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Development of a questionnaire to assess facilitating processes in the families of children with learning disability

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DEVELOPMENT OF A QUESTIONNAIRE TO ASSESS FACILITATING PROCESSES IN THE FAMILIES OF CHILDREN WITH LEARNING DISABILITY

by

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Abstract

DEVELOPMENT OF A QUESTIONNAIRE TO ASSESS
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Adviser: Professor Barry Zimmerman

Based on the structural model of the family, four family processes were identified, and a questionnaire was developed to assess the facilitating processes of families with learning disabled children. The proposed research aimed to validate this instrument. The proposed instrument, termed as "The Family Process Questionnaire" (FPQ) was given to 120 families of children classified as perceptually impaired varying in age from 10 to 15 years. The questionnaire was validated using various measures of adjustment of learning disabled children. Academic adjustment was measured using scores on California achievement tests (CAT), and grade point average (GPA) in reading and math. Learning disabled children's socio-emotional adjustment was assessed by: 1) The Piers Harris Self Concept Scale (Piers 1969); and 2) Teacher Report Form (TRF) (Achenbach & Edelbrock, 1986). Coefficient alpha was

used to determine the reliability of the instrument. Multiple Regression Analyses and Path Analyses were performed to address the specific hypotheses. It was hypothesized that the four family processes identified (acceptance, support, cohesiveness and ability to solve problems) would correlate positively with each dependent measure. The family's ability to solve problems was hypothesized to be most predictive of the academic functioning, and family cohesiveness was expected to be most predictive of overall academic and socio-emotional functioning. The resulting data indicated that the family processes as a group did not positively correlate to each measure of academic functioning. However, they did correlate positively with each measure of socio-emotional functioning. Family support, and not the ability to solve problems, was the most predictive of the academic functioning. Similarly, family support and not cohesiveness was most predictive of overall academic and socio-emotional functioning. The results of Path Analysis revealed that while the family support directly influenced the academic and socio-emotional functioning, it was influenced structurally by the other three family

processes. These results confirmed Minuchin's assumption that these family processes are interrelated yet distinct. The results further indicated that even though family support has a direct influence on the learning disabled child's academic and emotional functioning, it depends on the cohesive structure in the family, a process indicating acceptance of the youngster's disability and related difficulties.

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Chapter I

Introduction

"Learning disability" is the general term that has been applied to a variety of specific problems in learning. The psychological adjustment and optimal functioning of learning disabled children continues to be a major concern of educational and school psychologists.

Research in the field of learning disabilities has come from the disciplines of medicine, education, and psychology. To date, there has been little agreement concerning the etiology, assessment, diagnosis and treatment of learning disabilities among these various disciplines. However, there is increasing recognition and acceptance of several general facts: Learning disabled children suffer not only from academic problems, but also from social problems which are influenced by family relationships. If left untreated, these social problems will continue after these youngsters leave the academic environment of the school, (Kronick, 1981; Osman, 1982; Silver, 1984).

School psychologists have long recognized the important role of parents and other family members in the adjustment of handicapped children. For example,

Edgarly (1975) and Shapero and Forbes,(1981) have reviewed the data on learning disabled children and their families and have established the importance of a family's system of support. These researchers found that remedial and therapeutic approaches which actively involved parents are much more successful than those that do not. Although the general importance of family support in the adjustment of learning disabled children has been widely discussed, little empirical data are presently available covering specific processes. To date there exists no reliable or valid means of identifying key family processes that are related to the adjustment of learning disabled children (Faerstein, 1981; Senf, 1978). Although professionals have become aware that familial processes are influential, there is a gap in knowledge concerning what specific familial processes may influence the learning disabled child positively.

The concept of a family as a system and as a focus of therapy have led to structural and interactional analyses of family functioning. Minuchin (1974), a family therapist, has developed a particularly influential model of normal family functioning. He outlines structural and interactional variables which are characteristic of families that solve problems effectively. The family processes of acceptance, support,

cohesiveness and ability to solve problems were identified as particularly important. Minuchin's research has focused on studying dysfunctional processes of families of children with asthma, diabetes, and anorexia nervosa. Few, if any, efforts have been made to see if the processes he identified are important in families with learning disabled children. The proposed investigation seeks to assess Minuchin's processes in the families of learning disabled children through the development and utilization of a questionnaire. The resulting data are expected to provide answers to the following question: Are Minuchin's family processes related to academic and socio-emotional functioning of the learning disabled child?

1 Chapter II

Review of the Literature

Learning Disability and Its Impact on the Child

Definition and Diagnosis. The nature of learning disabilities, their diagnosis, and therapy have been widely described for school age children (Connolly, 1971; Knight & Bakker, 1976; Roureke, 1985). Most definitions of learning disabilities imply some selective central nervous systems dysfunction that is responsible for substandard academic, socio-emotional, and behavioral function. At the present time, diagnosis of learning disabilities is based formally on two criteria: (1) the inadequate academic functioning of the child, and (2) the exclusion of other obvious causes of learning disorders such as mental retardation, sensory deficits, obvious neurologic disorders and recognizable emotional disturbances must be ruled out. Less formally, a "learning disability" is defined as a disorder in one or more basic psychological processes involved in understanding or in using spoken or written language. These include disorders of thinking, talking, reading, writing, spelling, or arithmetic. Various causes of learning disabilities have been suggested such as brain injury, minimal brain dysfunc-

tion, developmental dyslexia, and developmental aphasia. From this description, it is clear that children with learning disabilities form a heterogenous group. Even though each learning disabled child is unique, certain common problems and deficits have been observed and can be defined.

Cognitive-Information Processing Deficits Associated with Learning Disabilities. A large number of learning disabled children are reported to experience hyperactivity, lack of impulse control and a short attention span (Paine, 1965). However, most children with learning disabilities also suffer from one or more of the information processing difficulties or deficits.

Many learning disabled children have input difficulties in visual perception (for example, confusing b for d), in auditory perception, or in both visual and auditory modalities. Integrating sequential information may also be deficient. Memory may be impaired on a long-term or short-term basis and may not be limited to a single perceptual modality. Finally, output difficulties may occur that are manifested in language or motor problems. Needless to say, children with learning disabilities experience problems in information processing that their normal classmates do not. Learning disabled children also experience difficulties

in physical activities requiring gross or fine motor coordination which often affect their capabilities in athletics.

Emotional problems associated with learning disabilities. A variety of emotional problems has been reported to be associated with learning disabilities in children. Gardner (1971) has described a series of debilitating psychological reactions by children with learning disabilities. These reactions include: fear, withdrawal, regression, neurotic utilization of organic symptoms, perseveration, clowning and low self esteem. Rappaport (1973) believes that children with an attention deficit disorder experience ego functioning disturbances that interfere with their maternal relationship. This may result from these children's early inappropriate responses to their mother and may lead to lack of maternal confidence. The mother's awareness that something is wrong with her child may lead to either withdrawal from or overprotection of her offspring. Either reaction may lead the child to develop low self esteem.

According to Rappaport, children deal with impaired self esteem by using a variety of defenses, the most common being withdrawal. A child may refuse to try anything new, resulting in a diminished repertoire of behavior and interests. He or she may function at a

more immature level by playing games with younger children. Overcompensation may occur in the form of bullying and aggression. Denial, often supported by the family, is quite common among learning disabled children. This may take the form of blaming either the teachers or the school. Clowning can be another defense because it distracts others from the child's real problems. Somatization (tiredness) is also frequent. The combination of avoidance and somatization often leads these children to refuse to attend school. Zigler (1981) theorized the consequences of mismatches between the children with learning disabilities and educational inputs. He suggested that if the children with learning disabilities are not identified early, they may develop fear reactions to any new learning material because they expect to fail. If this reaction is allowed to persist, such children may become more disengaged, may prove difficult to reach by the regular classroom teacher, and may ultimately need additional counseling. During adolescence, children may react to their learning disabilities with denial and negativism. From a teacher's perspective these youngsters appear to accept little or no responsibility. Although this interpretation comes primarily from clinical observation and from theory, there are some empirical data which also suggest the presence of low self esteem

and self defeating beliefs among children with learning disabilities (Chapman & Boersma, 1979; Fincham, Barling, 1978; Hallahan, Gajjar, Cohen, Taver, 1978; Pearl, Bryan & Donahue, 1980).

Social skills deficits associated with learning disabilities. Peer relationships and social interactions of learning disabled children have been a frequent subject of study. Shumaker and Hazel (1984) reviewed the literature focusing on the social skills deficits of learning disabled individuals. According to their review, learning disabled children exhibit deficits in a variety of social skills. Compared to their non-handicapped peers, learning disabled children tend to display less socially acceptable behaviors; they misinterpret social cues more often; they adapt their behavior to the characteristics of their listener less frequently; they perform certain verbal and non-verbal social skills at significantly lower levels; and they perform certain inappropriate social behaviors at significantly higher levels.

In summary, these findings indicate that children with learning disabilities often suffer from a variety of cognitive deficits which negatively affect their academic achievement and social functioning. In addition, these children experience a large number of emotional problems. However, several questions remain:

Do all children with learning disabilities develop these social and emotional problems? Are there some naturally occurring factors in the home environments or processes within the families of some learning disabled children that counteract these problems?

Importance of The Family

In a longitudinal study, Hartzell and Compton (1984) have identified some important family factors. These authors followed 114 learning disabled students and their 144 non-learning disabled siblings for 10 years. Through questionnaires and telephone interviews, these researchers gathered information on academic achievement, social success and other related variables of learning disabled individuals and their non-learning disabled siblings. The students were high in socio-economic status (SES), had highly educated parents and received a wide variety of special services. The data on the children's academic and psycho-social functioning were gathered from the school records. Family functioning was measured using a three-point scale indicating the quality of the family functioning at the time of evaluation. Families were rated either: low--if the family life was chaotic and highly stressful, average--if the family had some problems, but was coping effectively, or high--if the family was cohesive, supportive, and effective.

Additional measures of family support were judged from follow-up data by two independent raters. Family support was considered either positive (in the interest of the child) or negative (at cross purposes to the interest of the child). Although this study did not involve specific treatment of the children, the majority of the children studied (68%) received positive family support. Throughout the 10 year period, all the children attended a wide variety of public schools and special private schools.

Each of the learning disabled students was compared to a non-learning disabled sibling. Significantly lower levels of school attainment, academic success and social success were found for the learning disabled group. Using stepwise multiple regression techniques, Hartzell and Compton sought to discover which variables at the time of evaluation were most predictive of academic, social, and job success 10 years later. Two variables, family functioning and IQ, were the most predictive of academic success. IQ and psychosocial functioning of the child proved to be the best predictors of social success. The authors concluded that a successful adjustment is most likely when learning disabled children have high IQs, positive personalities, and when their families function in a supportive way. In view of this recent study, it

appears that family processes are very important in the adjustment and success of the learning disabled child.

Recognizing the importance of family to the development of a child is hardly new. The impact of parental attitudes and child rearing methods on the development and subsequent adjustment of the child has been a focus of research for a long time. Initially, the data were retrospective and gathered from clinical files (Levy, 1943; Symond, 1939). However, more recent data were derived from structured home visits (Baldwin, Kalhom & Breese, 1949; Baumrind, 1968, 1971; Sear, Maccoby & Levin, 1957). Most of the early research focused on the deleterious effects of handicapped children on their parents (Cummings, 1976). Studies conducted during the 1940's and 1950's began to focus on the role of parents in the development of abnormal traits in their offspring. Terms such as "pathogenic mother" and "inadequate father" were frequently used to describe counterproductive or ineffective parents.

In the late 1950's, researchers began to consider the handicapped individual as part of a larger social milieu. Soon afterward, the family therapy movement emerged. This movement reflected an increase in recognition of the family as a basic unit of human functioning. It also focused attention on the family as essential to the psychological growth of its mem-

bers. At the present time, the family system point of view is widely recognized by both researchers and practitioners. Family dynamics and interactions are seen as having important effects on handicapped family members. For instance, the parents' inability to adjust to their children's handicap is assumed to intensify the effects of these handicaps. Conversely, positive coping processes by the family of learning disabled children is assumed to diminish the effects of these handicaps.

Systems perspective of the family, its underlying assumptions and their application to the family with a learning disabled child

Family systems theorists conceptualize the family as an open system that functions in a broader socio-cultural context. A system is closed if there is no effect of outside forces that compel changes in the system's components. An example of a closed system would be a chemical reaction taking placed in a sealed container. However, a family operates in an influential socio-cultural context. The family continuously exchanges materials, energies or information with the large social environment. There are, however, predictable internal and external procesess occurring within the family. When viewed as a system, families operate

according to well known rules and principles (Von Bertalanffy, 1968).

Among the properties of open systems are wholeness, feedback, and equifinality (Watzlawick, Beavin, Jackson, 1967). The "wholeness property" of the family system suggests that the family is not simply a collection of individuals, but rather is more than the sum of its parts. It is an integrated body that behaves as an irreducible unit. Open systems are regulated in part by external feedback: Inputs from the environment are acted upon and modified by the family as a system. Due to the wholeness property and feedback mechanism, every unit in the system (a person) is related to other parts (other family members) in such a way that a change in one will be complemented by a change in others. This process is identified by Ackerman (1958) as a "reverberation effect". Therefore the actions of one member can and often does create a chain reaction. Equifinality means that the same result may be reached from different beginnings (Von Bertalanffy, 1968). In open systems, different initial conditions may yield the same final result and different results may be produced from the same initial "causes". This implies that the family organization and subsequent reactions may be more important than the initial cause or the origin of the problem that the

family faces. Thus in one family, a member may be disabled while another family rallies in response to the same crisis.

From this view of family as a system, it is assumed that:

1. Having a learning disability in a child will affect not only the child, but also each of the other family members.

2. The family's reaction and feedback to learning disabled children will greatly influence how they will perceive their disability.

3. Family organization and interaction are more important in assessing the impact of a learning disability on the child rather than the initial causes or severity of the learning disability. It is argued that even a mild form of disability can be problematic if family organizational and interactional processes are not supportive.

Walsh (1982) states that given the circular nature of causality, the family's response to the individual's distress will be an important factor in the readjustment or recovery of individual symptom bearers regardless of the origin of symptoms. Dysfunctional family systems tend to maintain or reinforce the symptoms in on-going interactional processes.

Several family therapy approaches and theories about children's functioning have been developed based on the systems model. Family therapists are mostly practitioners who emphasize application and internal explanation rather than operational definition and formal testing. As a result, many approaches which appear to share the same concept labels actually ascribe different meanings to them. Furthermore, many of the concepts and assumptions used by family therapists are often implicit and unstated (Nicholas, 1984). Riskin (1982) stated that the field of family therapy is noticeably weak in concepts and hypotheses that can be operationalized and subjected to empirical tests. One of the most clearly articulated approaches in family therapy has been developed by Minuchin (1974). He provides a more detailed basis for analyzing family interaction processes (Nicholas, 1984) and for this reason, Minuchin's structural theory of the family will be used to guide the present study.

The following review of literature will be organized in 3 sections: 1) the first section will present the family model developed by Minuchin (1974); 2) the second section will describe research based on a systems model of the family that deals with families of learning disabled children; and 3) the third section

will discuss the research on family processes which have been delineated by Minuchin.

A Structural Model Of the Family

Minuchin conceives the family as an open socio-cultural system, which goes through several developmental stages depending upon the ages and needs of its members. As the family moves through these developmental stages, it must restructure itself. The family also must adapt to changed external circumstances in order to maintain continuity and enhance the psycho-social growth of each member. Minuchin formulated this model based on clinical interviews with effectively functioning families. His model not only describes the main functions of the family, it also describes a structure which is conducive to the family functioning. Finally, his model postulates that families have inherent capabilities to adapt, however, when families do not adapt, dysfunctional patterns or pathology arise. Based on this conceptual schema, the three main components of his model are described below:

A) Matrix of identity

B) Family structure

C) Family adaptation

Minuchin has expanded and elaborated on the last two components of his model (i.e. family structure, and family adaptation). The first component of his model,

which has received relatively little study to date, seems valuable as a framework for mapping functional processes of the family.

The Matrix of Identity

"Human experience of identity has two elements: a sense of belonging and a sense of being separate. The laboratory in which these ingredients are mixed and dispensed is the family, the matrix of identity" (Minuchin, 1974, p. 47).

By sense of belonging, Minuchin means a child's a) accommodation to his/her family and b) understanding of the transactional patterns in the family that remain consistent throughout different life events. In the case of the learning disabled child, the youngster will develop a sense of belonging if he or she is accepted as a member of the family (ie., not rejected or overprotected), but treated like any other member of the family. Acceptance of the child is believed to promote a sense of belonging.

The sense of separateness and autonomy, on the other hand, is promoted by the accommodation of the family to the child's individual needs. The child learns this sense of separateness by participating in different subsystems in the family context as well as through participation in extra-familial groups. Minuchin's theory implies that learning disabled child-

ren who experience cognitive and behavioral deficits require more accommodation and support from other family members in order to have a sense of separateness and autonomy.

Thus the basic structure of the family provides a matrix from which children form their identities. Through acceptance and promotion of autonomy of the child, the family fulfills this need. What specific roles are given, expected, or needed by family members depends upon the developmental stages of the family (Carter and McGoldrick, 1980). What is required for parenting a 2-year-old, may be totally inadequate for a 5-year-old or a 14-year-old. What do the families of learning disabled children do specifically to promote their acceptance and autonomy? Does the presence of supportive processes lead to better cognitive and socio-emotional functioning in the child?

Family structure

Family structure pertains to the organization of the family which encompasses internal hierarchies, roles, and responsibilities of each member. Minuchin has focused particular attention on the internal structure of the family. He defines a family structure as an invisible set of functional demands that organize the ways in which family members interact (Minuchin, 1974, p. 51). A family is a system that operates

through transactional patterns. Repeated transactions establish patterns of how, when, and to whom family members relate. These patterns underpin the system. For instance, when a mother tells her child to put his shoes away and he obeys, this interaction defines who she is in relation to him and who he is in relation to her, in that context, at that time. Recurrent interpersonal behavior constitute a transactional pattern.

In most families these transactional patterns are established by two systems of constraint. Minuchin describes the first of these rules as generic, involving the universal rules governing family organization. For instance, one generic rule posits that there should be a power hierarchy in the family in which parents and children have different levels of authority. This rule also posits that parents function as partners who accept interdependency and operate as a team. If this generic rule is broken it is assumed that there are systemic problems, and the family is rendered ineffective. The second system of constraint is idiosyncratic and applies to the need of a particular family. It is developed out of mutual needs and expectations of particular family members for mutual accommodation and functional effectiveness. The presence of a learning disabled child puts unusual constraints on the family.

Minuchin introduces concepts of subsystems and boundaries as essential components of family structure.

Subsystems. Families are differentiated into subsystems of members who join together to perform various functions. Individuals can form subsystems within their family. Dyads such as husband-wife or mother-child can be subsystems. Subsystems can be formed by age, gender, or common interests. An individual may belong to more than one subsystem. In each, he/she may have different levels of power and roles. A man can be a son, husband, father, older brother, younger brother, nephew, and so on. In each subsystem, he enters into different complementary relationships. Minuchin states that the subsystem organization of a family provides valuable training in the process of maintaining the differentiated "I am" while exercising interpersonal skills at different levels.

Boundaries. Minuchin theorized that individuals, subsystems and whole families are demarcated by interpersonal boundaries. The boundaries of a subsystem are defined by the rules about who participates and how. For example, the boundary of a parental subsystem is defined when a mother (M) tells her older child, "You

are not your sister's parent. If she is taking cookies without asking, tell me and I'll stop her.

If the parental subsystem includes a parental child (a child who is given a temporary parental power), the boundary is defined by the father's telling the children "At the mall your brother is in charge, until your mom and I join you".

Minuchin theorizes that the function of boundaries is to preserve the differentiation of the system. Different subsystems in the family have specific functions and make specific demands on its members, and the development of different interpersonal skills achieved in these subsystems is dependent upon the subsystem's freedom from interference from other subsystems. For example, the development of skill for negotiating with peers, learned among siblings, requires that parents don't interfere in the siblings' relationships. Minuchin claims that for proper family functioning, the boundaries of subsystems must be clear. They must be defined well enough to allow subsystem members to carry out their functions without undue interference. Minuchin uses clarity of boundaries within a family as a parameter to evaluate the family functioning.

In families, interpersonal boundaries vary from being rigid to diffuse. Rigid boundaries are overly restrictive and allow little contact between systems or outside the system, resulting in disengagement. Minuchin theorizes that disengaged individuals or subsystems are relatively isolated and autonomous. On the positive side, parental disengagement allows greater independence, self reliance, growth and mastery by children. For instance, if parents do not hover over their children, telling them what to do or fighting their battles, then these children will be forced to develop their own resources. On the other hand, in families with extremely disengaged boundaries, a subsystem may mobilize mutual support only under extreme stress. If parents are disengaged from their child, they will be slow to notice and react when the child is experiencing trouble and needs support or guidance.

In those families where the interpersonal boundaries are diffuse, subsystems become <u>enmeshed</u>. In such families, help and support is offered abundantly by the parents, but this may be at the expense of autonomy and independence of the children. For example, when a mother does homework for a child, a

task which clearly belongs to the child is taken over by the mother. The child in this case does not learn how to deal with the responsibility her/himself. "The lack of subsystem differentiation discourages autonomous exploration and mastery of problems. In children particularly, cognitive-affective skills are thereby inhibited" (Minuchin 1974, p. 55).

Minuchin explains that most families have enmeshed and disengaged boundaries at one time or another. For example, when the children are infants, mothers and fathers are often highly enmeshed with the children. However, as the child grows older and is capable of doing more, parents tend towards disengagement, giving greater autonomy to the child. Enmeshment and disengagement refer to common transactional patterns, however, when these transactional patterns become extreme or inflexible, they indicate areas of possible problems in the family.

