total
G		R		A
S		E		O
F		T		P

TABLE XIV

DESCRIPTION OF GROUP MEMBERS AND THEIR CHILDREN
SHOWING DEMOGRAPHIC CHARACTERISTICS

Groups	I	II
Age of Mother		
28	1	0
30	1	0
31	0	1
32	1	4
33	1	3
34	1	7
35	4	3
36	2	2
37	3	3
38	2	3
39	3	3
40	4	1
41	3	1
42	2	1
43	1	1
44	1	1
45	3	0
46	1	1
49	1	0
Age of Child		
6	0	4
7	0	2
8	3	8
9	7	6
10	6	6
11	8	7
12	9	2
14	2	0
Sex of Child		
Male	27 [77.1%]	16 [46%]
Female	8 [22.9%]	19 [54%]
No. Years in School		
1	0	2
2	0	4
3	2	6
4	7	4
5	7	6
6	9	8
7	10	5

TABLE XIV--Continued

Groups	I	II
Child's Place in Family		
Oldest	11 [31.4%]	20 [57.1%]
Middle	4 [11.4%]	3 [8.6%]
Youngest	18 [51.4%]	8 [22.9%]
Only	2 [5.7%]	4 [11.4%]

TABLE XV
 MEANS AND STANDARD DEVIATIONS
 FOR GROUP I AND GROUP II
 N=70

Variables	Group I Means	Group I SD	Group II Means	Group II SD
Age of Mother	38.8000	4.6388	36.2571	3.7444
Age of Child	10.6286	1.5920	9.0286	1.8066
Sex of Child	1.2286	.4260	1.5429	.5054
No. Yrs. in School	5.6286	1.3951	4.3714	1.8001
Confidence	7.8857	5.9792	5.4857	6.7666
Causation	16.0000	5.1105	14.3143	4.7451
Acceptance	14.9429	4.9226	13.8571	4.4993
Understanding	18.3714	5.5205	17.0571	5.0582
Mutual Trust	16.2000	8.2098	13.8857	5.2231
Gen. Activity	17.7428	5.9129	15.5429	7.3579
Restraint	18.8000	3.9169	18.2571	4.5719
Ascendance	15.8857	6.1202	13.7429	4.6926
Sociability	20.1429	6.7743	17.7143	5.9189
Emotional Stability	19.4857	6.6394	18.2000	5.7436
Objectivity	19.4857	4.7982	19.1429	4.1949
Friendliness	17.9143	4.8651	17.5714	4.9127
Thoughtfulness	18.1714	5.2384	17.1429	3.6230
Personal Relations	18.8857	5.8449	18.8000	4.8738

DISCRIMINANT SCORES WITH CONFIDENCE AS DISCRIMINATOR
N=70

<u>Group I</u>	<u>Group II</u>
.669	.514
-0.416	-0.726
-2.296	.514
1.443	-0.106
-0.571	-0.416
.669	-0.726
-0.106	-0.571
-0.881	.204
.669	.049
-0.416	-1.036
.514	-0.106
.359	.514
.514	-0.571
-0.106	-1.656
.979	-1.036
1.598	-1.501
-0.881	1.288
-1.191	.669
.049	-0.726
1.443	-0.106
-1.191	1.598
-0.416	.204
1.908	-1.191
.049	2.218
.049	-1.501
.514	-0.571
1.443	-0.571
1.134	.514
.824	.204
.049	1.288
-0.726	1.753
.669	-2.431
-0.571	-1.656
-0.261	-0.726
.979	-0.106

DISCRIMINANT SCORES WITH ASCENDANCE AS DISCRIMINATOR
N=70

<u>Group I</u>	<u>Group II</u>
-1.053	.215
1.483	-0.510
-1.234	-0.329
-1.416	-1.234
.034	-0.510
.215	-1.053
.396	.034
-0.510	-1.597
2.389	-0.872
-0.872	.215
-0.872	-0.510
-0.329	.034
1.121	.396
-0.148	2.207
-0.148	1.121
.577	-0.510
-0.148	.215
1.483	-0.329
.872	-1.234
1.664	.396
.215	-0.691
-1.053	.215
.758	.396
.034	.939
2.751	-0.148
.939	.034
1.302	.034
1.302	-0.329
.577	-1.597
.939	.215
-2.140	.577
.939	-2.321
-0.329	.215
-0.510	.215
-0.691	-0.691

DISCRIMINANT SCORES WITH AGE OF CHILD, SEX OF CHILD,
 AGE OF MOTHER AS DISCRIMINATORS
 N=70

<u>Group I</u>	<u>Group II</u>
.723	1.607
-1.221	-0.276
-1.621	.123
-0.337	1.486
-1.996	.287
-0.761	1.262
.160	.202
.487	.462
-1.318	.244
-0.162	-0.821
-1.354	.462
-0.597	.626
-0.858	1.365
-0.918	-0.434
-0.016	1.486
-0.737	.408
1.328	.505
-1.257	.802
1.207	.523
-0.458	.044
.347	.959
-1.039	.123
.402	1.619
-0.579	.226
-1.015	1.704
-1.039	1.122
-2.238	2.200
.063	.123
-0.216	-0.979
-1.136	-0.858
-1.500	.844
-0.058	.686
1.486	.190
-1.076	.783
-0.179	-1.621

DISCRIMINANT SCORES WITH AGE OF CHILD, EMOTIONAL
 STABILITY, SEX OF CHILD, OBJECTIVITY,
 AND RESTRAINT AS DISCRIMINATORS
 N=70

<u>Group I</u>	<u>Group II</u>
.472	1.351
-1.139	-0.743
-0.923	.241
-0.232	1.115
-1.405	.141
-0.619	1.114
.244	.826
-0.734	-0.240
-1.626	.062
.098	.538
-1.108	.076
-1.510	1.265
-1.001	1.347
-1.275	-0.061
-0.787	1.629
-1.131	.378
.844	.191
-0.512	1.509
.951	.586
-0.420	.673
1.155	1.140
-1.093	-0.971
.407	1.619
-0.040	-0.528
-1.493	.887
-0.980	.926
-2.299	2.506
-0.087	.281
-0.131	-0.266
-1.376	-0.122
-1.305	.218
.065	1.840
.799	.191
-0.992	.941
-0.243	-1.230

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