An effective family, according to Minuchin, needs a structure with subsystems having clear boundaries, with parents at a level of authority, and with parents having complementary roles. Does a learning disabled

child whose family has an effective structure display better cognitive and socio-emotional functioning?

Family Adaptation. Minuchin claims that a family is subject to inner pressures coming from developmental changes in its own members and subsystems and to outer pressures coming from demands to accommodate to new significant changes in social institutions that have an impact on family members. Responding to these demands from within and without requires a constant transformation of the position of family members in relation to each other so they can grow while the family system maintains continuity. "Inherent in this process of change and continuity are the stresses of accommodating to new situations (Minuchin, 1974, p. 60).

Having a child with a handicap creates an idiosyncratic stress on the family which requires accommodations from each of its subsystems and from the family as a whole. For example, a mother who has been taking care of a learning disabled child may require extra support from her husband when their child enters school and needs more help with homework. This would require changes within the parental subsystem. Minuchin claims that the individual child's difficulties can be exacer-

bated or perpetuated if the family as a whole does not change its transactional patterns according to the needs of the child (or maintains rigidly enmeshed or disengaged patterns of transactions).

Minuchin has provided a conceptual schema of effective family functioning. His three components of (1) family as a matrix of identity, (2) family structure, and (3) family adaptation can be used to identify specific facilitating structural and interactional processes in the family of the learning disabled child. It is proposed that families that have clearly defined subsystems and boundaries can adapt better to the developmental and idiosyncratic stresses encountered by their learning disabled child than families with diffuse systems and boundaries.

Research Based on The Structural Model of the Family

Research based on the structural model of the family includes both descriptive and treatment studies. The focus of these studies has been primarily on dysfunctional, clinically symptomatic families. Four types of clinical families have been studied to date: the low socio-economic family (Minuchin et al., 1967), the psychosomatic family (Minuchin et al.,

1978), the alcoholic family (Aponte & Van Deusen, 1981), and the addict family (Stanton et al., 1978). Research on psychosomatic families is particularly relevant to this proposal because of the large number of similarities to families of learning disabled children (Perosa, 1980). Research on psychosomatic families and its relevance to the families of learning disabled children will be described briefly below.

Psychosomatic families

Minuchin, Rosman and Baker (1978) studied families with children who suffered from either diabetes, asthma, or anorexia nervosa. These all entail significant physiological dysfunctions. A psychosomatic element was evident in the emotional exacerbation of the already available symptoms: Although these children had significant difficulty in the medical management of their diseases, their pediatrician could not find any organic or physiological reasons for the many symptoms.

A total of forty five families were involved in the research. The psychosomatic group included eleven families with anorexic children, ten families with asthmatic children, and nine families with psycho-

somatic diabetic children. There were two control groups: seven families with normal (non-psychosomatic) children and eight families with a diabetic member whose illness was under medical control but who had been referred for behavioral problems.

These authors used a Family Task, a Family Diagnostic interview, and Physiological Measures of FFA (Free Fatty Acids) to study these families. The Family Task involved a series of interactive tasks that the family carried out independently. The purpose of the Family Task was to reveal the hypothesized ongoing processes in the family. The Family Diagnostic Interview was conducted in three parts by a psychiatrist. During the interview, a conflict situation was presented and intensified. The purpose of the interview was to assess the child's involvement in parental conflict and the physiological effects of parental conflict on the child's disease. The Family Diagnostic interview, which involved a complicated task (see Minuchin et al. 1978), provided an opportunity to study how family members dealt with interpersonal conflicts and regulated each member's behavior. All the transactions during the Family Task and Family

Diagnostic Interview were videotaped and subsequently rated by trained independent raters.

From this data, Minuchin and his colleagues concluded that in comparison to control groups, psychosomatic families were characterized by enmeshment, overprotection, rigidity, and lack of conflict resolution. In addition they observed that these families used mechanisms of triangulation, scapegoating and detouring to avoid conflicts.

To reiterate, healthy functioning families have a cohesive structure where rules, roles and boundaries between the subsystem are clear yet flexible. Enmeshment refers to diffused boundaries. Minuchin et al. found that in psychosomatic families the boundaries between parental and child subsystems were weak. Parents did not carry out executive functioning. Children often took the parental role in the absence of a clearly defined and effective parental leadership Parents often worked at cross purposes to their children. At times one parent enlisted a child's support and reacted against the other parent. Healthy families accepted deficiency in a member. However, in their acceptance, parents did not over-

protect or reject the child nor did they overgeneralize the specific deficiency. In contrast, psychosomatic families overprotected members. Requests for help ("I don't feel well"; "I can't do it alone") dominated the conversation and children in these families did not feel grown up, did not display age-appropriate independence, and did not feel competent. The parents saw the child as totally vulnerable.

One of the hallmarks of healthy functioning families according to Minuchin is adaptability. Families must constantly change and adapt to society or to the developmental needs of its members. Psychosomatic families, on the other hand, were found to be rigid and committed to the status quo. Parents did not, for example, respond to the need for increased autonomy of their adolescent children. Even when changes were required, these families retained accustomed methods of interaction.

Healthy families having flexible boundaries, clear rules and roles, deal effectively with the adaptive needs of its members. The conflicts of the members are dealt with effectively and the families emerge from this experience at a higher level. Psychosomatic fami-

lies, according to Minuchin, display three pathological forms of coping with conflict. In the first, which Minuchin calls triangulation, the parents make the child choose sides. This created a lot of distress for the child because he or she could not express him/herself without siding with one parent against the other.

In the second pattern, which Minuchin called conflict avoidance, the child is given an adult role by one parent while the other parent withdraws from decision-making.

In the third pattern called detouring, parents remain united in blaming their sick child for the family's problems.

In summary, enmeshment, overprotection, rigidity and lack of conflict resolution were the main dysfunctional processes which characterized the psychosomatic families and which were related to the exacerbation of illness in the child. Minuchin and colleagues provided an excellent descriptive view of dysfunctional processes in the family of a psychosomatic child. However, they did not investigate how the normal diabetic families managed their children's illness. If the presence

of dysfunctional processes exacerbate the illness in the child, does the absence of these processes automatically facilitate the child's adjustment to his/her handicap, or did they do anything extra in terms of acceptance, support, or discipline and limit-setting in order to help their children deal with their illness? This was not investigated.

Could this model of psychosomatic families be applied in other situations such as learning disability? Minuchin's observations and interview procedures, although comprehensive are very complicated, cumbersome, and time-consuming. Could there be a simpler way to measure the family processes identified by Minuchin?

Application of Minuchin's model of Psychosomatic family to the family of the learning disabled child.

Perosa (1980) made the first effort to develop a questionnaire to measure the major constructs postulated in Minuchin's general model of psychosomatic family functioning, and to investigate whether Minuchin's specific model of psychosomatic family functioning could be applied to families with a learning disabled child. Twenty five families with learning

disabled children and twenty eight families with non-learning disabled children were included in the study. Learning disabled families involved children with various diagnoses and varying ages (from seven to eighteen). The SES of these families was either middle or working class.

Non-learning disabled families represented a higher SES group, the upper middle class. The average age of these children was 12.85 years. Parents as well as children above the age of 9 years were asked to answer the questionnaire.

From the data gathered from these two types of families, Perosa observed patterns that were similar to those displayed by psychosomatic families. Families with learning disabled children were characterized by overprotection, rigidity and lack of conflict resolution. These learning disabled families also displayed similar ways to avoid conflict as used by psychosomatic families. One notable distinction reported between thee two types of families was that the learning disabled families did not show enmeshment. The boundaries between parents and children were neither weak nor diffused. Rather, the boundaries between the fathers

and children were rigid. The fathers in these families were perceived as disengaged both by the mothers and the learning disabled children. Perosa concluded that the model of psychosomatic families could justifiably be applied to families of children with learning disabilities.

Perosa's study carved the path to study learning disabled families in a simpler way, yet many issues were not addressed. Perosa required the whole family, including the learning disabled child, to fill out copies of the same questionnaire. However, many items on the questionnaire were found to be difficult to understand by non-learning disabled twelve-year-olds. Parents were asked to explain the meaning of words children did not understand but not to read or discuss the questionnaire with their family members. How could learning disabled children who experience reading difficulties read and understand such a questionnaire?

The items in this questionnaire were addressed to parents in general and did not distinguish between the reactions of the father and mother. It is possible that mothers and fathers behave differently towards children. For example, a question such as "In our

family, parents seldom let children do things for themselves" would not indicate whether the answer refers to one or both parent's actions and to which child.

Similarly Perosa's questions were addressed generally to children in general and did not distinguish the reactions of the learning disabled child. In an any given family, all the members may require individual treatment. A child who has a learning disability may definitely require extra help, nurturance or limit-setting in comparison to his/her non-learning disabled sibling. Therefore, a question addressing the children in general may not necessarily depict processes that may be occurring between a learning disabled child and the rest of the family.

When Perosa compared learning disabled families with non-learning disabled families she did not consider the possibility that differences in learning disabled families may not indicate dysfunctionality. In comparison to non-learning disabled families, learning disabled families might use different, but highly adaptive processes to cope. For example, learning disabled children may require protection by the parents

for a longer period of time in comparison to non-learning disabled children. Therefore, what appears to be overprotection by learning disabled parents may not be. Furthermore, Perosa included children with various types of learning disabilities but made no formal measurement of differences in children's cognitive and affective functioning in her study. As a result, Perosa could not find out whether the distinctive processes of learning disabled parents such as overprotection, rigidity, lack of conflict resolution, etc. were adaptive or dysfunctional.

In addition, Perosa reported significant differences in the SES level and age of these two groups of learning disabled and non-learning disabled families. The non-learning disabled parents came from higher SES levels, and the group of learning disabled children was younger in age. The family processes discovered in learning disabled families could have been affected by the level of age level and the level of SES level which Perosa did not consider.

The focus of Perosa's research was on dysfunctional processes in the family. What about the functional processes? Do families have unique processes to fa-

cilitate the learning disabled child's academic and socio-emotional functioning? In summary, Perosa's study of families of learning disabled children presented an interesting but incomplete picture. It did not tell us if distinctive family processes are indeed dysfunctional. Furthermore, the study may not have indicated the processes most needed to promote learning disabled children's academic and socio-emotional functioning.

More recently an attempt has been made to study functional processes in learning disabled families. Horelick (1983) studied functional family processes and the family dynamics from a system's perspective and investigated their relationship to the academic and social adjustment of the learning disabled child. She chose the family system characteristics of "affective structure" and "decision making" on the basis of a study by Ro-Trock (1979). In Ro-Trock's study these two characteristics were correlated with each other and with the overall health and pathology of the total family system. Horelick additionally assessed how the process of "acceptance" related to both the family system and the learning disabled child. The degree of

acceptance of the learning disabled child was measured and compared to the systemic characteristics of the family and to the child's academic and social functioning in the classroom.

"Affective structure" referred to a family's pattern of positive and negative feelings toward each other. Horelick measured "affective structure" using The Inventory of Family Feelings (Lowman, 1971). It is a scale consisting of 38 items that requires each family member to answer "agree", "disagree" or neutral to each statement in terms of his/her feelings at that moment toward every other member. The concept of affective structure in this case seems somewhat similar to Minuchin's notion of cohesive structure. While affective structure explores both positive and negative feelings, cohesive structure pertains to an ideal or functional structure where parents are united and take complimentary roles in executive functioning.

Horelick measured decision-making ability by using the Ferreira-Winter Questionnaire for Unrevealed Differences (Ferreira, 1963). This questionnaire is used to indicate the formal structural aspects of the decision-making process. It focuses on the conjoint

behavior of family members while making a decision that has an impact upon all members in of the family. The process of "decision making" was assumed to be a part of the global ability to solve problems and adapt, and Horelick found that abnormal families were distinct from normal families on the variable of decision making.

Parental acceptance of children was assessed by the administration of the revised Porter Parental Scale (Porter, 1954). To more specifically address parental acceptance of children with learning disabilities, an additional scale of ten items was constructed by Horelick. Academic and social functioning of the learning disabled child were informally gathered from both the resource room and regular classroom teachers. Just seven families were studied.

Horelick (1983) found a significant relationship between the affective structure score of the marital dyad and the acceptance of a learning disabled child. Both measures were in turn related to positive social functioning of the learning disabled child. It appeared that the parents' positive interpersonal relationship affected their acceptance of their learning

disabled child. Horelick claimed that even if parents disagreed in their perception and attitudes toward their learning disabled child, they were very united on the issues of learning disability. Although there was no relationship between affective structure and decision-making ability of the family, a positive relation was found between decision-making time and academic functioning of the child.

Horelick introduced the idea that distinctive functional processes existed in the family of the learning disabled child. However, her data did not reveal a comprehensive picture of the learning disabled family because they were not interpretable in terms of a specific model of normal family development even though she used the systems approach and measurements.

Furthermore, Horelick did not adapt her general decision-making measures to focus on the specific problems of learning disabled families. How a family decides what restaurant they would choose for dinner or what movie they will see (samples of decision making tasks used by Horelick) may not be indicative of how parents decide what to do with a child who is three years behind his/her classmates in reading and does not

want to go to school, or a child who cannot make or keep friends. One needs to look at specific tasks that a family does in order to help their learning disabled child.

It is difficult to generalize from Horelick's findings because her sample only consisted of seven families. She also did not take any formal measures of children's academic or socio-emotional functioning. Therefore the validity of her conclusions remained uncertain.

Horelick suggested that having a learning disabled child binds the parents together, because the parents must focus on the child's problem in spite of their own interpersonal differences. This conclusion differed from those of Minuchin (1974) and Perosa (1980). They concluded that parents tend to exacerbate their child's difficulties because of the parents' interpersonal conflict. In their view, parents detour their conflict by focusing on the child's difficulties and in turn perpetuate the problem in the child.

These sorts of conflicting conclusions are widely prevalent in the field of family therapy. It is argued that such confusion stems from processes not being

clearly defined and demarcated, and from the same processes being given different names. It is further noted that explanations are given about the impact of the process without having any empirical evidence or data to support the view. Therefore, the issue of what is a functional and what is a dysfunctional process in the family must be considered carefully.

A similar argument is made by Amerikaner and Omizo (1984) who explored the relationship of family systems theory to problems associated with learning disability in school children. Based on the review of the literature, these authors felt that most conclusions about learning disabled children and their family processes were based on anecdotal, not systematic evidence. Moreover, previous studies had not considered whether family processes involving learning disabled children were different from family processes involving emotionally disturbed youngsters.

Amerikaner and Omizo compared disabled children with emotionally disturbed and normal children. Ninety children in all were studied (30 learning disabled, 30 emotionally disturbed, and 30 normals). All these children were from intact families. Both the parents

were asked to complete the Family Adaptability and Cohesion Scale, (FACES), (Olsen, Bell & Portner, 1978). The resulting data from FACES indicated that the learning disabled families interacted in patterns which are extremely similar to emotionally disturbed families. Learning disabled families did have problems; however, what specific problems were experienced by learning disabled families could not be described. These authors recommended use of family systems' concepts in the conceptualization of, assessment of, and intervention with the learning disabled children; however, a valid, innovative family assessment method needs to be developed that could be used by school personnel.

With this in view, the present study proposes to use Minuchin's structural model of family to develop an assessment procedure suitable for learning disabled children and their families.

As described above, Minuchin's structural model of the family subscribes to four basic structural and interactional processes. He proposed that a family provides a matrix of identity to the child by creating a sense of belonging and creating a sense of autonomy

and self esteem. 1) Acceptance of the child promotes belongingness and 2) support of the child promotes autonomy in the child. Furthermore, the 3) structure of the family needs to be organized so that the rules and roles in the family are clearly defined but flexible. Therefore the structure has to be cohesive and include those characteristics identified as necessary by Minuchin. Finally, the family needs to adapt and 4) problem-solve in order to meet the changing needs of its members and the society in which the family lives. Thus, four variables hypothesized to facilitate adjustment of the learning disabled child are acceptance, support, cohesive structure and ability to solve problems. The following is an attempt to operationally define these variables. A brief research review related to these variables is also presented.

FAMILY PROCESSES, DEFINITION AND RESEARCH

Acceptance

According to Minuchin (1974) children develop identities as a group member and a sense of themselves as individuals from their families. When the child is learning disabled and experiences difficulties in the academic or behavioral domains, acceptance by his/her

family becomes critical in developing self-acceptance. The importance of acceptance has been emphasized by several other writers as well. Osman (1979) suggests that a child with learning problems needs to feel accepted, to know that his/her parents care about him/her as a person, not just as a student. Kaslow and Cooper (1978) claim that learning disabled youngsters must be accepted as they are before any progress can be made. They suggested that the values and attitudes of parental figures toward the child play an extremely influential role in shaping his/her receptivity to the learning process.

Although the word "acceptance" has been used frequently in the literature on child rearing, a good definition is hard to find. Perhaps the best definition of the term "parental acceptance" has been offered by Porter (1954):

> Acceptance involves feelings and behavior on the part of parents which are characterized by unconditional love for the child, a recognition of the child's need to differentiate and separate himself from his parents in order that he may become an autonomous individual.

He defines non-acceptance as rejection, over-protection, indulgence, and other forms of parental behavior which fail to provide the child with an assurance of being a worthy individual who is loved unconditionally and who is respected for his uniqueness and need to become an autonomous individual.

Gallagher (1956), on the other hand, identifies four ways in which rejection can be expressed: (1) strong underexpectations of achievement, (2) setting unrealistically high or low goals, (3) escape, as through desertion or unwarranted institutionalization, and (4) reaction formation defined as masking the rejection by espousing precisely the opposite view. Furthermore, Gallagher (1956) provided a very useful distinction between primary rejection, which stems from the basic unchangeable nature of the child, such as ability level or sex, and secondary rejection, which represents the expression of negative attitudes based upon behavior manifestations of the child himself. For example, a deaf child may make excessive noise, a minimal brain damaged or hyperactive child may be excessively active and exhaust the parent. Gallagher

concluded that cases of secondary rejection far exceed the cases of primary rejection.

Gallagher's comments also ring true in the case of a learning disabled child and his/her family. The behavioral difficulties of the learning disabled child, such as impulsivity, hyperactivity, and short attention span make him/her an easy target for secondary rejection. Faerstein (1981) addresses the unique aspects of children with a learning disability and how these characteristics, in turn, affect family reaction and ultimately, the children's development. She claimed that, unlike children who are physically handicapped or severely retarded, learning disabled children are usually not identified during the early developmental period. However, their annoying behavior creates an adverse reaction from the family. In other words, even before a child has been diagnosed as handicapped, a pattern of rejection may develop because the child is so irritable and gives so little positive feedback to the parents.

Few studies have sought to investigate the relation between parental acceptance and learning disabled children's adjustment. However, there are studies

which have explored parental acceptance of retarded children or children with other handicaps. Saenger (1957) found evidence that reciprocal relationships existed between retarded children and their families. He studied retarded adults with IQ's below 50, who as children had attended special education classes in New York City. He discovered that the presence or absence of personality problems in these retarded adults showed an "exceedingly high relationship with the degree of parental acceptance.

Recently Rothbaum (1986) studied the relationship of level of maternal acceptance and the social functioning of the child. He defined and operationalized the concept of acceptance and the specific behaviors, attitudes and attributes that comprised this concept. Based on previous research Rothbaum described four different levels of maternal acceptance which ranged from an Adversary approach to a Harmony approach. In Adversary approach the parent placed heavy emphasis on punishments and on giving in or giving up. The parent's communications to the child were basically negative and there was unconcern for the child's welfare. In the Harmony approach, on the other hand, the

mother child relationship "was like a well oiled machine", lacking in friction. There was a constant validation of the child's feelings but not necessarily of the child's behavior. Parents in this approach used the child's mistakes and limitations as opportunities for working together with the child to foster growth.

Rothbaum conducted two separate studies. In the first study he assessed the level of acceptance in the mother's behavior through interviews with the mother. In this interview he asked mothers how they handled disobedience in their children. He assessed the child's social functioning behavior through the Child Behavior Checklist and the Teacher Report Form (Achenbach & Edelbrock, 1986). In the second study the mother/child dyad were observed during a lab session. The results showed that there was a very strong relationship between the degree of acceptance as expressed in the interview and as observed in the lab session. There was also a strong positive relation between maternal acceptance and the child's social functioning.

Although research indicates that parental acceptance is positively related to social adjustment in the

child (Horelick, 1983), the effect of parental acceptance on the academic functioning of the learning disabled child has not been established and needs investigating. Once parents can accept that their child has a specific problem, they may be more apt to look for solutions.

Featherstone (1980), a professional educator and mother of a seriously disabled child, described the process of acceptance by families in the following way:

When people use the term acceptance they usually refer to one of the four parallel processes, or sometimes to an amalgam of several. First, families acknowledge the existence of the handicap and its long term significance. Second, they begin the long and difficult task of integrating the child and the disability into their lives. Third, they learn to forgive their own errors and shortcomings. Fourth, they search for meaning in their loss.

Turnbull and Turnbull (1978) have found that when parents finally reach the stage of acceptance, they will enroll the children in special programs and will ask for special services. Parents also become involved in advocacy to help other handicapped children. There

is a channeling of their energies into solving the realistic problems of the child and the family (Michaels & Schucman, 1962). Drotar, Baskiewicz, Irvin, Kennell and Klaus (1975) believe that in the final stages of acceptance, parents are less anxious and become more comfortable with their situation.

It can be said that "acceptance" of a child with his/her disability not only promotes a sense of belonging or affiliation in that child, but also promotes constructive processes in the family which in turn positively affect the child's adjustment. The term "acceptance" denotes acknowledging the fact that the child has a specific difficulty, accepting the child for what he/she is, not rejecting or overprotecting, not having unrealistic expectations of what the child is capable, and finally searching for a solution to the daily problems created by the disability.

It is proposed that "acceptance" of a learning disabled child and his/her specific disability will be a significant factor in the social and academic adjustment of that child.

Support

Minuchin says "One of the main functions of the family is to support its members. When a member is stressed, the other family members feel the need to accommodate to his changed circumstances. This accommodation may be contained within a subsystem or permeate the whole family" (p. 61, 1974). Cognitive, perceptual, motoric, and behavioral difficulties (impulse control) experienced by learning disabled children make them more likely to form negative self images and have poor self esteem (Jones, 1985). Briard (1976) stated that a learning disabled child's secondary emotional problems stemming from his/her learning disabilities are in large part a result of a poor self-image and lack of self-esteem. Learning disabled children form this opinion of themselves as a consequence of their inability to learn as well as from their peers and from their inability to meet the expectations of the important others.

Many self-esteem theorists discuss the significance of the opinion of others upon a person's development and regulation of self-esteem (Freud, 1965; Gardner, 1971; Kohut, 1971; Mead, 1934; Sullivan,

1953). The esteem of others is thought to create a positive emotional milieu in which self-acceptance can develop and provides specific information about what is worthwhile about the person. That is, the opinions, attitudes, and feelings of others affect children's intrapsychic structure. Therefore, it seems that self-esteem is related to the support received from the family and significant others from an early age.

Operationally the variable of support is defined as a summation of frequencies of such parental behaviors towards a child as praising, approving, encouraging, helping, cooperating, expressing terms of endearment and physical affection. Empirical evidence indicated that supportive behavior of parents toward children correlates positively with children's academic achievement, creativity, self-esteem, and conformity (Rollins & Thomas 1975). The children receiving parental support also display greater internal locus of self-control (Scheck, Emerick, El-Assal, 1973).

Although family support has been recognized as an important factor in the adjustment of the learning disabled child (Hartzell & Crompton, 1984), there is a paucity of studies which have investigated how families

provide support to their learning disabled children. In contrast there are several studies which have looked into negative parental attitudes and expectations of their disabled children. Information about what these parents lack might give us a clue as to what parental attitudes and behaviors are needed in order to provide support to the learning disabled child.

In comparisons with parents of non-disabled children, parents of the learning disabled described their children as more difficult to talk to, less able to control their impulses, less able to structure their environment, and as more anxious (Owen, Adams, Forrest, Stolz & Fisher, 1971). Parents rated learning disabled children as less considerate, less able to receive affection, and more clinging than did parents of non-disabled children (Strag, 1972). Parents rated their learning disabled adolescents lower in effectiveness than parents of non-disabled children on several skills related to school, emotional and social maturity, and cognitive sophistication (Alley, Warner, Schumaker, Deshler & Clark, 1980).

Chapman and Boersma (1979) investigated teacher and mother expectations of learning disabled children's

academic achievement and compared them to normally achieving children. Both groups had similar WISC-R mean full scale IQ scores, ages, and socioeconomic backgrounds. It was found that teachers and mothers had significantly lower expectations for learning disabled children. It is quite possible that if these lower expectations are transformed into adverse classroom experiences, that these will be seen by low achieving children as confirmation of the belief that they have poor academic abilities. Similarly if parents expect less, it is likely that children would also learn to expect less from themselves.

Bryan, Pearl, Zimmerman, and Mathews (1982) found that mothers of learning disabled children not only viewed their youngsters negatively in comparison to mothers of non-learning disabled children, but that these mothers also tended to generalize the child's incompetency in non-academic areas.

These authors interviewed 56 mothers of learning disabled and non-learning disabled children from an elementary school. The interview was comprised of 3 sets of open ended questions and data from these interviews were later coded according to preset

categories. Mothers were asked to describe their children's strengths and weaknesses. Thus, one goal was to determine whether mothers of learning disabled children when directly questioned, would mention as many, although perhaps different, strengths as would mothers of non-disabled children. The second purpose of the study was to determine the mother's perception of the causes of her child's strengths and weaknesses. Learning disabled children in past research have been found to have an external locus of control (Pearl, Bryan, Donahue, 1980). The present study sought to determine whether the mothers of learning disabled children shared a similar belief system. A third issue examined in the present study was the mother's evaluation of their child's capabilities in comparison with those of the child's classmates. Of interest was whether negative social comparisons would generalize across other domains beyond the areas of academic achievements. A fourth purpose of this study was to replicate the findings that mothers of learning disabled children had lower expectancies of their child's future academic achievement, a finding previously reported by Chapman & Boersma (1979). This

was tapped by asking mothers to predict how well the child would be doing at the end of the current and following school year and to explain what factors might affect the child's performance.

The results indicated that in comparison with mothers of non-disabled children, mothers of learning disabled children described their child as having fewer academic strengths, exhibiting fewer behaviors likely to facilitate academic and social achievement, and being less skillful than classmates in both academic and behavioral domains. In addition, mothers of learning disabled children were more pessimistic about future performance than were mothers of non-disabled children. These mothers also tended to express feelings of less self-efficacy in changing their family environments to influence the child's school or social performance. Given this information, it would seem instead of being supportive, that parents of learning disabled children may have attribution and expectancies of the learning disabled child which may negatively influence the child's self concept and the attribution that the child makes about his/her abilities and performance.

From a systems point of view, optimally functioning families provide opportunities for growth and autonomy in its members. Families function as support systems that provide individuals with opportunities and feedback about themselves and validation of their expectations about others (Caplan, 1976). In case of a learning disabled child, families need to offer opportunities and feedback to counteract the negative effect of learning disabilities. Hartzell and Crompton (1984) suggested that families should encourage students to develop interest in out-of-school activities and foster their strengths in non-academic skills. This helps learning disabled students achieve social success as well as a good self-image. Furthermore, they suggest that a family's expectations of the academic performance of their learning disabled child should be realistic and based on a knowledge of the student's IQ and the extent of his/her disability. It seems that optimally functioning families have not only realistic expectations for their learning disabled children, but also do not generalize the child's incompetency to the overall functioning of the child. It is proposed that support of the learning disabled

child will positively influence the academic and social adjustment of that child.

The Cohesiveness of the Family Unit

The first and foremost characteristic of a well functioning family is its' structure. The structure of such a family has a distinct hierarchy and clear boundaries between parents and children. Parents have an egalitarian coalition and maintain executive position in the family. Furthermore, any conflict between the parents is primarily resolved within the parental subsystem. For instance, if mother feels that father is not helpful with the housework, she deals with it directly herself rather than triangulating a child in a spousal conflict.

Both Minuchin (1978) and Beavers (1977) have emphasized that the kind of cohesive structure described above is the hallmark of a well functioning family. Riskin (1980) studied "nonlabeled" families and found that parental agreement on how to raise children was even more important than parent's interpersonal relationship. Neifert and Gayton (1973) based on their experience with learning disabled families, emphasized the importance of cohesion between parents.

They noted that home intervention programs in families of learning disabled children were highly likely to remain unsuccessful if both parents were not actively involved with the child. Even if one parent was not actively involved, his or her support of the other spouse's efforts in implementing interventions with the learning disabled child was necessary.

Many studies suggest the presence of a learning disabled child increases marital conflict (Briard, 1976: Grunebaum, Hurwitz, Prentice & Sperry, 1962: Kaslow & Cooper, 1978; Silverman, Fite, & Mosher, 1959). A variety of hypotheses have been proposed to explain this increased marital conflict. Kaslow and Cooper (1978) suggested that parents are initially shocked at the discovery of the learning disabilities of their child. If they are unable to accept the child's disability, each spouse will blame the other for the child's affliction, one of the several relational patterns usually emerges. Parents may become irritable and the marital relationship becomes argumentative, or one parent, usually the mother, may become depressed. Another, often observed outcome is that one spouse may begin to see his/herself as the

child's protector against the other parent. The excluded parent may withdraw from the conflict. In some instances both parents may compete for the child's attention and affection.

Silverman, Fite, and Mosher (1959) hypothesized that an individual parent's own traumatic academic past can create problems for accepting their learning disabled child. Based on 35 clinical case studies of reading disabled children and their parents who also had academic difficulties, these authors found certain atypical patterns which they felt somehow related to the disability.

Frequently there would be only one parent actively concerned or present in such a child's family. They would probably be involved in serious marital discord. One or both parents, moreover would have undesirable attitudes regarding academic achievements and apply undue pressure to the child.

In comparing learning disabled families with non-learning disabled families Perosa (1980) describes the structure in families of learning disabled children as lacking clear boundaries. (Structure according to Minuchin pertains to an invisible set of functional

rules that organize the family system.) In such a family, Perosa says, parents, especially mothers, and learning disabled children experience neglect and disengagement by the fathers. Children are often caught in the conflicts between parents and may side with one parent against the other and experience tension. This tension is expressed behaviorally in more unresolved parent-child conflict.

Data from clinical and descriptive studies raises interesting hypotheses; however, they are based on the observations of selected populations of learning disabled children which have experienced problems and sought clinical help. Not represented are families that have coped successfully. Marital strife is not caused in every family which has a handicapped child. Research has consistently indicated that parents' success with their handicapped child depends upon their preexisting marital relationship (Barsh, 1968; Buscaglia, 1975). Korn, Chess and Fernandez (1978) investigated the impact of children's physical handicaps on marital quality and family interactions. They studied two hundred forty three children, ages three to six who had been diagnosed as having

congenital rubella. The intellectual functioning of these children (as measured by Stanford-Binet Form L-M or Cattell Infant Scale) ranged from superior to profound retardation. Some of the children had a psychiatric disorder in addition to rubella.

Procedures for data collection included several measures. Information on the child's impact on the family was extracted from a parent interview specifically designed for this purpose. This open ended interview was designed to provide information on the following: a) Parent's understanding of the nature of the child's deficits; b) Parent's handling of the child, including attitudes towards training, discipline etc.; c) Changes in the family life-style attributed to the handicapped child; and d) stress in the family before and after the birth of the handicapped child, including marital discord, family relationships, etc. These special interviews were conducted with 162 families.

The data indicated only 6 instances (3.7%) in the 162 families where parental discord and severe deterioration of the marriage could be specifically attributed to the presence of a handicapped child. In

4 of the 6 families, there was evidence of parental discord before the child was born, however, the presence of the child aggravated the difficulties. Of the 162 families, 36 families (22%) reported disruption of family routine due to the extra care required by the handicapped child. These authors argued that parental reactions can exert a negative effect on the child, however, the authors did not measure the impact of such child-family reciprocities. It seems that when directly investigated in a non-clinical population, the presence of a handicapped child, disrupts only a small number of families. Most families can and do cope effectively. What is required is a supportive, egalitarian coalition between the parents who maintain executive functioning in the family (Minuchin, 1974).

In studies with physically handicapped children, it has been found that the relationships within the family are crucial for the adjustment of the child. Drotar, Baskiewicz, Irvin, Kennell and Klauss (1975), in a study based on structured interviews with the parents of 20 children with a wide range of malformations, found that most parents experience initial periods of shock, disbelief and intense emotional

upset. Gradually this is followed by a period of adaptation. Adaptation was characterized by a lessening of activity and increase in the parents' ability to care for and experience satisfaction with their child. These authors tried to elicit some of the factors influencing the extent and rate of adjustment. Several mothers in this study reported that an emotional and physical support system played an important role. The maintenance of a satisfactory relationship was repeated between the parents who were able to communicate their feelings and provide support for each other during the crisis and were able to adapt more successfully to the child's birth than between those who could not communicate and eventually separated. Following interviews with the mother whose children's disabilities ranged from Down's syndrome to clubfoot, Johns (1971) noted that while all parents are initially stressed, the degree and extent of adaptation and acceptance seemed in part contingent on the husband's reaction and on the support given to the mother in caring for the child. Both of these authors did not investigate how the parent's interpersonal relationship

finally influenced the adjustment of their handicapped children.

It seems that the presence of a learning disability in a child creates extra stress in the family; however it does not necessarily create marital conflict. It would seem that parents who can maintain a strong parental coalition under this additional stress, who are supportive of each other and can carry out their roles, who can maintain clear boundaries and resolve their own conflicts without triangulating their learning disabled child, will more likely facilitate the adjustment of their learning disabled child.

Ability to Solve Problems

One of the main characteristics of a healthy family is its ability to adapt to new demands created by changes in its members. "This requires constant transformation of the position of family members in relation to one another, so they can grow while the family system maintains continuity" (Minuchin, 1974). In the case of the learning disabled child, his/her family not only requires flexibility in its structural patterns, but needs to actively seek a solution for the problems created by the child's learning disability.

It seems that the problems of a learning disabled child requires two different kinds of solutions from the family. First, the family as a whole needs information. Such informational needs include knowledge about the child's specific deficits and about how they can be treated. Second, families need to teach a child his/her specific strengths and how these strengths may compensate for deficit areas. Since many learning disabled children display hyperactivity, short attention span, and other behavioral difficulties, they need training in limit-setting and guidance from outside sources in order to develop self control (Osman, 1979). If a child encounters specific difficulty in math or reading, he/she may need extra tutoring or encouragement, so that the child can learn to deal with the problem rather than denying it or ignoring it. Learning disabled children often have difficulty in social functioning and may require training and guidance. It is theorized that families who can confront these issues and solve them will improve adjustment of their learning disabled children.

Parents of learning disabled children have been found to be poorly equipped to face such issues, to

make decisions, and to communicate their differences and disagreements to each other. For example, Peck and Stackhouse (1973) studied the family dynamics and decision making process in the families of children with reading problems. They studied 30 families (Father-mother-sons ages 9-13). Half of these families had a child who had reading difficulties (performed one grade below his/her expected grade level), while the other half did not have a child with difficulties. Their procedures included filling a 38 item opinion questionnaire (Mishler & Waxler, 1968), and a conjoint decision making task, in which family members were asked to make mutually satisfying decisions on the 20 items which they had identified in their questionnaire. This session was tape recorded and later coded according to categories established by Ferriera and Winter (1968).

Based on their data, the authors reported that families with reading problem made poorer decisions compared to normal families. On decision-making tasks, problem families took much longer to arrive at their decisions, spent a greater percentage of their time in silence, exchanged fewer explicit items of information,

and had a greater percentage of irrelevant transactions. The authors argued that in families having a child with reading problems, everyone seeks to avoid making decisions because the task of decision-making requires confrontation, affect, and direct statements of disagreement.

Decision-making ability and decision time has been found to be positively related to the academic adjustment of learning disabled children (Horelick 1983). It is possible that parents and children who can arrive at mutual agreement as to how to solve a particular problem can also follow through on those decisions. Such families can set limits, expectancies, and demands from their learning disabled child, while lack of such ability is perhaps reflected in parental inability to arrive at a mutual agreement in setting limits and guidelines for a learning disabled child.

Kronick (1976) conducted an ethnographic study of three learning disabled families. Although her sample was too small to use inferential statistics, she collected much qualitative information about these families. She found that dysfunction and disorganization were characteristics of the in-home behavior of fami-

lies in which learning disabled children manifested difficulties in peer interaction. She found a greater relationship among family pathology, learning disabilities, and social problems. Following Kronick's ethnographic study, Freund, Bradley and Caldwell (1979) studied the home environment and social ability of learning disabled children in seventeen families. They employed the Home Environmental Process Interview (HEPI). The findings of this small-scale interview/home observation study were consistent with Kronick's observations. The home environmental processes most predictive of learning disabled children's role taking and interpersonal problem solving were the maternal encouragement of socially responsible behavior and child-orientated sensitivity. Mothers who encouraged their learning disabled child to assume various duties around the house and who expressed sensitivity to their children's feelings in situations requiring disciplinary intervention generally had offspring who, relative to other learning disabled children possessed, superior social skills.

Osman (1982) believes that learning disabled children need definite guidelines and help in organizing themselves. A daily routine can provide stability and organization to learning disabled children. Having a regular time for homework, television, and dinner, and a regular place for storing books and games etc., provides security and routine. There is extensive literature available on parental involvement in tutoring, counseling and training their learning disabled children. Shapero and Forbes (1981) in their review of such studies found that families who became actively involved in helping their children, improved the adjustment of their children.

It is proposed that parents who recognize the learning disabled child's social and academic difficulties, who understand the learning disabled child's need for structure and organization, and who set limits and make systematic efforts to compensate for their children's learning disability will have children who succeed academically and socially. Learning disabled children not only need support to deflect their sense of failure, they also need encouragement to face and deal with their disability.

From the above literature review and Minuchin's structural model of the family, it is hypothesized that four specific variables used by families are associated with the adjustment of the learning disabled child. These variables, acceptance, support, cohesiveness, and ability to solve problems, are defined below in terms of specific family transaction patterns.

Acceptance in the family is manifested in the following ways.

a) The degree of recognition that the child has some difficulties in specific areas of his/her cognitive, motor, or perceptual functioning.

b) The absence of parental use of denial, over-protection, or rejection in dealing with the child.

c) The absence of either parent blaming the other for their child's difficulties.

d) Lack of parental embarrassment about the child's disability.

e) The degree to which a learning disabled child is given some responsibility as a part of the family.

Support for the child is shown in the following ways.

a) The amount of effort by the parents to deflect the child's sense of academic failure and frustration.

b) The degree to which the parents involve the child in non-academic activities where he/she can experience success.

c) The amount of effort to build up self esteem in the child.

d) The amount of parental respect and recognition for the child's minor successes.

e) The amount of parental perception and labeling their learning disabled child in positive terms such as: hard working, happy, capable, sensitive, etc.

Cohesiveness in the family structure is displayed by the following patterns:

a) Clear boundaries between subsystems of the family. The rules and roles among the subsystems are clearly defined.

b) High ranking for the parental subsystem in the family hierarchy.

c) A high degree to which leadership in carrying out decisions and responsibilities in regard to the children is shared among the parents.

d) Expression of conflict is allowed in parents as well as children.

e) Absence of detouring, scapegoating or triangulating children in resolving conflict in the family.

A family's ability to solve problems is expressed by the following:

a) Parents make a great effort to identify what their learning disabled child's weakness and strengths are.

b) Parents give emphasis to monitoring, setting limits, and providing environmental facilitators to help the learning disabled child.

c) Parents expend great effort in investigating resources to find new ways of dealing with their child's problems.

d) There is a great degree of sharing of responsibility in helping the learning disabled child.

e) There is more mutual support and agreement among parents about the ways to help their learning disabled child.

A brief review of the existing scales to measure family processes

In the field of family therapy, family assessment devices and evaluations are used to classify and make diagnoses. These diagnoses are made either in terms of broader family processes (i.e., affective structure, cohesiveness, adaptability) or in terms of single dimensions such as power, communication, conflict resolution, and change. A comprehensive review of family interaction research and of family measurement techniques can be found in Riskin and Faunce (1972), Strauss (1969) and Pinsof (1981). A few of the family process scales have been widely used by school psychologists (Carlson, 1985). They include the Family Environment Scale (Moos & Moos, 1976), Faces III (Olson, Portner & Lavee, 1985), The McMaster Family Assessment Device (Epstein, Baldwin & Bishop, 1983); these are reviewed below.

The Family Environment Scale (FES) is composed of ten subscales that tap individuals' perceptions of the

social-environmental characteristics of their families. The three main underlying domains consist of relationship, personal goal or growth orientation, system maintenance, and change. The ten subscales consist of: cohesion, expressiveness, conflict, independence, achievement orientation, intellectual cultural orientation, active recreational orientation, moral religious emphasis, organization and structure. FES has three parallel forms: (1) The Real Form (FORM R) measures people's perceptions of their families of origin and orientation. (2) The Ideal Form (FORM I) measures people's perceptions of their present and preferred family environments; (3) The Expectation Form (FORM E) taps expectation about family settings. These 3 parallel forms are completed by each of the members. The data from these scales are supposed to provide a social ecological environmental picture of the family's functioning. The areas of difficulty under each domain are identified and therapeutic interventions are guided accordingly.

This device is psychometrically sophisticated and has been applied in various situations. The normative data on the FES FORM R subscales was collected for 1125

normal and 500 distressed families. The distressed families included families in which an adolescent or younger child was in a crisis situation, but it did not include families of learning disabled children. Similarly, the items on these subscales pertain to general family problems and do not focus on learning disabled children and their families. A general picture of the family is not well suited to pinpointing the particular needs and difficulties of learning disabled children. Furthermore, in order to assess the perceptions of each member, each individual member is supposed to fill out the questionnaire. Learning disabled children with reading and comprehension difficulties may not be able to read and complete such a questionnaire easily. Alternative methods for filling out such forms have not been suggested or evaluated.

The individual and family profiles created by the scale pin point the areas where a family may be low in comparison to the given norm. However, it does not tell us what works for a family. Therefore, its utility in assessing relevant processes in families of learning disabled children seems questionable.

FACES III (Family Adaptability and Cohesion Evaluation Scale). FACES, a self report scale, was developed to measure the dimensions and concepts of a circumplex model and to describe a family as one of 16 types within that model (Olson, Bell, Portner, 1978). It is based on two underlying dimensions of family functioning (i.e. cohesion & adaptability). Cohesion refers to emotional bonding of family members and the autonomy of individuals within the system. This dimension ranges from extreme bonding (enmeshment) to extreme autonomy (disengagement).

The second dimension, adaptability, refers to modifiability of the family system in response to environmental changes. This dimension ranges from "extreme rigidity" to "extreme pliability". Olson and his associates developed a typology system (16 types) based on the above described dimensions. The typology is formed by defining four levels on each dimension, crossing the two dimensions and labeling the 16 cases thus produced. Healthy families lie in the midrange of these dimensions.

Several empirical studies have been completed to test the construct validity of the circumplex model

with various family/couple populations (Sprenkle & Olson, 1978; Russell, 1979; Portner, 1980). In addition, many other research projects have been conducted which relate to the dimension of cohesion and adaptability in the family (Minuchin et al., 1967; Reiss, 1971; Cromwell & Olsen, 1975).

Nashin (1980) applied this scale to study the family structure of learning disabled children. The primary question investigated was: is there any difference in family functioning along the dimensions of adaptability and cohesiveness between families having a learning disabled child who is low in LD/MBD symptomatology vs families having a learning disabled child who is high in LD/MBD symptomatology? She differentiated children in high and low symptomatology using specific cut off scores on the Walker Behavior Identification checklist (WBPIC). Using the circumplex model she found no significant differences among the high/low/central group families on a variety of measures. She concluded that FACE'S reliability and validity was questionable for use with the families of learning disabled children.

Epstein, Bishop & Baldwin (1982) have argued that typologizing families seems premature. Typologizing is one way to establish groups that can be compared in a statistical sense. However, it does not help us to look at the variations in processes that might exist in the family.

The McMaster Family Assessment Device (FAD) is a questionnaire designed to evaluate families according to the McMaster Model (Westley & Epstein, 1969). The model describes structural and organizational properties of the family group and the patterns of transactions among family members which have been found to distinguish between healthy and unhealthy families. The FAD is made up of 7 scales. One, general functioning, assesses the overall health/pathology of the family. The other six assess the dimensions of problem solving, communication, roles, affective responsiveness, affective involvement, and behavior control. The 53 items in the questionnaire are statements a person could make about his or her family. Each family member (over 12 years of age) rates his or her agreements or disagreements according to how well an item describes their families by selecting among the four

alternative responses: strongly agree, agree, disagree, strongly disagree. Fifteen to 20 minutes are needed to complete the questionnaire.

The norm sample for this device included 503 individuals who came from 112 families. Ninety three of these families had a member who was an inpatient in an adult psychiatric hospital. None of the families included had learning disabled children.

The reliability levels for each of the seven scales ranges from .72 to .92 (Chronbach's alpha). Validity of this scale has been established by two studies by the authors. FAD is a fairly new instrument and little is known about its validity. The concerns raised about the FES can be applied to FAD. The information about general functioning does not reveal much specific information about needs and problems of learning disabled children.

After surveying available instruments Amerikaner and Omizo (1984), concluded that the development of an innovative instrument was needed to assess the family of learning disabled child. Horelick (1983) had also recommended the need for exploration and development of a family assessment technique for school psychologists

in order to implement the intervention based on the systemic approach.

Need For Research

The review of the literature indicated that family processes are important in the adjustment of learning disabled children. A few attempts have been made to determine which family processes are related to the adjustment of learning disabled children. The literature survey indicated also that most of the previous research dealing with learning disabled children and families focused on the dysfunctional and pathological processes overlooking the healthy and facilitating processes of the family (Blacher, 1984; Johnston, 1984). Most of these studies have compared the responses of mothers of learning disabled children with those of mothers of normal youngsters (Blacher, 1984; Freund, Bradley, Caldwell, 1979). Although research using this type of design reveals that maternal reactions to these groups of children differed, it provides little help discerning which maternal processes are associated with better adjustment by learning disabled children. Also between-group comparisons overlook the within-group variability. This between-group approach only looks at

the direct influences in the family. How family members support, nurture, sanction, or discourage the learning disabled child's behaviors is a study of direct influence in the family. Stoneman and Brody (1984) claim that there is, however, a whole set of other influences that are best described as indirect influences. They are indirect because they refer to how sets of circumstances affect the interactions that family members have with one another. For example, a single mother may react differently to the frustration of learning disability in the child than the mother of an intact family who may get some support from her spouse. McCall (1983), and Rowe & Plomin (1981) suggest that "within family factors" account for as much or more of the variance as do "between family" factors. " Within family" factors include structural and organizational changes required in the family due to extra demands created by the learning disabled child.

Furthermore, evidence that similar patterns exist in all learning disabled families should not be interpreted necessarily as reflective of dysfunctioning. It is also possible that some of these patterns are a necessary adaptation in the learning disabled family

and are in fact functional. For example, a learning disabled child who is repeatedly teased by his classmates may need extra support from his parents. In addition to teaching this learning disabled child techniques for dealing with peer teasing, parents may talk to the teacher or the classroom. This positive action may be viewed as overprotective when compared to parents of normal children but in the case of learning disabled youngsters, it may be needed. It is, therefore, premature to interpret unusual behavior of parents of learning disabled as dysfunctional until that behavior can be shown to have a negative effect on the child. What may be dysfunctional for one family with one type of child may be functional for another family. This view is espoused by Minuchin who views normality in relative terms. Functional and dysfunctional, for him, are determined by the fit of the system's structural organization to its functional requirements in development and social context (Aponte & Van Deusen, 1981).

The literature review has indicated the need for developing an instrument that would address the structural and interactional processes of the learning

disabled child and his/her family. This is a goal of the present research. A questionnaire based on Minuchin's model of normal family is developed to identify family processes related to the academic and socio-emotional adjustment of learning disabled children.

The following hypotheses are proposed:

1. The total score on the measures of family processes (acceptance, support, cohesiveness, and ability to solve problems) will be positively correlated to each measure of academic functioning (grade point average, teacher rating of classroom functioning, and standardized achievement test results).
2. Each of the subtotal scores of the Family Processes of acceptance, support, cohesiveness, and ability to solve problems will be positively correlated to each measure of academic functioning.
3. The total score on the subprocess of ability to solve problems would be most useful in predicting the overall academic functioning, as indicated by the composite measures of

grade point averages, teachers' rating of classroom functioning, and scores on standardized achievement tests.

4. The total scores on the measures of family processes (acceptance, support, cohesiveness, and ability to solve problems) will be positively correlated to self-concept and adaptive behavior, and negatively related to problem behavior.
5. Each of the subtotal scores of the family processes (acceptance, support, cohesiveness, and ability to solve problems) will be positively correlated to measurements of self-concept and adaptive behavior, and negatively related to problem behavior.
6. The total scores on the subprocess of cohesiveness would be most predictive in the overall academic and socio-emotional adjustment indicated by the scores of composite representing both academic and socio-emotional functioning.

Chapter III

Methodology

In this chapter, a pilot study explaining the procedures employed in the development of the Family Process Questionnaire (FPQ) is discussed. In the first section, the sequence of steps pursued in the pilot study are described. This is followed by the second section in which subjects, procedures, instrumentation, and data analysis for the present study are detailed.

Pilot Study

The Development of the Instrument

The main instrument developed as part of this research was a questionnaire measuring family processes of acceptance, support, family cohesiveness and problem solving ability. Broad facilitating processes of normal families were identified based on Minuchin's (1982) Family Model. Three clinicians who had extensive experience in working with learning disabled children and their families were interviewed to identify specific behaviors that fell within these broader processes. Literature was also reviewed to define these processes. Family behavior indicating the process of acceptance, support, cohesiveness and ability to solve problems were identified. Based on information derived from these three sources, a semi-structured interview

format was developed. A copy of this semi-structured interview is given in Appendix A.

The sample for this pilot study consisted of 10 families each having a classified learning disabled child. The children's ages ranged from 13 to 18. All the families came from middle SES backgrounds in rural area of New Jersey. Six of the families came from the same school district of Montville Township and four families came from different towns. All families who participated in this study had two or more children. At least one child in each family was classified as learning disabled, however, one family had three children who were classified as learning disabled. Of the ten families involved, nine were two parent households and one was a single parent household. Three mothers and 2 fathers had earned college degrees. All these families owned their own homes.

The sample was divided into two groups. One group consisted of five families whose learning disabled children were described as well adjusted and having no secondary problems. The other group of five families had non-adjusted learning disabled children who were showing secondary academic, emotional, and social adjustment difficulties. The identification of children as adjusted and non-adjusted was based on the recommendations of a school psychologist.

A local school psychologist was contacted and asked to recommend five families with a classified learning disabled child who was well adjusted in terms of academic, social, emotional, and familial functioning. The school psychologist contacted these families to ask their permission before releasing their names. These families were informed of the reason they were chosen and the purpose of the study.

The second group involved five families with a learning disabled child experiencing academic, social, or emotionaldifficulties. Four of these non-adjusted families had sought clinical help to deal with their children. One family was initially recommended by one of the members of the second group as having sought clinical help.

Children in the adjusted family group consisted of 3 girls and 2 boys. The non-adjusted group consisted of 3 boys and 2 girls. Most of the children had been classified as learning disabled between the ages of seven and ten years. However, one child from the non-adjusted group was considered a "borderline" case by the school. The parents in this family had to enroll the child in a private school since the local school did not provide any remedial service.

After the school psychologist had secured the families' permission, these families were contacted and

interview schedules were set up with the mothers. Most of the interviews took place in the individuals' home. Other interviews were conducted in the mother's place of business. All of the interviews were tape recorded, except one in which the mother refused. Extensive notes were taken of that interview. The initial interview was conducted using open-ended questions.

The data from these interviews were analyzed and divided into four categories from which the items were generated and a questionnaire was formulated. Each of the families were contacted a second time and were given the final questionnaire (FPQ) to be completed. The family that had refused to be taped did not return the questionnaire, unlike all other families.

The main FPQ consisted of a total of eighty items which were subdivided into four separate categories of 20 items. The responses were scored on a scale of one to four. Approximately half of the items in each category were scored in reverse. The higher scores indicated a better adjusted family. Within each category, the items were divided into 2 sets. The first set inquired about attitudes and the second set inquired about behaviors. The decision to divide the items into behaviors and attitudes was based on information that often parents differ in the attitudes which they report and their actual behaviors (Becker & Krug, 1965;

Lytton, 1971; Yarrow, 1963). Therefore it was thought that the combined information about attitudes and behaviors could present a more comprehensive picture.

The first set consisted of 40 items, 10 from each category. These items related to the attitudes that parents might feel about the learning disability, their learning disabled child, and structural and interactional aspects of their families. The second part, related to the behaviors that parents displayed regarding these same aspects. The second part also consisted of 40 items. Part one was scored on a four point scale of "strongly disagree, disagree, agree, strongly agree." Part two was also scored on a four point scale of "always, often, seldom, never." The four subscales in both part one and part two were arranged in a similar order. The subscales of acceptance and support were followed by the categories of problem solving and cohesiveness.

The four subscales of the FPQ were analyzed. A frequency distribution of responses for each item was produced separately for each of the subscales for the adjusted and non-adjusted group. The significant differences between the two adjustment groups were ascertained by t-test for the overall score, for totals for each subscale, and for parts one and two. The results indicated that the two groups differed sig-

nificantly in overall scores ($t(7) = 3.06$, $p < .05$). For the subscale analysis, problem solving and cohesiveness produced the most significant group differences. No significant difference were found for the subscales of acceptance and support.

The obtained results provided support for the initial hypothesis that an adjusted family with a learning disabled child will score high on the overall categories of acceptance, support, cohesiveness, and ability to solve problems. Not supported by the results was the hypothesis that two groups of families would differ in the categories of acceptance and support.

The item analysis found a rather small number of items discriminating significantly between the two groups. Most of these items occurred in the category of cohesiveness.

There were several noteworthy limitations of the pilot study:

1. The sample was very small. Only 10 families participated. One family out of 10 did not return the final questionnaire.
2. The categorization of the families into 2 groups was based on subjective judgments by the school psychologist. There were no

objective criteria for rating the child as adjusted or not.

3. Some of the items in the various categories were ambiguous. One parent suggested that the questionnaire didn't explore the parental awareness of the learning disabled child's emotional state sufficiently. Parents can be supportive of the child once they are sensitive to how the child feels about his/her learning disability. This point was noteworthy.
4. More discriminating items needed to be developed within each of the categories. The acceptance and support categories have been given a lot of emphasis in the literature. This pilot study did not indicate these categories to be strong predictors. Better definitions and questions about the categories are needed.

Instruments

The Revised Family Process Questionnaire (FPQ)

The obtained data from the pilot study was used to revise the FPQ. The items in each of the categories were reworded. Two items in each category were dropped. The present FPQ consists of 72 items, eighteen in each category. The first nine items of each

category are combined into the attitude part and are scored on a four point scale ranging from strongly agree, agree, slightly disagree and strongly disagree. The second nine items of each category are combined in the behavior part of the FPQ and are scored on a four point scale ranging from always, often, seldom, and never. In addition a score of "Non-Applicable = 0" is added to each item to provide the option to the respondent in case the item is not relevant. Almost half of the items are scored in reverse. (A copy of this is given in Appendix B).

Academic Functioning: Childrens' academic functioning was measured through three different sources. They were grade point average on Reading and Math, national percentile score on Reading and Math on California Achievement Test and the teachers' ratings of childrens' classroom functioning on Reading and Math. The teachers' ratings were obtained in a standardized form using the Child Behavior Checklist-Teacher Report Form (TRF).

Child Behavior Checklist - Teacher Report Form (TRF). The TRF is a four page questionnaire designed to be completed by teachers. It is modeled after the Child Behavior Checklist (CBCL) which was developed to obtain parent's reports of their children's problems and competencies (Achenbach & Edelbrock, 1983).

Teacher's are in a good position to observe responses to tasks that require sustained attention, persistence and organization (Achenbach & Edelbrock, 1986). Teacher's observations and evaluations, therefore, were deemed relevant in assessing the child's academic functioning.

In TRF, a teacher rates the child on school performance, adaptive behavior and problem behavior. The school performance provides an index of where the child is functioning in comparison to his/her class and grade level on several subjects. Four types of adaptive behaviors are assessed: 1) how hard is the child working, 2) how is he/she behaving, 3) how much is he/she learning, 4) how happy is the child. Teachers are instructed to compare the child with his/her peers. The raw scores for all these indexes are converted into a standardized score. The problem behavior scale consists of 113 items referring to the child's behavior in the classroom to which teachers respond by circling 0, 1 or 2. A score of 0 refers to items not true. Scores of 1 or 2 refer to items somewhat true and very true, respectively. Co-occurring items are combined into behavioral clusters which form diagnostic categories for children. Norms and standardized cut off scores are provided for each behavior.

There are three different types of reliability tests reported on TRF. First, the test-retest reliability ranged from .84 to .90. For the stability index over two months period, the test-retest correlation was .74. For the teacher and teacher aide agreement on TRF, the median Pearson correlation was .57.

Construct validation of the TRF has been established by correlating it to other assessment procedures. The Pearson correlation between the TRF and the Conner Revised Teacher Rating Scale (Goyette, Conners & Ulrich, 1978) was reported to be .85. Achenbach and Edelbrock (1986) claim that despite differences in the items, response formats, and standardization samples, the relation between corresponding scales of TRF and the Conner's Revised Teacher Rating Scale is as strong as those found between different tests of cognitive abilities (e.g. Wechsler, 1974).

Other evidence of construct validity has come from studies of TRF scores of pupils who differed in diagnoses made independently of the TRF. Edelbrock and Achenbach (1984) report that children diagnosed as having attention deficit disorders (ADD) scored significantly higher on Inattentive scale than a control group of clinically referred children having other diagnoses. Harris, King, Reifler and Rosenbert (1984)

found that special education pupils diagnosed as having emotional disorders were significantly more deviant on the problem scales of the TRF profile than were special education pupils diagnosed as having a learning disability. Relevant to the present study, it was hypothesized that learning disabled children coming from functional families will have lower scores on total problem behavior and higher scores on adaptive behavior and school performance than children coming from non-functional families.

For the purposes of this study, the index of school functioning is combined with the two other measures of academic functioning of the child (i.e., grade point average and standardized achievement test) to ascertain the academic adjustment of the learning disabled child. The indices of adaptive behavior and problem behavior were combined with the scores of the self concept scale to formulate socio-emotional adjustment of the learning disabled child.

Socio-Emotional Functioning. The socio-emotional functioning of the child was assessed by three different measures. The scores on adaptive behavior and problem behavior were two of the indices obtained through TRF described above. Children's emotional functioning was also assessed via the Piers-Harris Self Concept Scale.

The Piers-Harris children's self concept scale, entitled, "The way I feel about Myself" is a self report measure composed of 80 questions to which the subject responds yes or no. The test can be completed in approximately 20 minutes and can be administered individually or in a group. The scale can be used with children ranging from the ages of eight to fifteen years and it requires the subject to possess only a third grade reading level. The definition of self concept employed in this test is phenomenological referring to a set of relatively stable self attitudes which are not only descriptive but evaluative.

The test has been standardized on third through tenth grade students. Reliability as measured by the Kuder-Richardson formula ranged from .78 to .93. Overall the test is judged to have good internal consistency and adequate temporal stability. The test correlates significantly with other measures of self concept.

This self concept test measures how the children are viewed in their family. Relevant to this study is the idea that family processes influence the child's self concept and subsequent adjustment. From an ecological view of self concept, Stone (1984) studied the influence of achievement and SES on the self concept of 55 male and 27 female, 7-13 years old, who were learn-

ing disabled students. She assessed children's perception of parental expectations and family attitudes. Stone did not find any significant differences between middle and low SES children's in their perception of parental expectations and family attitudes, however, she found a positive relationship between low self concept and negative family perceptions. Stone concluded that poor self concept may be more closely related to perceived parental expectations and family attitudes than with achievement or SES.

Another study using the Piers-Harris Self-Concept scale indicated that children's self-concept and self-esteem are related to the amount of support and closeness experienced by the child. Cooper, Holman, & Braithwaite (1983) investigated the relationship between a child's self esteem and his/her perception of family closeness. Closeness in the family was identified in terms of 5 family types (1 and 2 parent family cohesiveness, divided parent coalition, and isolated child). The self esteem inventory, the P-H self concept scale, the measure of perception of family happiness and support (the child and family questionnaire incorporating the family cohesion index) were administered to 467, 5th and 6th graders. Teachers' knowledge of family relationships was also measured. Results indicated that subjects from dif-

ferent family types experienced varying degrees of closeness and support. Subjects reporting little family support tend to score low on self esteem.

In view of the above studies, it seemed relevant to use the Piers-Harris Self Concept scale as one of the indicators of a child's socio-emotional adjustment.

Procedure for the selection of the sample and collecting data

A total of sixty five school districts in Morris and Bergen County of northwest New Jersey were contacted and requested to participate in the study. After obtaining consent from fourteen school superintendents and child study teams, four hundred and fifty letters of consent were mailed to the families of children classified as perceptually impaired.

The term Perceptually Impaired (PI) is described by Chapter 28, Special Education, New Jersey Administrative Code, Title 6:28-1.3 in the following manner. "Perceptually Impaired" means a specific learning disability manifested in a disorder in understanding and learning, which affects the ability to listen, think, speak, read, write, spell and/or compute to the extent that special education is necessary for achievement in an educational program."

The letter of consent, which was accompanied by a cover letter from each school district, described the purpose and the steps involved in the study (a copy of this letter is provided in Appendix C). One hundred and twenty nine families consented to participate and consequently were mailed the FPQ. The anonymity of the families were preserved in the following way: The letters were mailed by the school districts who assigned numbers to each of their families. One hundred and sixteen families returned the completed questionnaire within ten days. A few families who did not return the questionnaire were followed up by a phone call. Eight families who did not return the questionnaire could not be reached by phone.

The Piers-Harris Self Concept Scale was administered to one hundred and twenty nine children in fourteen different school districts by this researcher. Children were seen in groups wherever possible. When some of the children expressed difficulty in reading particular words or sentences, they were read to them. Instructions about how to complete the scale were read to all the children.

The data on the Teacher Rating Form (TRF) was collected from the teachers. Most of the teachers were provided with the name of the participant, a copy of the scale and an accompanying cover letter, which gave

a brief description of the study and the instructions to complete the form. Some of the teachers were mailed this form by the researcher and they mailed it back. Copies of both these are provided in the Appendix D.

The information on grade point averages and the scores on standardized achievement testing and IQ were collected by the researcher from either the children's records kept by the child study team or from learning disability consultants or school counselors. Seven families who had consented and returned the completed FPQ were dropped from the sample because the teachers of these particular children refused to complete the TRF in spite of several requests by the directors of child study team and this researcher. Furthermore, twenty eight other families had to be excluded from the sample because their children lacked data on standardized achievement tests and grade placement. In summary eighty six families were included in the final sample and data were completed on these families.

Demographic data about the families were collected by a separate data form. Information about parental marital status, with whom the child lived in case of a divorce, and if the child maintained contact with their natural or step parent was gathered. Instructions were provided as to how to answer questions relating to spouses. In addition to the demographic information on

consenting families a separate data form was developed for non-consenting families. This data form requested information about marital status, socio-economic background and the level of child's learning disability. Most school districts were reluctant to give this information and refused. Only four school districts provided information on a certain percentage of the total non-consenting families in their school district. Information such as this required school personnel to go through records since this researcher could not go through the records without parental permission. Data was collected on gender, socio-economic status, marital status, and living arrangements on a total of fifty five non-consenting families.

Chapter IV

Results

This chapter will present a demographic description of the sample; an evaluation of the reliability and internal consistency of the main instrument, the Family Process Questionnaire (FPQ); and data bearing on the proposed hypotheses.

Demographic Description of the Sample

A total of 86 families made up the final sample for this project. These families represented a wide SES range (Duncan O.D., 1961). Sixteen percent of these families came from the lowest twenty five percent of the socio-economic scale. These low SES families consisted of parents who were either single mothers who did not complete high school education, and were either unemployed or were employed as laborers or cafeteria workers. Twenty-four percent of the parents in the sample were at the top of the SES scale. They were employed as lawyers, accountants, and professors. The remaining sixty percent of the sample came from the middle class. One or both of these parents were college graduates and were employed as clerical workers, insurance agents, nurses, or teachers.

Parents were asked to indicate whether they believed themselves to be learning disabled, based on either their own educational experiences or from

educational classifications rendered to them as students. Ten mothers and sixteen fathers rated themselves as having learning disabilities. The data on marital status and living arrangement indicated that eighty-two percent of the families in the study were intact two parent families, while the rest were divorced, separated, or widowed. In terms of living arrangements, sixty-eight percent of the children lived with their natural parents, while five children lived with their natural mother and step-father. Thirteen children (15%) lived with their separated or divorced mother, but maintained close contact with their fathers. There were a total of three cases in the original sample of one hundred twenty-nine families where children had no contact with their father, and the mothers did not respond to that section of FPQ which dealt with spousal relationships. These cases were dropped from the sample.

This sample of children consisted of fifty-two boys (62%) and thirty-three (38%) girls who were all classified as perceptually impaired. Data were collected on their class placement, and rated from highly restrictive = 3, such as a self-contained classroom, moderately restrictive = 2, such as resource room, to least restrictive = 1, where children received supplementary instruction. Twenty-eight percent of

these children were placed in self-contained classes for the perceptually impaired, while thirty-six percent received help in the resource room. The remaining children received supplementary instruction in math and reading. Table 1 presents data on age, grade, and IQ of these children.

Table 1 data indicate that the majority of these children were between the ages of 11 to 14 years. Their grade placement ranged from 4 to 11, but the majority of the children were in grades 5 through 8. All these children had been administered the Wechsler Intelligence Test-Revised (Wechsler, 1974) as part of their educational assessment. The range of IQ scores for these children was fairly large; sixty-three percent of the children scored in the average range and twenty-three percent scored in the above average to superior range (115 - 130). Fourteen percent of the children had an IQ in the dull normal range (79 - 85).

Only one child had an IQ in the educable mentally retarded range (50 - 70). This child was classified as perceptually impaired and was placed in regular school in a self-contained class for the perceptually impaired.

Table 1

Mean, Standard Deviation, and Range on the Age, Grade and IQ

N=86

	Mean	Standard Deviation	Minimum	Maximum
Age	11.78	1.59	9	16
Grade	6.27	1.62	4	11
IQ (WISC-R)	100.64	11.97	59	127

The Family Process Questionnaire (FPQ)

The Family Process Questionnaire consists of 72 items which fall into the four subcategories of acceptance, support, cohesiveness, and ability to solve problems. Table 2 presents the number of items, mean, standard deviation, and range of scores obtained on the Family Process Questionnaire (FPQ). Table 2 data indicate that all the subprocesses remained quite similar in their means. The subprocess of cohesiveness obtained the highest range and highest standard deviation. The potential range represents the minimum or maximum score that a family could obtain on any of these processes.

Reliability: The Internal Consistency of FPQ

The internal consistency of the FPQ was measured using Cronbach's alpha for each of the subscales and for the total. Table 3 presents the number of items, average item to total correlation and the internal consistency alpha for each of the subscales and the total.

Table 3 reveals that the internal consistency calculated with alpha was .90 for the entire scale. Nunnally (1967) has recommended that an alpha score of .50 or .60 is acceptable for a newly developed instrument. In this case, the total scale coefficients as well as all the subscale coefficients met this criterion. The alpha score for the subprocesses ranged

Table 2

Number of Items, Means, Standard Deviations, and Ranges of Scores on the Total and Each of Subprocesses of the Family Process Questionnaire

N = 86

Variable	Number of Items	Mean	Standard Deviation	Range	Potential Range of Raw Scores
FPQ TOTAL	72	233.91	17.58	196-272	0-288
FPQ ACCEPTANCE	18	60.34	4.76	49- 70	0-72
FPQ SUPPORT	18	57.04	4.81	46- 68	0-72
FPQ COHESIVENESS	18	57.18	7.55	36- 70	0-72
FPQ PROBLEM SOLVE	18	59.38	5.46	48- 71	0-72

FPQ = Family Process Questionnaire

Table 3

Number of Items, Average Item to Subscale Correlations, Internal Consistency Alphas of the Total and Each of the Subprocess of the Family Process Questionnaire

N = 86

Variable	Number of Items	Average Item-Total Correlation	Alpha
FPQ TOTAL	72	.42	.90
FPQ ACCEPTANCE	18	.25	.63
FPQ SUPPORT	18	.27	.68
FPQ COHESIVENESS	18	.48	.86
FPQ PROBLEM SOLVE	18	.36	.77

FPQ = Family Process Questionnaire

from .63 to .86. The highest subscale, family cohesiveness, was .86, followed by family ability to solve problems at .77. The alpha scores for the subscale of family support (.68) and for family acceptance (.63) were fairly reasonable, according to Nunally's criterion. None of the items correlated negatively with the total scale.

The intercorrelations between the total and each of the subprocesses were determined by simple Pearson correlations. Table 4 portrays the intercorrelation. As indicated in Table 4, the correlation between the total and among the subprocesses ranged from .36 to .82. High correlations existed between the total and each of the subprocess ($r = .71$ to $r = .82$). Moderate correlations were also observed among each of the subprocesses.

Tables 5 and 6 present the descriptive data about each of the dependent measures. Table 5 depicts the means, standard deviations, range and potential range of student scores on measures of academic functioning (grade point average (GPA), California Achievement Test (CAT), and teachers ratings (TCHRATE) on math and reading).

In Table 5 the grade point average is a combined average of letter grade points in math and reading converted into numerical scores (A=5, B=4...F=0). Teachers' ratings of each child's functioning was

Table 4

Pearson Correlation Between the Total FPQ and the Subprocesses of Acceptance, Support, Cohesiveness, and Ability to Solve Problems

N = 86

Variable	FPQ TOTAL	FPQ ACCEPT-	FPQ SUPPORT	FPQ COHE-SIVENESS	FPQ PROBLEM SOLVE
FPQ TOTAL	1.00				
FPQ ACCEPTANCE	.74***	1.00			
FPQ SUPPORT	.81***	.52***	1.00		
FPQ COHESIVE	.82***	.47***	.55***	1.00	
FPQ PROBLEM SOLVE	.71***	.40***	.50***	.36***	1.00

FPQ = Family Process Questionnaire

*** $p < .001$

Table 5

Means, Standard Deviations, and Ranges of Measures of Academic Adjustment

N = 86

Variable	Mean	Standard Deviation	Range	Potential Range of Raw Scores
GPA	6.90	1.56	2.5-10.00	0-10
TCHRATE	4.10	1.30	2.00-8.00	2-10
CAT	84.06	39.89	16.00-178.00	1-199

GPA = Grade Point Average

TCHRATE = Teacher Rating

CAT = California Achievement Test

scored on a 5 point scale (far below grade level = 1; far above grade level = 5) for math and reading and then for the two combined. Similarly, the national percentile scores for math and reading on the CAT (California Achievement Test) are combined and averaged. The potential range represents the minimum or maximum score that a student can obtain on these measures. The potential range represents the minimum or maximum scores that a student could obtain on these measures.

Table 6 presents the means, standard deviations, ranges and potential range of measures of socio-emotional adjustment (Adaptive Behavior, Problem Behavior, and Self-Concept Scale). In Table 6, adaptive behavior and problem behavior scores were measured through the Teacher Rating Form (TRF). Self-Concept scores were derived from the Piers-Harris Self-Concept scale. The potential range represents the minimum or maximum scores that a student could obtain on these measures.

Table 7 summarizes the intercorrelation among and between measures of academic and socio-emotional functioning. The intercorrelations of measures of academic functioning range from $\underline{r}$ = .33 to $\underline{r}$ = .50. GPA and CAT were significantly related ($\underline{r}$ = .33, $\underline{p}$ < .01), as were CAT and TCHRATE

Table 6

Means, Standard Deviations and Ranges of Measures of Socio-Emotional Adjustment

N = 86

Variable	Mean	Standard Deviation	Range	Potential Range of Raw Scores
ADAPTIVE BEHAVIOR	14.65	4.50	5.00- 28.00	4-28
PROBLEM BEHAVIOR	26.80	21.00	0.00-104.00	0-240
SELF-CONCEPT	60.62	12.84	29.00- 80.00	0-80

Table 7

Intercorrelations Between Measures of Academic Functioning and Socio-Emotional Functioning

N = 86

Variable	ADAP BEH	PRB BEH	SELF-CON	GPA	CAT	TCHRATE
ADAP BEH	1.00					
PRB BEH	-.58***	1.00				
SELF-CON	.41***	-.40***	1.00			
GPA	.48***	-.26*	.24	1.00		
CAT	.13	-.23*	.14	.33**	1.00	
TCHRATE	.26**	-.30**	.25**	.36**	.50***	1.00

ADAP BEH = Adaptive Behavior

PRB BEH = Problem Behavior

SELF-CON = Self Concept

GPA = Grade Point Average

CAT = California Achievement Test

TCHRATE = Teacher Rating

*** $p = < .001$
** $p = < .01$
* $p = < .05$

(r = .50, p < .001). The correlation between GPA and TCHRATE (r = .36, p < .01) was also significant. The intercorrelations among measures of socio-emotional functioning are also significant. Table 7 indicates that Adaptive Behavior and Problem Behavior related significantly (r = -.58, p < .001). The correlation coefficient between Adaptive Behavior and Self-Concept was also significant (r = .41, p < .001) as well as the correlation between Self-Concept and Problem Behavior (r = -.40, p <.001).

The intercorrelation between these two different measures of academic and emotional adjustment were significant in some cases and not in others. For instance, as indicated in Table 7, no significant correlation existed between CAT and Adaptive Behavior or Self-Concept (r = .13, p > .05 and r = .14, p > .05, respectively). The Problem Behavior score, on the other hand, was negatively correlated with each measure of academic functioning. In summary, a substantial degree of intercorrelation was observed among and between many of these indices of academic and socio-emotional functioning.

The results of each hypothesis are presented below following a statement of the specific hypothesis.

Hypothesis 1: The total score on the measures of family processes (acceptance, support, cohesiveness,

and ability to solve problems) will be positively correlated to each measure of academic functioning (grade point average, teacher rating of classroom functioning, and California achievement test results).

Pearson correlations were carried out between the total FPQ score and each of the academic measures. Hypothesis 1 was not supported. The data did not indicate a positive correlation between each measure of academic functioning and total FPQ. However, total FPQ was positively correlated to the grade point average (r = .21, p < .05). Grade point average was a measure of the children's aggregate score on math and reading, which was obtained on the basis of their homework and tests. Although the CAT was somewhat related (r = .15, p > .05) to total FPQ, teacher ratings of the children were unrelated (r = .01, p > .43).

Hypothesis 2: Each of the subtotal scores of the Family Processes of acceptance, support, cohesiveness, and ability to solve problems will be positively correlated to each measure of academic functioning.

The relationship of each of the subprocess of FPQ and each measure of academic functioning was assessed using Pearson's correlation. According to the results in Table 8, this hypothesis was only partially supported; some, but not all of the subprocesses were significantly correlated with the dependent variables.

Table 8

Pearson Correlation Coefficients Between Subprocesses and Each Measure of Academic Functioning

N = 86

Variable	GPA	CAT	TCHRATE
FPQ ACCEPTANCE	.17	.10	.07
FPQ SUPPORT	.24*	.24*	.13
FPQ COHESIVENESS	.13	.11	-.03
FPQ PROBLEM SOLVE	.12	.05	-.07

FPQ = Family Process Questionnaire

GPA = Grade Point Average

TCHRATE = Teacher Rating

*$p < .05$

The correlation between family acceptance and three indices of academic functioning were positive, but did not reach significance. The subprocess of family support showed significant relation with GPA (r = .24, p < .05) and CAT (r = .24, p < .05), but not with Teacher Rating (r = .13, p > .05). The subprocess of family cohesiveness and ability to solve problems was related positively with GPA and CAT, and negatively with Teacher Rating. However, none of these correlations was significant.

Hypothesis 3: The total score on the subprocess of ability to solve problems would be most useful in predicting the overall academic functioning, as indicated by the composite measures of grade point averages, teachers' rating of classroom functioning, and scores on California achievement tests.

For the purposes of this hypothesis, all 3 measures of academic functioning were converted into standardized scores and combined to create a single dependent variable (ZACATOT). This composite variable was regressed on the four independent variables in a hierarchical procedure.

The variable of ability to solve problems was entered first, as it was hypothesized to be most useful in predicting total academic functioning. This variable was followed by the variables of cohesiveness,

support, and acceptance. Resulting data for this hypothesis are presented in Table 9.

As indicated in Table 9, the ability to solve problems did not prove to be the most useful in predicting the dependent measure; that is, academic functioning. Only a small correlation (R = .03, p > .05) was observed between this process and academic functioning, which accounted for less than 1% of the total variance. With the addition of the family cohesiveness variable to the regression equation, the multiple correlation coefficient remained nonsignificant (r = .08, $F(2.81)$ = .29, p > .05). Upon entering the variable of family support, however, significant results were observed. This variable accounted for 9% of the variance (r = .30, $F(3,80)$ = 2.82, p < .05). The addition of the fourth variable, family acceptance, did not increase the R^2 and no significant multiple correlation was found. When all the variables were entered into regression equations, the variable of support remained a significant predictor of academic functioning (Beta = .38, t = 2.56, p < .05).

Table 9

Significant Predictors of Academic Adjustment Using Hierarchical Multiple Regression Analysis

N = 84

Variable	R	R^2	B	Beta	F
FPQ PROBLEM SOLVE	.03	.00	.01	.03	.08
FPQ ACCEPTANCE	.08	.00	.02	.08	.29
FPQ SUPPORT	.30	.09	.18	.39	2.82*
FPQ COHESIVENESS	.31	.09	.02	.05	2.14
Constant = -6.429					

FPQ = Family Process Questionnaire

*$p < .05$

Another multiple regression was carried out to analyze the significance of the variable of family support. The variable of family support was entered first into the equation to determine its separate contribution. The remaining three variables were entered as a group on the second step. Table 10 presents the data. As indicated in Table 10, the variable of family support accounted for 7% of the variance in prediction of total academic functioning of the child. An even more significant relationship was uncovered between family support and the child's academic adjustment when only this variable was used as a predictor ($\underline{R}$ = .26, $\underline{F}(1,82)$ = 6.43 $\underline{p}<.01$). The addition of three other variables raised the R^2 by only 2 percent. However, the multiple correlation, including all the four variables into the prediction equation, did not remain significant ($\underline{R}$ = .31, $\underline{F}(4.79)$ = 2.14 P>.05).

In summary, Hypothesis 3 was not supported. Family support, not the family ability to solve problems, was the most significant predictor of the learning disabled children's total academic functioning.

Table 10

Significant Predictors of Academic Adjustment Using Hierarchical Multiple Regression Analysis

N = 84

Variable	R	R^2	B	Beta	F
FPQ SUPPORT	.26	.07	.12	.27	6.43**
FPQ ACCEPTANCE	.31	.09	.02	.05	2.14
FPQ PROBLEM SOLVE			.06	.16	
FPQ COHESIVENESS			.02	.09	
Constant = -6.429902					

FPQ = Family Process Questionnaire

*$p < .01$

Hypothesis 4: The total scores on the measures of family processes (acceptance, support, cohesiveness, and ability to solve problems) will be positively correlated with self-concept and adaptive behavior, and negatively related with problem behavior.

This hypothesis was supported. Each measure of socio-emotional functioning was found to be significantly related to total FPQ. A significant positive correlation was observed between total FPQ and adaptive functioning (r = .22, p < .05), problem behavior (r = .-30, p < .01), and self-concept (r = .22, p < .05). The problem behavior had the strongest correlation, while adaptive behavior and self-concept were also significantly related to the total FPQ score.

Hypothesis 5: Each of the subtotal scores of the family processes (acceptance, support, cohesiveness, and ability to solve problems) will be positively correlated with measurements of self-concept and adaptive behavior, and negatively related with problem behavior.

As indicated by Table 11, this hypothesis was partially supported. The subprocess of family acceptance was related inversely to problem behavior (r = -.21, p < .05). Nonsignificant relationships were observed between the process of acceptance and the

Table 11

Pearson Correlation Coefficients of Subprocesses of FPQ and Measures of Socio-Emotional Functioning

Variable	ADAPTIVE BEHAVIOR	PROBLEM SOLVE	SELF-CONCEPT
FPQ ACCEPTANCE	.10	-.21*	.16
FPQ SUPPORT	.30***	-.42***	.29**
FPQ COHESIVENESS	.15	-.20*	.08
FPQ PROBLEM SOLVE	.15	-.16	.20*

FPQ = Family Process Questionnaire

*** $p<.001$

** $p<.01$

* $p<.05$

dependent variables, adaptive behavior and self-concept. Family cohesiveness was correlated inversely with problem behavior (r = -.20, p < .05). The subprocess of family ability to solve problems showed positive relationship with the child's self-concept (r = .20, p < .05). Like other processes, it also correlated negatively with problem behavior, but did not reach significance (r = -.16, p > .05).

The strongest relationships were observed between the subprocess of family support and all three dependent measures of socio-emotional functioning. Significant relationships were noted between family support and the child's adaptive behavior (r = .30, p < .001), family support and the child's problem behavior (r = -.42, p < .001), and family support and the child's self-concept (r = .29, p < .01). As predicted, all the processes were related negatively to the child's problem behavior. In summary, the subprocess of family support displayed significant relationships with each of the dependent measures, however other family processes were related to only one of the socio-emotional measures.

Hypothesis 6: The total scores on the subprocess of cohesiveness would be most predictive in the overall academic and socio-emotional adjustment indicated by the composite scores representing both academic and

socio-emotional functioning.

For the analysis of this hypothesis, all six measures of academic and socio-emotional functioning were standardized and combined into a single measure. This composite variable was regressed on the four independent variables using hierarchical procedures. The variable of family cohesiveness, which was hypothesized to be most predictive of overall adjustment, was entered first. This was followed by the variables of family acceptance, support, and ability to solve problems.

As indicated in Table 12, family cohesiveness did not turn out to be the most useful in predicting a child's overall adjustment. An R coefficient of .16 ($p > .05$) was observed between the process of family cohesiveness and the child's index of overall adjustment. Family cohesiveness accounted for only 2% of the explained variance. The addition of family acceptance and ability to solve problems did not produce a significant multiple correlation. The process of support, however, turned out to be the most predictive ($R = .43$, $F(4,79) = 4.49$, $p > .01$), accounting for 18% of the explained variance. The Beta, was highly significant only in the case of family support ($B = .50$, $T = 3.67$, $P < .001$). Another multiple regression was calculated to determine the

Table 12

Significant Predictor of Total Academic and Emotional Adjustment Using Hierarchical Multiple Regression Analysis

N=84

Variables	R	R^2	B	Beta	F
FPQ COHESIVENESS	.16	.02	.08	.16	2.19
FPQ ACCEPTANCE	.21	.04	.13	.16	2.03
FPQ PROBLEM SOLVE	.22	.05	.04	.07	1.45
FPQ SUPPORT	.43	.18	.42	.50	4.49**
Constant			-18.337587		

FPQ = Family Process Questionnaire

**p>.01

significance of family support which was entered first into the regression equation. The remaining three variables were entered as a group on the second step. Table 13 presents the data. As Table 13 indicated, the variable of family support accounted for 17% of the explained variance. The multiple regression was highly significant (R = .42, $F(1,82)$ = 17.60, p < .001). The addition of three other variables increased R^2 only by .01. The multiple correlation remained significant (R = .42, $F(4,79)$ = 4.35, p < .01). However the Beta was not significant for any of the additional variables. In summary, the variable of family support was the most useful in predicting the overall adjustment of the learning disabled child.

Comparison of Demographic Variables Between Consenting and Non-Consenting Families

Because of the high level of elective participation, differences between consenting and non-consenting families were studied. As described earlier, 450 families were contacted and asked to participate in the study but only 129 consented. However, some data were available concerning fifty-five families who were contacted but did not consent. This data included child's gender, level of class placement, parents' marital status and socio-economic status.

Table 13

Significant Predictor of Total Academic and Emotional Adjustment Using Hierarchical Multiple Regression Analysis

N=84

Variables	R	R^2	B	Beta	F
FPQ SUPPORT	.42	.17	.21	.42	17.60***
FPQ COHESIVENESS	.42	.18	-.02	.07	4.35**
FPQ ACCEPTANCE			-.00	-.01	
FPQ PROBLEM SOLVE			-.01	-.00	
Constant			-11.907685		

FPQ = Family Process Questionnaire

***p>.001

**P>.01

The data were analyzed to determine if the consenting and non-consenting families differed significantly with respect to any of these variables. Chi-square analyses and t-test procedures were used to analyze the data. The data and analysis results are summarized in Table 14. The table illustrates that no significant differences were found between the two groups of families (consenting and non-consenting) in the variables of gender and levels of class placement. However, significant differences were found in the families' SES ($t = -2.47$, $p < .05$). The children from non-consentingfamilies formed a lower SES group in comparison to children from the consenting group.

A chi-square analysis was performed to study the difference between consenting and non-consenting families with respect to marital status. There was no significant difference between the two groups ($X^2 = 4.04$, df(4), $p > .05$). However, these results may not be reliable because sixty percent of the cells had expected frequency counts less than 5. The cell frequencies revealed that eighty-four percent of the total population came from intact homes; eighty-seven percent of the non-consenting group and eighty-one percent of the consenting group formed intact families. Two percent of the families in the non-consenting group and three percent in the consenting group were

Table 14

Variables, Groups, N, Mean, Standard Deviation, Range, Degrees of Freedom and T Values in Consenting and Non-Consenting Groups of Families

Non-Consenting Group = 0
Consenting Group = 1

Variable	Group	N	Mean	Standard Deviation	Range	DF	T
Gender	0	55	1.36	.48	1.00-2.00		
	1	94	1.40	.49	1.00-2.00	147	-0.48
Level of Class Placement	0	55	1.94	.10	1.00-3.00		
	1	93	1.83	.07	1.00-3.00	146	0.41
SES	0	48	48.29	23.07	5.00-93.00		
	1	93	58.23	21.79	15.00-93.00	139	-2.51*

DF = Degrees of Freedom

SES = Social Economic Scale

*** $p<.001$

** $p<.01$

* $p<.05$

separated. Nine percent of the families in the non-consenting group and twelve percent of the families in the consenting group were divorced. Zero percent of the non-consenting families and three percent in the consenting group were widowed. Two percent of the non-consenting families and none of the consenting group came from single families. In conclusion, there were no significant differences in the marital status of the consenting and non-consenting families.

Additional Analyses

These analyses focused on two issues. First, the relationship between IQ score and family support was investigated. Second, the relationships among family support and other family processes were investigated. Multiple regression analysis and path analysis were the main procedures applied.

1. IQ and the Variable of Support

As stated previously, the three measures of academic functioning intercorrelated strongly. Pearson correlation coefficients relating IQ and these three measures revealed that a significant correlation existed between CAT and IQ (r = -.29, p > .01), and between Teacher Rating and IQ (r = .29, p < .01). A significant relationship was also discovered between the variable of family support and the child's IQ

(r = .21, p < .05). However, no significant relationship was found between IQ and GPA (r = -.28, p > .05). A hierarchical multiple regression analysis was performed to assess the contribution of IQ in predicting academic adjustment and to determine how IQ affected the contribution of the support variable. As indicated by Hypothesis 3, support was most useful in predicting academic adjustment. Table 15 presents the data and results. A composite score involving three academic indices (ZACATOT) was regressed on the variables of IQ and family support. As indicated in Table 15, the child's IQ was entered as the first variable. The data show that a significant correlation existed between the child's IQ and the academic performance total (R = .25 $F(1,82)$ = 5.57, p < .05). The variable of IQ alone accounted for 6% of the explained variance. A total of 11% of the variance was accounted for with the combination of IQ and family support. The variable of support made a significant contribution (Beta = .22, t = 2.12, p > .05). In summary, the variable of family support remained significant in predicting academic adjustment in learning disabled children, even after the effect of IQ was controlled.

Table 15

Significant Predictor of Total Academic Functioning Using Hierarchical Multiple Regression Analysis

N = 84

Variable	R	R^2	B	Beta	F
IQ	.25	.06	.04	.25	5.57*
FPQ SUPPORT	.33	.11	.03	.20	5.17**
Constant = -10.034860					

FPQ = Family Process Questionnaire

**P <.01

*P <.05

2.Path Analysis

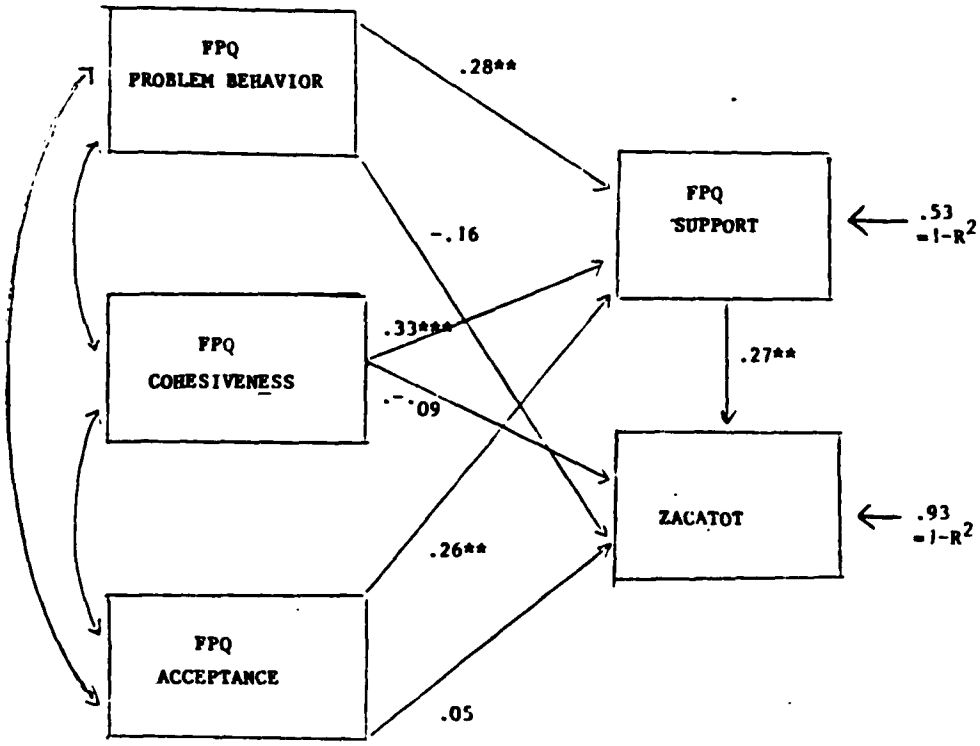
A path analysis was performed to explain the direct and indirect effects of family processes on the academic and socio-emotional adjustment of the children. The theory and literature review indicated that all the processes of family acceptance, support, cohesiveness, and ability to solve problems were significant variables. However, tests of the hypotheses repeatedly revealed that family support was the primary variable that predicted adjustment, both in children's academic and socio-emotional functioning. Based on the proposed theory, it was expected that in order for support to occur in the family, there had to be family cohesiveness in relationships; there had to be family acceptance of the child's learning disability; and the family needed to have the ability to solve problems in order to successfully mediate difficulties in the child.

How, therefore, did the variable of family support relate to the other processes? Path analytic procedures were used to decompose and interpret the linear relationship among variables that led to academic and socio-emotional adjustment. Path coefficients, describing the magnitude of effects between pairs of variables, were obtained in the following manner. The three indices of the children's

academic functioning were combined into a single variable labelled ZACATOT (standardized academic total). This composite variable was regressed on the variable of family support, aceptance,cohesiveness and problem solving. Then, family support was regressed on family acceptance, cohesiveness and problem solving. which in turn was regressed on three variables, family acceptance, cohesiveness, and problem solving.

Figure 1 presents the path diagram and path coefficients illustrating contributions of antecedent family variables to children's academic adjustment. It shows that support is significantly and directly linked to the ZACATOT ($\underline{B}$ = .27, $\underline{p}$ < .01), but the other 3 variables have no direct effect on ZACATOT. When these variables are added the $\underline{R}$ = .31, $\underline{R}^2$ =.09, $\underline{R}^2$ change =.02 and non significant (F = 2.14, p>.05). Thus the hypothesis of these path coefficients = 0 is supported. Significant direct links exist of family ability to solve problems on support ($\underline{B}$ = .25, $\underline{p}$ < .01), and family acceptance on support ($\underline{B}$ = .28, $\underline{p}$ < .01),and cohsiveness on support ($\underline{B}$ = .33, $\underline{p}$ < .0001).
In summary, no significant direct links to children's academic adjustment were found in the various identified family processes, except for the process of support. Family support had significant effect on the other three variables. These three variables accounted

FIGURE 1#



FPQ = Family Process Questionnaire

ZACATOT = Academic Total

*** $p < .001$

** $p < .01$

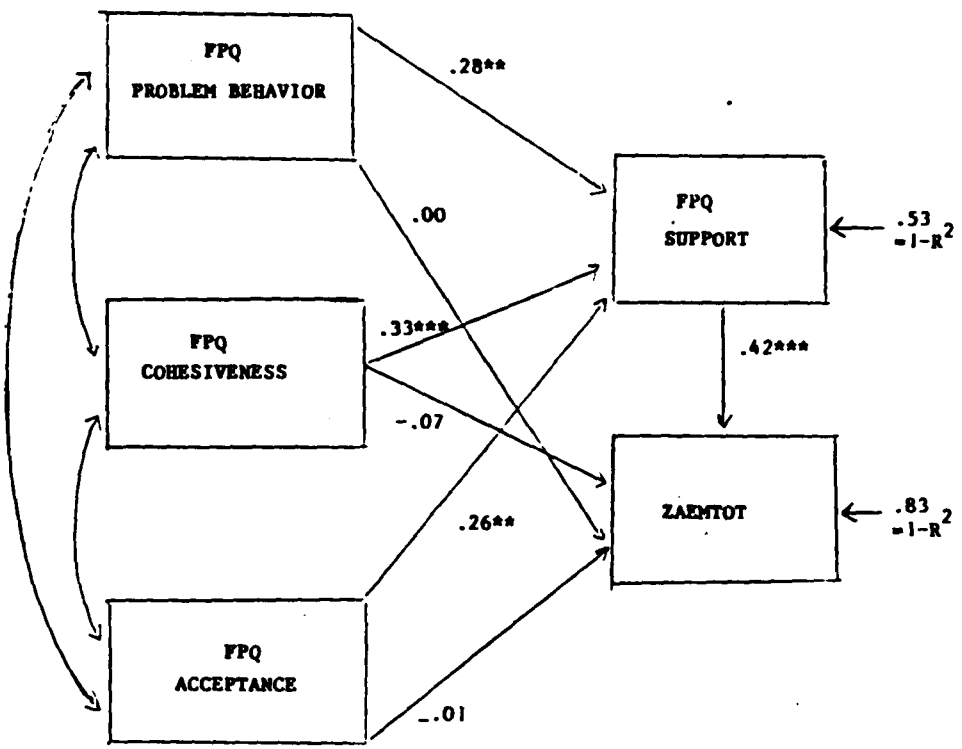
#Numbers indicating direct paths are all Path Coefficients

Path Diagram of Influences of Processes in the Academic Adjust of the Child

for 47% of the variance in support.

In the second model, the three indices of the child's socio-emotional functioning were combined to create a single variable (ZAEMTOT). This composite variable was regressed on the variable of support, acceptance, cohesiveness and ability to solve problems. Then,family support was regressed on family acceptance, cohesiveness, and ability to solve problems. Figure 2 presents the path diagram illustrating contributions of various family processes to children's socio-emotional adjustment. It shows that support was significantly and directly linked to ZAEMTOT ($\underline{B}$ = .42, $\underline{p}$ < .001), but the three other variables have no direct effect on ZAEMTOT. No significant direct link exists between the ZAEMTOT and any other variable. When family acceptance, cohesiveness and problem solving are added, the $\underline{R}$ = .42,$\underline{R}^2$ = .18, $\underline{R}^2$ change =.00 and non significant. However, relationships similar to those described above existed in the process of family support and three other family variables. While the variables of family acceptance, cohesiveness, and ability to solve problems did not have direct effect on academic functioning, they did affect academic adjustment indirectly through their effect on family support. Fifty-three percent of the variance remained unexplained in support and ninety-three percent of the variance was left

FIGURE 2#



FPQ = Family Process Questionnaire

ZAEMTOT = Socio-Emotional Total

*** p > .001

** p > .01

#Numbers indicating direct paths are all Path Coefficients

Path Diagram of Family Processes in the Socio-Emotional Adjust of the Child

unexplained in ZACATOT (academic total), and eighty-three percent of the variance was left unexplained in ZAEMTOT (socio-emotional total) in the PATH model.

Conclusion

The present investigation has shown that the Family Process Questionnaire has reasonably high reliability. The total, as well as each of the subprocesses, met the criteria proposed by Nunnally (1967). Although combined measures of family processes positively related to both indices of academic and socio-emotional adjustment, the specific relationships of each family process to each of the dependent measures did not occur as predicted. The family process of cohesiveness was hypothesized to be the most predictive of the child's overall functioning. However, this hypothesis was not supported by the data. Similarly, the family process of ability to solve problems was expected to be the most predictive of the child's academic functioning, but this hypothesis was not supported either. Instead, the process of family support was found to be the most predictive of the child's overall academic functioning.

Chapter V

Discussion

This present chapter will briefly discuss the psychometric properties of the FPQ questionnaire. This will be followed by an evaluative discussion of the present findings in view of Minuchin's model of the normal family. In addition, findings for each hypothesis in relation to academic and socio-emotional adjustment will be discussed. Major contributions and educational implications of this study will be presented next and finally recommendations for future research will be outlined.

The Instrument Family Process Questionnaire (FPQ)

The present research sought to establish the usefulness of Minuchin's theoretical model with learning disabled families by identifying four different family processes. Scales designed to measure each family process were found to be reliable. The highest alpha was obtained on the subprocess of cohesiveness followed by ability to solve problems, support, and acceptance. This same pattern was discovered during a pilot study where families of adjusted and non-adjusted learning disabled children differed most significantly on the process of cohesiveness and followed by the three other processes.

Confirmation of Minuchin's Model of the Normal Family

One of the purposes of this study was to define and operationalize the constructs and family processes identified by Minuchin and to investigate whether these processes affected learning disabled children's academic and socio-emotional functioning. More specifically, the study addressed the question of whether positive family processes would assist the functioning of children with a learning disability. Previous studies have focused on only dysfunctional family processes.

Minuchin's model postulated that families serve as system which can provide acceptance and support of the child. Moreover families vary in their organizational structure designed to meet the needs of the child. Each of Minuchin's four processes were identified in the families of learning disabled children. These processes,both individually and collectively,were found to relate positively and significantly to objective measures of a child's academic and socio-emotional functioning. However, these processes correlated highly and more significantly with the measures of socio-emotional adjustment than with measures of academic functioning.

The process of family support correlated highly with all measures of the child's functioning, except

one (TCHRATE). Of the four processes, it proved to be the most predictive of the overall academic socio-emotional adjustment of the learning disabled child. However, the results supported Minuchin's entire model of the family because all the four processes were found to be important, although the role of three family processes proved to be indirect. Minuchin (1974) considers family support to be essential for the development of the child. He states:

> The nurturance, healing and support a family offers its members are vital for the individual family member and for the maintenance of family system. A therapist must be aware of the importance of these functions and know how to encourage them. Often he may have to teach the family to confirm each other. He may have to teach parents to respond differently to their children. (p. 156)

Minuchin's assessment of the family system starts with the search for parental support. The parental support is an essential indicator of the family system's overall functioning and it should be used to guide the therapist's interventions. Minuchin illustrates this using the example of a child who is having trouble in school. He suggests the therapist must first assess whether the family is supporting the

child adequately. If the therapist finds that the family is supportive, he should direct his intervention towards the child's functioning in the school context. If the family is not supportive, the therapist's primary intervention should be directed toward the family.

The results of path analysis indicated that the process of support is dependent on the other three family processes (i.e., family acceptance, family cohesiveness and the family's ability to solve problems). This finding is very much in line with Minuchin's theory. When a child is not supported within the family and displays emotional, or academic problems, Minuchin does not suggest that the therapist provide direct support to the child, but rather recommends he focus on changing the structure of the family's system to increase its support for the child. The therapist should encourage parents to take executive positions and complementary roles. Minuchin clarifies the boundaries between the parental and the children's subsystems in order to improve its supportiveness. He views the goal of the therapist as that of restructuring the family. When the process of cohesiveness is absent in the family, parents can't provide consistent support to the child.

In summary, the findings of the present study indicating that family support is the most important process and that this support is built upon the other three processes of the family is in essential agreement with Minuchin's model.

However the specific role of some of the individual family processes did not turn out quite as predicted. For instance, the process of family cohesiveness, acceptance and the ability to solve problems did not significantly correlate to any of the measures of academic functioning as has been theorized. Furthermore, the family process of ability to solve problems was not the most predictive of learning disabled children's overall academic functioning and the process of cohesiveness was not the most predictive of overall adjustment of the learning disabled children as has been expected. These three family processes were, however, indirectly related to the child's functioning via the process of family support. The reason for the lack of expected results will be discussed later in the chapter with regard to each hypothesis. At this juncture three important points need to be considered which may have generally influenced the results of this study.

First, contrary to the samples chosen for Minuchin's research, the sample for the present study

represented "optimally functioning" families who were described as "caring and concerned parents" by the school personnel. The sample in this study obtained a high scores on cohesiveness. It seems that under optimal conditions where cohesiveness is already given, "Family support" appears to become the main ingredient that directly influences the learning disabled child's academic and social functioning.

Second, the sample of parents and children in this study was quite homogenous and lacked full range of variability. Most of these families came from high SES background and were intact families. The group of parents who chose to participate in this study was also homogenous. Due to elective participation by parents, only "well functioning families" where children were not experiencing significant emotional problems and families who were intact and cooperative with the school chose to participate in the study. There was a differential drop of families who differed in intensity of the problem. Lower functioning parents did not elect to participate in equal number. This restricted the range of responses. Unfortunately, this restriction in family functioning scores can lead to the underestimation of the size of the effects between family processes and child functioning. However, it is to be noted that in spite of the narrow range,

significant correlations were obtained between certain family processes and child functioning.

Third and finally, although Minuchin's constructs pertain to global family processes. Family measures used in this study were highly specific to learning disabled children and their families. Minuchin primarily focuses on the concept of family structure. The definition and explanation of his concept of acceptance or belongingness is only one of the benefits provided by the family, however, he does not describe exactly what families need to do to promote a sense of belongingness. Similarly, Minuchin talks about family adaptation, but only in abstract systemic terms. He does not describe behaviorally what families need to do to adapt or to solve the problems created by the learning disabled child. In essence, his constructs are not well operationalized. By defining these abstract concepts operationally and measuring them by standardized instruments, this study has uncovered empirical data which can be used to build upon Minuchin's model of family. Based on Minuchin's verbal description, his model could be depicted as:

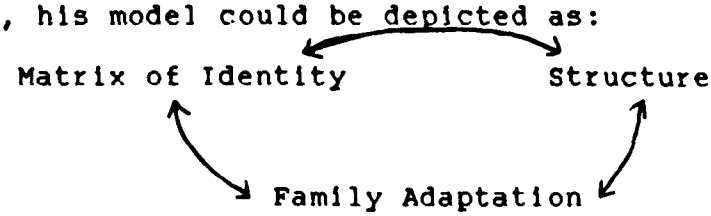


Figure 3. Minuchin's model of the normal family.

A bi-directional relation is thus assumed among these three elements. A shortcoming of this model is that it is not predictive of specific child outcomes and it does not indicate the specific role of each of the four key family processes. The present research offers a basis for a new formulation:

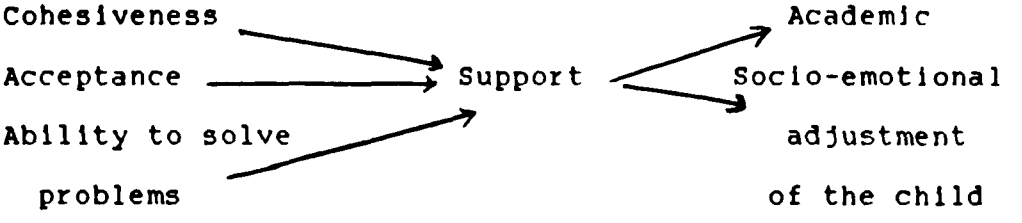


Figure 4. New formulation of Minuchin's model.

In the proposed model, each of the family processes are expressedly depicted and their causal role is described. One advantage of this model is that it directs the users to specific antecedent family processes when family support is lacking. Other advantages of the proposed model are that it facilitated the operationalizing of many of Minuchin's key family processes, measuring these processes through standardized instruments, and finally it permitted a causal role to each of the family processes to be tested.

Academic Functioning and Family Processes

Academic adjustment of learning disabled children was measured using their combined grade point averages (GPA) in reading and math, their combined scores on the California Achievement Test (CAT) in math and reading, and a teacher's rating (TCHRATE) of the child's functioning in math and reading. All three measures of academic functioning correlated positively with each other. However, they tapped different aspects of a child's academic functioning. The positive influence of the family's involvement on the child's educational functioning and academic achievement is not new (Weiss, J., 1969). This study revealed that when a learning disabled child's academic adjustment is assessed through several measures, their relationship to family processes is much more complex than initially envisioned.

For example, hypothesis 1 predicted that the total score on the FPQ would positively correlate to each of the measures of academic functioning. The data revealed that the total FPQ score positively correlated only to the measure of GPA. Positive but not significant correlations were observed between total FPQ score and the CAT and TCHRATE. As stated above, GPA was the only measure that had a significant positive correlation with the total FPQ score. There

is reason to suggest this may have been the most appropriate measure to be used with learning disabled children. Many teachers, school psychologists, and learning consultants consulted during this study commented to the present investigator that it was very difficult to define and measure the academic adjustment of learning disabled children. They indicated their belief that GPA was perhaps the best and most sensitive of the three measures. However, it should be noted that GPA measures could only take five values and that a more differentiated measure might be desirable in future research.

It seems that GPA is perhaps the most common and frequently discussed issue during parent-teacher communication with parents. Grades in the present sample represented scores on daily homework assignments. For example, parents communicate with teachers very frequently about missed or uncompleted assignments or when children need special help in some problem areas. Parental support and encouragement to the learning disabled child seems to be influential in finishing daily homework assignments.

Parental processes could not be expected to be as influential in supplementing poor test taking skills and learning deficits, that underlie performance on standardized tests of achievement. Scruggs and Lifson

(1986) state that learning disabled children display specific difficulties in taking tests and require training and specialized conditions (i.e. extra time, test being read to them, etc.) in order to show improvement in these skills. Low correlations observed between parental processes and CAT can be attributed to these facts.

In addition, the teacher's rating (TCHRATE) were not correlated with family processes in this study. A reason for the lack of variability in TCHRATE, in this study, may be due to the fact that the sample of students was very homogenous in their school performance. The students in this study consisted were limited to those who had been classified as PI (Perceptually Impaired). Children who were less than two grades behind with school performance were usually not classified in this category. Instead, children who were much further behind in their academic functioning were classified also as neurologically impaired or emotionally impaired. It may be necessary to study students in the latter categories in order to use teacher rating as an effective measure.

Hypothesis 2 predicted that each of the family processes would correlate positively with each of the measures of academic functioning. This hypothesis was supported only partially. The processes of family

acceptance, cohesiveness, and ability to solve problems did not significantly correlate directly with the measures of academic functioning. The correlation between the process of family acceptance and GPA most closely approached significance, however, only the process of family support achieved significance. It proved to be positively related to GPA and CAT scores, but not to Teacher Ratings.

These results were similar to the findings in Horelick's (1983) study which indicated that acceptance and cohesiveness of the family did not correlate with the child's academic functioning. Family support, on the other hand, was found to be one of the influential predictors of the child's academic functioning (Hartzell & Campton, 1984).

In their study of the relationship between the home environment and school adjustment of learning disabled students, Nihira, Mink and Meyers (1980) concluded that home variables of acceptance, warmth, and affection had no significant direct effect on the child's school adjustment. However these processes were indirectly influential when they were combined with direct parental stimulation variables. The same may be true in the present study where family processes of acceptance, cohesiveness, and ability to solve problem did not directly influence but did have an

indirect effect on the academic functioning of the child.

Hypothesis 3 predicted that a family's ability to solve problems would be the most useful process in predicting the academic adjustment of the learning disabled child. This hypothesis was not supported. Instead the process of family support turned out to be the major predictor of child's overall academic functioning. The contribution of support to the prediction of academic functioning remained significant even after the effect of IQ was partialled out. Apparently, family support is important to learning disabled students regardless of their ability. It should be noted, however, that the results of the pilot study indicated that ability to solve problems was a significant discriminating process between adjusted and non-adjusted families. Horelick (1983) reported also that the process of decision making positively related to the academic functioning of the child. The process of family's ability to solve problems is derived from Minuchin's construct of adaptability. It reflects the family's efforts to adapt and resolve the stresses related to given situations.

The items measuring this subprocess specifically tap parental efforts to understand the specific needs of their learning disabled child, to provide special

help, develop new strategies to compensate for the deficit, and to help the child to organize him/herself to follow up on school work. According to the present data, such parental behaviors and attitudes did not significantly influence the children's Grade Point Averages, CAT scores, or teacher rating.

In summary, the process of support was most influential in predicting overall academic functioning in the learning disabled child. This family process also seems to be most influential in the every day academic functioning (indicated by GPA) and the general achievement (indicated by CAT).

Socio-emotional Functioning and the Family Processes

Socio-emotional functioning of the children was measured using scores on the Piers-Harris Self Concept Scale (SELF-CON), and the scores on Adaptive Behavior (ADAP BEH) and Problem Behavior (PRB BEH) taken from Teacher Report Form (TRF). Surprisingly, this comprehensive assessment of the child's socio-emotional functioning revealed very little problem behavior among learning disabled children in the sample, but rather adaptive behavior and good self-concepts. It was expected that all family processes, collectively as well as individually, would positively correlate with ADAP BEH and SELF-CON and negatively correlate with PRB BEH.

More specifically, hypothesis 4 predicted that total FPQ would positively correlate with the child's adaptive behavior and self concept and relate negatively to the child's problem behavior. The present results supported the hypothesis, the strongest of the two relationships in the present study was between family processes and the absence of problematic behavior in the child. Apparently family processes might reduce the frequency of problematic behavior in learning disabled children. However, these processes also improve these youngsters self concepts and acquisition of adaptive skills as well.

Hypothesis 5 predicted that each of the family processes would correlated positively with children's self concept and adaptive behavior. It further predicted that each of the family processes would also correlate negatively with the child's problem behavior. The results only partially supported the hypothesis. Only the family process of support significantly correlated with each dependent variable as predicted. The processes of family acceptance and cohesiveness had a significant negative correlation with the incidence of problem behavior by these children. The family process of ability to solve problems had only a significant correlation with the youngster's self concept. These results were not in agreement with some of the previously cited studies. For instance, Horelick

(1983) found a significant correlation between the family process of cohesiveness (which she labeled as affective structure) and social adjustment of the learning disabled child. However, Horelick did not measure the child's social adjustment using formal instruments and thus it is hard to compare her results to those of the present study.

The present data, however, uncovered a complex relationship between various family processes and the learning disabled child's functioning. The relationship of each family process to various aspects of the child's socio-emotional functioning is described in Figure 5.

	Indicators of Socio-emotional Adjustment of the Child		
	PROBLEM BEHAVIOR	SELF-CONCEPT	ADAPTIVE BEHAVIOR
Family Processes			
Acceptance	X		
Support	X	X	X
Cohesiveness	X		
Ability to Solve Problems		X	

Figure 5. Family support and socio-emotional adjustment of the learning disabled child.

Figure 5 indicates how each family process affected a different aspect of the child's socio-emotional functioning. The relationship between cohesiveness and child behavioral has been the focus of Cole and Morrow (1976), Minuchin (1967) and Patterson and Fleishman (1979). Lack of cohesiveness, (including unclear rules and roles, poor interpersonal relationship) have been found to be related to delinquency and behavior problems in the child. The present finding supports this trend since the presence of family cohesiveness was negatively related to behavior problems in the child. However, family cohesiveness was not related to self-concepts and adaptive behavior among learning disabled children.

The process of family support in this study involved systematic attempts on the part of the family to build up self-esteem in learning disabled children by providing them with opportunities to succeed, by enabling them to develop peer relationships, by making them feel special. The present study revealed that family support not only negatively correlated with problem behavior in learning disabled children but positively influenced both the self-concept and adaptive behavior.

This finding corroborated those reported in several other studies. For example, Cooper, Holman,

and Braithwaite (1983) found a positive relationship between family support and child self concept. Along with support, a family's ability to solve problems also influenced learning disabled children's self concept. Freund and Elardo (1978) found that mothers who assigned socially responsible roles and taught their children to deal with their problems, had learning disabled children with superior social skills and better self concept.

In summary, while all identified family processes, in general, reduce the frequency of behavior problems in the learning disabled child, only some are directly facilitative of better self concept and adaptive skills.

The Process of Cohesiveness and Overall Adjustment of Learning Disabled Child

Hypothesis 6 predicted that the subprocess of family cohesiveness would be most predictive of overall adjustment of the learning disabled child. Data in this study did not support this hypothesis. However, significantly lower scores on cohesiveness were found in those families whose children scored higher on problem behavior compared to those who scored lower. No other significant differences were found in any other measures of academic or socio-emotional functioning.

Cohesiveness in the family refers to structural aspects of the family, and it is the cornerstone of Minuchin's theory. In his view, cohesiveness is related to the rules, roles and boundaries of various family members. Various clinical studies discussed earlier have described the dysfunctional structure in the families of learning disabled children experiencing problems in their academic and socio-emotional functioning. Furthermore Perosa (1980) noted similar dysfunctions in cohesiveness in learning disabled families and in families with psychosomatic children. Finally, the pilot study conducted in the development of FPQ also found this process to be most discriminating between adjusted and non-adjusted families.

One explanation for these seemingly contradicting results is that cohesiveness in the family may or may not be functional depending upon its relationship with other processes which are directly related to the child's functioning. The results of Path Analysis supported this interpretation. The process of family support was directly and significantly related to the outcome measures of the child's academic and socio-emotional functioning. However, in both cases, the process of support, in turn, was strongly influenced by the processes of family acceptance,

cohesiveness and ability to solve problems. Of the three, the process of cohesiveness remained the major contributing process. It can be said that the process of support is important, and support can be given only when there is cohesiveness in the family. This outcome is concordant with Minuchin's emphases.

Significant Differences Between Consenting and Non Consenting families

One of the important findings of this study was that families who consented to participate in this study significantly differed in their socio-economic status from families who did not consent. Non-consenting families came from a lower socio-economic group. These families did not differ on the variables of gender, age of the child, or the marital status of parents. Minuchin studied the structure and dynamics of poor families (Minuchin et al 1967) and stated that these families suffer from systemic weaknesses in their boundaries and structure which make them ineffective in carrying out the basic needs of its members. Consenting to participate in a study requires extra time and effort on the part of the family even though it is only completing a questionnaire. It can be stated that families who are having difficulties in their organizational structure may not choose to expose themselves or may not have the resources to take

on this extra responsibility. Low SES parents groups in general have been found difficult to reach and difficult to train (Patterson, 1977) because of their lack of knowledge and limited resources. Future research with low SES groups is greatly needed, and it may reveal stronger effects than were observed in the present study.

Educational Implications for School Psychologists

This study has identified family processes that are important in the academic and socio-emotional functioning of the learning disabled child. Several authors in the field have suggested the importance of understanding a family's system when making successful interventions with a child. (Bronfenbrenner 1974, Karnes & Lee, 1980). Conoley (1987) says that the school psychologist needs to draw on both theory and research to form effective interventions with the family. School psychologists can utilize this model to provide systemic interventions with learning disabled children and their families.

Carlson and Sincavage (1987) indicated that despite the awareness of the importance of family influences, assessment and intervention practices in school psychology continue to reflect a focus on the individual child. Their reasons were: 1) School psychologists did not fully understand systems theory,

2) School settings provided limited opportunity to conduct parent/family intervention as school authorities were not supportive of such practices.

The model created in the present study is relatively simple to understand and apply. Furthermore, this study provides empirical evidence that family contextual variables are crucial in the adjustment of the child. The results suggest that family support is a key process in influencing learning disabled children's functioning. However, family support was found to depend upon other family processes as well. The present evidence may be used to persuade the school authorities so that it may be productive to involve families in interventions with learning disabled students.

The findings of this study reveal further that all children with learning disabilities have academic problems but not all children with academic problems, necessarily develop secondary emotional problems. The mere presence of a learning disability in a child does not imply dysfunction in a family. On the contrary, certain family processes deflect the negative effect of a learning disability.

This finding implies the need to refrain from stereotyping families with learning disabled children. Certain processes within the family can facilitate

adaptation despite a child's disability. Therefore the focus of school psychologists should shift to how the family deals with the learning disabled child's problems.

The results of this study indicate the processes which are directly related to the learning disabled children's academic and socio-emotional adjustment. The process of support appears to be most significant in facilitating socio-emotional and academic functioning. It is not what parents teach, but how they teach the child, how they view the child's disability, and what they do to build up the child's self esteem that seems most critical. Simply practicing homework or repeating study skills recommended by the teacher or the school may not be sufficient in itself. The values and attitudes of the parental figure toward the child and his/her disability play a very influential role in shaping his/her receptivity to the learning process (Kaslow & Cooper, 1978).

The information obtained from this study not only indicated the usefulness of family assessment measures and intervention techniques with learning disabled children, but also provides direction for interaction with parents. School psychologists, while disseminating and sharing information about their

assessment of the child, can also inform the parents of the specific family processes that are most facilitative to the child's functioning. For instance, parents may not realize the impact of a learning disability on the child's self esteem. The extra stress on the family when the child constantly brings home poor grades or displays behavior problems which require frequent calls to parents may be explained to the parents before the problems develop within the parental and/or sibling dyad. Parents can also be made aware of the child's need for extra support and time in order to deflect the impact of the learning disability as well as what to realistically expect from the child.

The Family Process Questionnaire can provide a non-intrusive and simple way for school psychologists to assess family processes in the family of learning disabled children. If the functioning of a learning disabled child declines, in spite of the school's effort, school psychologists (by using FPQ) may wish to identify processes which are lacking in the family and provide specific intervention. For instance, if a family scores very poorly on cohesiveness, then the parental relationship and family organization becomes the area which requires intervention. Similarly, if a family lacks skills in how to resolve problem, then that becomes their area of need.

Pfeiffer, Gerber, and Reiff (1985) claim that the guiding principle in working with LD students is to restructure dysfunctional parental attitudes and child rearing practices that may be interfering with the learning process. They further state that this should be accomplished in conjunction with classroom based educational remediation. Educational interventions that do not address psychological and familial needs of the child are not as effective. It is incumbent upon school psychologists to take these issues into consideration.

Recommendations for Future Research

The sample for this study was relatively small. It was further hampered by two constraints. First, children in this group were homogenous in terms of their classification, disability and level of academic deficits, and secondly, the group of parents was self-selected, homogenous and largely well-adjusted. This sample of children and parents represented a limited range in terms of their functioning. By virtue of self-selection, children who might be having severe problems and parents who might be having familial difficulties were not included in the study. Because of these restrictions of range, the correlations between the family processes and dependent measures were perhaps underestimated. This restricted sample

does not represent a good test of the model. Future research should be done on a larger sample represented by a wider range of families.

It would be interesting to administer FPQ to families of learning disabled children who are initially identified as having problems in order to investigate how these families use these processes. This would provide discriminant validity for the scale. Presently, significant differences among the adjusted and non-adjusted group were found only on a few of the subprocesses. However, the number of unadjusted children was rather small. For instance, only 5 children out of 85 received consistently low scores on all 3 measure of socio-emotional functioning.

Research should be conducted on the efficacy of specific family interventions which have been determined on the basis of FPQ. For instance, it would be important to see if increasing cohesiveness between the parents led to more support for the child and consequently facilitated child's functioning.

The FPQ can also be compared with other existing scales applied to family systems to see if it provides better or clearer information about the processes in the family of a child with a learning disability. Validation of this scale should be further determined by taking other measures of family processes, i.e.,

family interviews or observing the family in action by giving them actual problems related to the learning disability and the child. The literature is consistent in demonstrating the need for additional measures of family interactions other than self reports (Stoneman & Brody, 1984) to establish the validity of the scale.

The strength of FPQ's validity can be further increased by obtaining the same information from the fathers. This would allow assessment of divergent views from within the family. To date, fathers in general have been neglected and mothers have served as the spokesperson for the families. This approach will also help capture an interactive view of the family in more detail. For instance, if a father describes the family as more supportive than the mother, this reveals the degree of cohesiveness in the family as well. Significant discrepancies in various member's perception can themselves be the source a of child's difficulties and the target for family treatment.

Summary

This research has applied Minuchin's structural model of the family in identifying facilitative processes in the families of learning disabled children. In so doing, the model has become more refined. Four specific family processes have been identified, defined, operationalized and measured

through the development of a questionnaire. Furthermore, the interrelationship of these processes have been identified and the specific role of each process in various aspects of academic and socio-emotional adjustment of the learning disabled child has been delineated. Finally, educational implications and the need for a systemic approach in dealing with the learning disabled child's problems were discussed.

Appendix A

Semi-structured Initial Interview

Questions about parents initial reaction

1. When and by whom was the child diagnosed?

2. At what age did the parents realize the child's difficulties?

3. What was the parent's reaction - mother, father, extended family?

4. If the school did not follow the parents request, what did the parents do?

5. If the child was preschool, what did the parents do?

6. Did the parents blame themselves, feel guilty, or become angry?

7. Was there any prenatal or paranatal difficulties with the child?

8. Did the parents have any previous knowledge of learning disability?

9. If they did not, how did they try to gain more knowledge about what learning disability was?

Questions about the support system to the child

1. Did the parents know exactly how behind their child was academically and socially?

2. Did they know how their child felt about the learning disability?

3. How did the parents build self-esteem in the child?

4. How did the parents make the child feel accepted, respected, and supported?

5. How did the parents take away the sense of failure in education?

6. How did the parents socialize the child?

7. If the family was academically oriented, how did the child "fit in"?

8. How did the parents explain the disability to the child?

9. How do the parents currently perceive the child's disability?

10. Do the parents have any common hobbies or interests with the child?

Questions about teaching organization to the child

1. How did the parents emphasize that it was important to do school work?

2. Did the parents provide a tutor?

3. Did the parents set the time and place for homework?

4. Did the parents let the child escape because he was frustrated?

5. Did the parents read or use outside sources to learn to deal with their child's learning disability?

6. Did the parents join groups as Step, Pet?

7. How did the parents encourage the child to get involved and finish a project?

8. Did the parents themselves have any organizational difficulties?

9. What sort of discipline did the parents employ at home?

10. Was the child on any medication or in any group?

Questions about the family cohesiveness

1. Who was the primary responsible person for the child?

2. Who did most of the work with the child?

3. If only one of the spouses was involved, did the other help?

4. Did the spouses blame each other for being neglectful or overconcerned?

5. Who had the learning disability in the family - mother or father or whose extended family?

6. If there was a conflict, how did they resolve it?

7. How did the parents support each other in terms of the learning disabled child?

8. If they both agree, how did they share the work?

9. If they did not agree, how did they compensate for each other?

10. Who was the disciplinarian in the house?

APPENDIX B

For office use only
School _____ Family_____

FAMILY PROCESS QUESTIONNAIRE

Demographic Information about your Family

1) Mother
   Age_____
   Occupation_____
   Education_____

2) Father
   Age_____
   Occupation_____
   Education_____

3) Child with Learning Disability
   Sex male___ Female___
   Age ____
   Grade ____
   Name of School _____

4) Number of children in the family_____

5) Number of children in the family with the diagnosis of a learning disability_____

6) Is either parent suspected of having a learning disability?
   Yes___No___

7) If you answered Yes to #6 which parent? Mother___ Father Both___

8) Is this a two parent family_____ single parent family___? If single, Divorced___Separated___Widowed___

Please check and follow the underlying procedures for answering questions about your spouse.

1. ( ) If the child is living with his/her natural parents, answer questions about the spouse referring to the natural father.

2. ( ) If you are divorced, but the child maintains active contact with the natural father, answer questions about the spouse referring to the natural father.

3. ( ) If the child is living with a step father who has been a part of the family for a year or more, answer questions about the spouse referring to the step father rather than the real parent who is missing and does not maintain contact with the child.

4. ( ) If there is no contact with natural father or step father leave all questions related to the spouse blank.

5. ( ) Other, please explain: _____

Family Process Questionnaire

Please circle the letter which best represents your response to the following questions.

	Strongly Agree	Agree	Disagree	Strongly Disagree	Non Applicable
1. There is no such thing as learning disability. It is only poor teaching that creates problems in the child.	A	B	C	D	E
2. My child's academic problems are temporary. He/she will grow out of it.	A	B	C	D	E
3. My child has a specific learning disability.	A	B	C	D	E
4. A learning disability can become an embarrassment for the parents.	A	B	C	D	E
5. Parents should discuss the learning disability with their learning disabled child.	A	B	C	D	E
6. Learning disabled children cannot handle responsibility.	A	B	C	D	E
7. Learning disabled children usually do not succeed in a career.	A	B	C	D	E
8. Part of my learning disabled child's problem is because of the way my spouse has treeated him/her.	A	B	C	D	E
9. Learning disabilities affect only a limited area of a child's functioning.	A	B	C	D	E
10. Non-academic success is as important as academic success in our family.	A	B	C	D	E
11. My learning disabled child enjoys learning.	A	B	C	D	E
12. My learning disabled child is not well liked by his/her peers.	A	B	C	D	E

	Strongly Agree	Agree	Disagree	Strongly Disagree	Non Applicable
13. If given the choice, my learning disabled child shows good judgement.	A	B	C	D	E
14. It is hard for my learning disabled child to feel good about himself/herself.	A	B	C	D	E
15. Our family makes special efforts to make my learning disabled child to feel successful in some things.	A	B	C	D	E
16. The school should be solely responsible for the learning disabled child's education.	A	B	C	D	E
17. It is hard to find reasons to praise my learning disabled child.	A	B	C	D	E
18. My learning disabled child knows all his/her strong points.	A	B	C	D	E
19. My spouse has no idea what our child's problems are.	A	B	C	D	E
20. In our family people disagree with each other and still get along.	A	B	C	D	E
21. My spouse is to blame for some of our learning disabled child's problems.	A	B	C	D	E
22. Our learning disabled child creates conflict between myself and my spouse.	A	B	C	D	E
23. My spouse often sides with our learning disabled child against me.	A	B	C	D	E
24. My learning disabled child is the main source of gratification in my life.	A	B	C	D	E
25. In our family we are pretty clear about who is responsible for what.	A	B	C	D	E
26. My spouse is too hard on our learning disabled child.	A	B	C	D	E

	Strongly Agree	Agree	Disagree	Strongly Disagree	Non Applicable
27. My spouse is too easy on our learning disabled child.	A	B	C	D	E
28. The learning disabled child does not need special help.	A	B	C	D	E
29. In our house, homework is considered very important.	A	B	C	D	E
30. I know exactly what type of learning disability my child has.	A	B	C	D	E
31. It is not important for my learning disabled child to be organized about his/her work.	A	B	C	D	E
32. I know the areas in which my child needs help.	A	B	C	D	E
33. My learning disabled child is responsible for his/her homework.	A	B	C	D	E
34. I try to keep an open on going communication with my learning disabled child's teacher.	A	B	C	D	E
35. Parents can help their learning disabled child with his/her homework.	A	B	C	D	E
36. I make special efforts to teach organization to my learning disabled child.	A	B	C	D	E

Please circle the letter which best represents your response to the following questions.

	Always	Often	Seldom	Never	Non Applicable
37. I feel helpless in dealing with my learning disabled child.	A	B	C	D	E
38. I blame myself or my spouse for my learning disabled child's problems.	A	B	C	D	E
39. I found it easy to explain my learning disabled child's problems to my friends or relatives.	A	B	C	D	E
40. I dread conferences with my learning disabled child's teachers.	A	B	C	D	E
41. I don't have as high expectations for my learning disabled child as I do my other children.	A	B	C	D	E
42. I can count on my learning disabled as I can on my other children.	A	B	C	D	E
43. I was the initiator in finding what was wrong with my child.	A	B	C	D	E
44. It is easy to include my learning disabled child in all family activities.	A	B	C	D	E
45. I include my learning disabled child in making some decisions.	A	B	C	D	E
46. I feel disappointed by my learning disabled child.	A	B	C	D	E
47. I find it hard to manage my learning disabled child's behavior.	A	B	C	D	E
48. I have attempted to make my child understand about his learning disability.	A	B	C	D	E
49. I actively seek hobbies and interests that my learning disabled child can enjoy.	A	B	C	D	E

	Always	Often	Seldom	Never	Non Applicable
50. I have taught my learning disabled child how to deal with his/her frustrations about school work.	A	B	C	D	E
51. My learning disabled child knows how to handle his/her peers if they tease about his/her disabilities.	A	B	C	D	E
52. I encourage my learning disabled child to pursue those activities which he/she is good at.	A	B	C	D	E
53. At times I forget that my child has a disability.	A	B	C	D	E
54. My learning disabled child feels that he/she is a special person in our family.	A	B	C	D	E
55. My spouse blames me for being over concerned about our learning disabled child.	A	B	C	D	E
56. My spouse supported me in investigating the reason for our learning disabled child's academic problems.	A	B	C	D	E
57. I am able to discuss and resolve most of my conflicts with my spouce.	A	B	C	D	E
58. In our house we encourage each other to find new ways to deal with our child's learning disability.	A	B	C	D	E
59. My spouce and I stick together in making our children follow the rules in our house.	A	B	C	D	E
60. I can count on my spouse to take over when I am tired.	A	B	C	D	E
61. My spouse finds it very difficult to work with our learning disabled child.	A	B	C	D	E

	Always	Often	Seldom	Never	Non Applicable
62. My spouse does not believe that our learning disabled child has a problem.	A	B	C	D	E
63. I have the primary responsibility for working with our learning disabled child.	A	B	C	D	E
64. I know when my learning disabled child has homework.	A	B	C	D	E
65. Even when it is difficult we make our learning disabled child do his/her school assignments.	A	B	C	D	E
66. It is frustrating to help my learning disabled child with his/her homework.	A	B	C	D	E
67. I have tried to read and learn about learning disability in general.	A	B	C	D	E
68. I keep a record of my learning disabled child's conferences.	A	B	C	D	E
69. I let my learning disabled child know when he/she is making progress.	A	B	C	D	E
70. I look for new ideas to help my learning disabled child.	A	B	C	D	E
71. I have come up with different strategies to compensate for my learning disabled child's deficits.	A	B	C	D	E
72. I have taught my learning disabled child to be responsible about his/her homework.	A	B	C	D	E

THANK YOU

Appendix C

The City University of New York
Ph.D. Program, Educational Psychology
33 West 42 Street
New York, NY 10036-8099

Dear Parent:

I am a graduate student at the City University of New York working on my dissertation. I would appreciate your cooperation in carrying out a valuable research project which will identify what in a family helps a child with a learning disability. This project will entail the following:

1. Mother completing a questionnaire (it takes about 15-20 minutes as per mothers who have completed it) about the processes in the family.

2. Your child's teacher filling out a questionnaire about the child's classroom behavior.

3. Your child answering a questionnaire about his/her self concept (it takes about 10-15 minutes).

All the information obtained will be strictly confidential. As a service to the participating families or other interested families of LD children, I would be happy to conduct a special workshop for the parents which will focus on facilitating family processes.

Please indicate your consent by checking the appropriate space box below so that I may send you the questionnaire.

_____Will participate _____Signature

_____Won't participate, reason why? _____
_____
_____

Thank you very much.

Sincerely yours,

Shashi Jain

References

Achenbach, T.M. (1966). The classification of children's psychiatric symptoms: A factor-analytic study. Psychological Monographs, 80(Whole No. 615).

Achenbach, T.M. & Edelbrock, C. (1983). Manual for child behavior checklist & revised child behavior profile. Burlington, Vt.: University of Vermont, Department of Psychiatry.

Achenbach, T.M. & Edelbrock, C. (1986). Manual for the Teacher's report form & Teacher version of the child behavior profile. Burlington, Vt.: University of Vermont Department of Psychiatry.

Ackerman, N.W. (1958). The psychodynamics of family life. New York: Basic Books.

Alley, G.R., Warner, M.M., Schumaker, J.B., Deshler, D.D. & Clark, F.L. (1980). An epidemiological study of learning disabled and low achieving adolescents in secondary school: Behavioral & emotional status from the perspective of parents & teachers. (Report No. 16). Lawrence, Kansas: University of Kansas, Institute for Research in Learning Disabilities.

Amerikaner, M.J. & Omizo, M.J. (1984). Family Interaction and learning disabilities. Journal of Learning Disabilities, 17(9), 538-543.

Aponte, H.J. & Van Deusen, J.M. (1981) Structural Family Therapy. In A.S. Gurman and D.P. Kniskern (Eds), Handbook of family therapy (pp. 361-403). New York: Brunner/Mazel.

Baldwin, A.L., Kalhorn, J. & Breese, F.M. (1949). The appraisal of Parent behavior. Psychological Monographs, 63(4, Whole No 299).

Barsh, R. (1968). The parents of handicapped child. Springfield, Ill: Thomas.

Baumrind, D. (1968). Authoritarian Vs. authoritative parental control. Adolescence 3, 255-272.

Beaver, W.R. (1977). Psychotherapy & growth. New York: Brunner/Mazel.

Becker, W.C. & Krug, R.S. (1965). The parent attitude research instrument-A research review. Child Development, 35, 329-365.

Blacher, J. (1984). A Dynamic perspective on the impact of a severely handicapped child on the family. In J. Blacher (Ed.) Severely handicapped young children and their families, Research in review (pp. 3-50). Orlando, Fla: Academic Press.

Briard, F. (1976). Counseling parents of children with learning disability. Social Work 57, 581-585.

Bronfenbrenner, V. (1974). A report on longitudinal evaluations of preschool programs, Is early intervention effective? (Vol. 2) Washington DC: U.S. Dept. of Health Education & Welfare.

Bryan. T., Pearl, R., Zimmerman, D. & Matthews, F. (1982). Mother's evaluation of their learning disabled children. The Journal of Special Education, 16(2), 149-159.

Buscaglia, L. (1975). The disabled and their parents: A counseling challenge. Thorofare, N.J.: Charles B. Slack, Inc.

Caplan, G. (1976). The family as a support system. In A. Caplan & M. Killilea (Eds.), Support system and mutual help: Multidisciplinary explorations (pp. 19-36). New York: Grune & Straton.

Carlson, C. (1986). Family assessment. Paper presented at NASP '86 Convention, Hollywood, Florida.

Carlson, C. & Sincavage, J. (1987). Family-oriented school psychology practice: Results of a national survey of NASP members, School Psychology Review, 16(4), 519-527.

Carter, E. & McGoldrick, M. (1980). The family life cycle & family therapy: An overview. In E. Carter & M. McGoldrick (Eds.). The family life cycle: A framework for family therapy (pp. 3-20). New York: Gardner Press.

Chapman, J.W., Boersman, F.J. (1979). Learning disabilities: Locus of control & mother attitudes. Journal of Educational Psychology, 71, 250-258.

Cole, C., & Morrow, W.R. (1976). Refractory parent behaviors in behavior modification training groups. Psychotherapy: Theory, Research, and Practice, 13, 162-169.

Conoley. J.C. (1987). School & families: theoretical and practical bridges. Professional School Psychology. 2(3), 191-203.

Cooper, J.E. Holman, J. & Braithwaite, V.A. (1983). Self esteem & Family cohesion. The child's perspective and adjustment. Journal of Marriage & Family, 45(1), 153-159.

Cromwell, R.E., Olson, D.H. (Eds.). (1975). Powers in families. New York: Sage Publications.

Cummings, S.T. (1976). The impact of the child's deficiency on the father; a study of fathers of mentally retarded & of chronically ill children. American Journal of Orthopsychiatry, 46, 246-255.

Drotar, D., Baskiewicz, A., Irvin, N., Kennell, J. & Klaus, M. (1975). The adaption of parents to the birth of an infant with a congenital malformation: A hypothetical model. Pediatrics, 56, 710-717.

Duncan, O.D. (1961). A socio-economic index for all occupations. In A.J. Reiss (Ed.), Occupation & social status (pp. 263-275). New York: Free Press.

Edgarly, R.F. (1975). The effectiveness of parent counseling in the treatment of children with learning disabilities. Dissertation Abstract International, 36(3A), 1301.

Edelbrock, C., Achenbach, T.M. (1984). The teacher version of the child behavior profile: I. Boys aged 6 - 11, Journal of Consulting & Clinical Psychology, 52, 207-217.

Epstein, N.B., Baldwin, LB. & Bishop, D.S. (1983). McMaster Family Assessment Device. Journal of Marital & Family Therapy, 9(2), 171-180.

Faerstein, L.M. (1981). Stress & coping in families of learning disabled children: A Literature review. Journal of Learning Disabilities, 14(7), 420-423.

Featherstone, H. (1980). A difference in the family: Life with a disabled child. New York: Basic Books.

Ferriera, A.J. (1963). Decision-making in normal & pathologic families. Archives of General Psychiatry, 8, 68-73.

Ferriera, A.J., Winter, W.D. (1968). Information exchange & silence in normal and abnormal families. Family Process, 7, 252-256.

Fincham, F., Barling, J. (1978). Locus of control & generosity in learning disabled, normal achieving & gifted children. Child Development, 49, 530-533.

Freeman, M. (1970). A comparative analysis of learning disabilities & mothers of children who are achieving normally. Unpublished dissertation, Northwestern University.

Freud, A. (1965). Normality & pathology in childhood assessment of development. New York: International University Press.

Freund, J.H., Bradley, R.H., Caldwell, B.M. (1979). The home environment in assessment of learning disabilities. Learning Disability Quarterly, 2, Fall 39-52.

Freund, J.H., Elarado, R. (1978). Maternal behavior and family constellation as predictors of social competence in learning disabled children. Learning Disability Quarterly, 1(3), 80-86.

Gallagher, J. (1956). Rejecting Parents? Exceptional Children, 22, 273-294.

Gardner, R.W. (1971). Therapeutic communication with children. The mutual story telling technique. New York: Asonsen.

Goyette, C.H., Conners, C.K., Ulrich, R.F. (1978). Normative data on revised Conner's parent & teacher Rating Scales. Journal of Abnormal Child Psychology, 6, 221-236.

Grunebaum, M.G., Hurwitz, I., Prentice, N.H. & Sperry, B.M. (1962). Fathers of sons with primary neurotic learning inhibition. American Journal of Orthopsychiatry, 32, 462-472.

Hall, M.D. (1963). Parent-child interactions in latency age boys with learning disabilities. Unpublished doctoral dissertation, University of Minnesota.

Hallahan, D.P., Gajjar, A.H., Cohen, S.B. & Tarver, S.G. (1978). Selective attention and locus of control in learning disabled & normal children. Journal of Learning Disabilities, 11, 231-236.

Harris, J.C., King, S.L., Reifler, J.P. & Rosenberg, L.A. (1984). Emotional and learning disorders in 6 - 12 years old boys attending special schools. Journal of American Academy of Child Psychiatry. 23, 431-437.

Hartzell, H.E. & Compton, C. (1984). Learning disability: 10 year follow-up. Pediatrics, 74(6), 1058-1064.

Horelick, L.J. (1983). Characteristics of families with a learning disabled child from a system's perspective. Unpublished doctoral dissertation, Yeshiva University, N.Y.

Johns. N. (1971). Family reactions to the birth of a child with a congenital abnormality. Medical Journal of Australia, 1, 277-282.

Johnston, C.L. (1984). Educational therapy: Past perspectives, current practices & a proposal for change. Journal of Learning Disabilities, 17(4), 200-203.

Jones, C.J. (1985). Self concept and handicapped students. Remedial & Special Education. 6,(5), 32-36.

Karnes, M.B. & Lee, R.E. (1980). Involving parents in the education of handicapped children. In M.J. Fine (Ed.), Handbook on parent education (pp. 201-223). New York: Academic Press.

Kaslow, F. & Cooper, B. (1978). Family therapy with the learning disabled child & his/her family. Journal of Marriage & Family, 4(1), 41-49.

Kohut, H. (1971). The analysis of the self. New York: International University Press.

Korn, S.J., Chess, S. & Fernandez, P. (1978). The impact of children's physical handicaps on marital quality & family interaction. In R.H. Lerner & C.B. Spanier (Eds.), Child influences in marital & family interactions.: A life span perspective monograph (pp. 299-326). Bell Flower, CA: Academic Press.

Knights, R.M., & Bakker, D.J. (1976). The neuropsychology of learning disorders: Theoretical approaches. Baltimore: University-Park Press.

Kronick, D. (1976). Three families. San Rafael, CA: Academic Therapy Publications.

Kronick, D. (1981). Social development of learning disabled person. San Francisco: Josey Bass.

Levy, D.M. (1943). Maternal overprotection. New York: Columbia University.

Lowman, J. (1971). Measurement of family affective structure. Journal of Personality Assessment, 44, 130-141.

Lytton, H. (1971). Observational studies of parent-child interaction: A methodological review. Child Development, 43, 651-658.

McCall, R.B. (1983). Environmental Effects of Intelligence: The forgotten realm of discontinuous non-shared with in family factor. Child Development, 54, 408-415.

Mead, G.H. (1934). Mind, self & society. Chicago: University of Chicago Press.

Michaels, J., Schucman, H. (1962). Observations on the psychodynamics of parents of retarded children. American Journal of Mental Deficiency, 66, 568-573.

Minuchin, S. (1974). Families & family therapy. Cambridge, MA: Harvard University Press.

Minuchin, S., Baker, L., Rosman, B., Liebman, R., Milman, L., & Todd, T. (1975). A conceptual model of psychosomatic illness in children. Archives of General Psychiatry, 32, 1031-1038.

Minuchin, S. Mantalvo, B., Gurney, B., Rosman, B. & Schumer, F. (1967). Families of the slums. New York: Basic Books.

Minuchin, S., Rosman, B., & Baker, L. (1978). Psychosomatic families. Cambridge, MA: Harvard University Press.

Mishler, E.G., Waxler, N.E. (1968). Interaction in families. An experimental study of family processes & schizophrenia. N.Y.: John Wiley.

Moos, R.H., & Moos, B.S. (1976). A typology of family social environments. Family Process, 15, 357-371.

Neifert, J.F., & Gayton, W. (1973). Parents & home program approaches in the remediation of learning disabilities. Journal of Learning Disabilities, 6, 85-89.

Nicholas, M.P. (1984). Family therapy concepts and methods. New York: Gardner.

Nihira, K., Meyers, C.E. & Mink, I.T. (1980). Home environment, family adjustment, and the development of mentally retarded children. Applied Research in Mental Retardation, 1, 5-24.

Nihira, K., Mink, I.T. & Meyers, C.E. (1981). Relationship between home environment and school adjustment of TMR children. American Journal of Mental Deficiency, 86(1), 8-15.

Nunnally, J.C. (1967). Psychometric theory. New York: McGraw Hill.

Olson, D.H., Bell, R. & Portner, J. (1978). Family adaptability & cohesion evaluation scales. Unpublished manuscript, University of Minnesota.

Olson, D.H., Portner, J. & Lavee (1985). Faces III. Available from family social science, University of Minnesota, St. Paul, MN 55108.

Osman, B.B. (1979). Learning disability: A family affair. New York: Warner Books.

Osman, B.B. (1982). No one to play with. The social side of learning disability. New York: Random House.

Owen, R.W., Adam, P.A., Forrest, T., Stolz, L.M., Fisher, S. (1971). Learning disorders in children: Sibling studies. Monographs of the society for research in child development, 36(Whole No. 44).

Paine, R.S. (1965). Organic Neurological factors related to learning disorders. In J. Hellmuth (Ed.). Learning disorders, (Vol. 1), (pp. 1-29), Seattle, Washington: Special Child Publications.

Patterson, G.R. (1974). Interventions for boys with conduct problems: Multiple setting, treatments and criteris. Journal of Consulting and Clinical Psychology, 42, 471-481.

Patterson, G.R., & Fleishman, M.J. (1979). Maintenance of treatment effects: Some considerations concerning family systems and follow-up data. Behavior Therapy, 10, 168-185.

Pearl, R., Bryan, T., & Donahue, M. (1980). Learning disabled children's attribution for success & failure. Learning Disability Quarterly, 3, 3-9.

Peck, B.B., Stackhouse, T.W. (1973). Reading problems & family dynamics. Journal of Learning Disabilities, 6(7), 43-48.

Peiffer, S.J., Gerber, P.J., & Reiff, H.B., (1985). Family oriented interventions with the learning disabled child. Journal of Reading, Writing and Learning Disabilities International. 1(4), 63-69.

Perosa, L. (1980). The development of a questionnaire to measure Minuchin's structural family concepts & the application of his psychosomatic model to learning disabled families. Unpublished doctoral dissertation, State University Buffalo.

Piers, E.V. (1969). The Piers-Harris children's self concept scale. (The way I feel about myself). Nashville, Tennessee: Counselor Recording & Tests.

Piers, E.V. (1977). The Piers-Harris children's self concept scale. Research Manograph No 1. Nashville, Tennessee: Counselor Recording & Tests.

Pinsof, W.M. (1981). Family therapy process research, In A.S. Gurman & D.P. Kniskern (Eds.), Handbook of family therapy (pp. 699-742). New York: Brunner/Mazel.

Porter, B.M. (1954). Measurement of Parental acceptance of children. Journal of Home Economics, 46, 176-182.

Portner, J. (1980). Parent-adolescent interaction of families in treatment. Unpublished doctoral dissertation. University of Minnesota, St. Paul.

Rappaport, S.R. (1973). The brain damage syndrome. In Sapir, S., Nitzburg, A. (Eds.), Children with Learning Problems. New York: Burner Mazel, 252-256.

Reiss, D. (1971). Varieties of consenouel experience: III. Contrasts between families of normals, delinquents, schizophrenics. Journal of Nervous and Mental Diseases, 152, 73-95.

Riskin, J. (1982). Research on "non labeled" families: a longitudinal study. In F. Walsh (Ed.), Normal family processes (pp. 67-93). New York: The Guilford Press.

Riskin, J. & Faunce, E. (1972). An evaluative review of family interaction research, Family Process, 11(4), 365-455.

Rollins, B.C., Thomas, D.L. (1975). A theory of parental power & child compliance. In R. Cromwell & D. Olson (Eds.), Power in families (pp. 38-60). Beverly Hills, CA: Sage Publications.

Ro-Trock, L.G. (1979). A study of the characteristics of families with a severely handicapped child from a systems perspective. Unpublished doctoral dissertation, University of Missouri.

Rothbaum, F. (1986). Patterns of maternal acceptance. Genetic, Social & General Psychology Monographs, 112, 4, 435-458.

Rourke, B.P. (Ed). (1985). Neuropsychology of learning disabilities. Essentials of subtype analysis. New York: The Guilford Press.

Rowe, D.C., Plomin, R. (1981). The importance of non-shared (E1) environmental influences in behavioral developments. Developmental Psychology, 17, 517-531.

Russell, C.S. (1979). Circumplex model of marital & family system: III Empirical evaluation with families. Family Process, 18, 29-45.

Saenger, A. (1957). The adjustment of severely retarded adults in the community. Albany, NY: Interdepartmental Health Resource Board.

Saligman, M. (Ed). (1983). The family with a handicapped child: Understanding & treatment. Orlando, Florida: Grune & Straton.

Scheck, D.C., Emerick, R. & El-Assal, M.M. (1973). Adolescent's perception of parent-child relations and the development of internal-external control orientation. Journal of Marriage & Family, 35, 643-654.

Scruggs, T.E. & Lifson, S. (1986). Relative deficiency on the part of LD students with respect to reasoning strategies & test taking skills. Educational & Psychological Measurements, 46(4), 1075-1082.

Senf, G.N. (1978). Untitled Editorial Comments. Journal of Learning Disabilities, II, p. 73.

Sears, R.R., Maccoby, E.E. & Levin, H. (1957). Patterns of child rearing. New York: Harper & Row.

Shapero, S. & Forbes, R. (1981). A review of involvement programs for parents of learning disabled children. Journal of Learning Disabilities, 14,(9), 499-503.

Shumaker, J.B. & Hazel, J.S. (1984). Social skills assessment and training for the learning disabled: Who is on first and what's on second? Part II. Journal of Learning Disabilities, 17(8), 492-500.

Silver, L.B. (1984). The misunderstood child: A guide for parents of learning disabled children. New York: McGraw Hill.

Silverman, J.S., Fite, M.W. & Mosher, M.M. (1959). Clinical findings in reading disability children - special cases of intellectual inhibition. American Journal of Orthopsychiatry, 29(2) 298-314.

Sprenkle, D.M., Olson, D.H. (1978). Circumplex model of marital system: An empirical study of clinic & non-clinic couples. Marriage & Family Counseling, April, 59-74.

Stanton, M.D., Todd, T., Kirschner, S., Kleinman, J., Mowatt, D., Riley, P., Scott, S., Van Deusen, J. (1978). Heroin addition as a family phenomenon: A new conceptual model. American Journal of Drug & Alcohol Abuse, 5, 125-150.

Stone, B. (1984). Ecological view of self concept: RASE. Remedial & Special Education, 5, 43-44.

Stoneman, Z. & Brody, G.H. (1984). Research with families of severely handicapped children: Theoretical & methodological considerations. In J. Blacher (Ed.), Severely handicapped children & their families, Research in review (pp. 179-214). New York: Academic Press.

Strag, G.A. (1972). Comparative behavioral rating of parents with severe mentally retarded, special learning disability and normal children. Journal of Learning Disabilities, 5, 631-635.

Strauss, M.A. (1969). Family Measurement Techniques, Abstract of Published Instruments, 1935-1965. Minneapolis, MN: The University of Minnesota Press.

Sullivan, H.S. (1953). The interpersonal theory of Psychiatry. New York: Norton.

Symond, P.M. (1939). The psychology of parent-child relationship, New York: Appleton Century.

Turnbull, A.P., Turnbull, H.R. (Eds.) (1978). Parents speak out. OH: Merrill.

Von Bertalanffy, L. (1968). General systems theory: Formulations, development, application. New York: George Braziller.

Wahler, R.G., Berland, R.M. & Coe, T.D. (1979). Generalization processes in child behavior change. In B.B. Lahey & Kazdin (Eds.), Advances in clinical child psychology, Vol. 2, (pp. 35-39). New York: Plenum.

Walsh, F. (1982). Conceptualization of Normal family functioning. In F. Walsh (Ed.), Normal family processes. New York: Guilford Press.

Watzlawick, P., Beavin, J. & Jackson, D. (1967). Pragmatics of human communications. New York: Norton.

Wechsler, D. (1974). Manual for the Wechsler intelligence scale for children - revised. New York: Psychological Corporation.

Weiss, J. (1969). The identification and measurement of home environments and factors relating to achievement motivation and self-esteem. Unpublished doctoral dissertation. University of Chicago.

Westley, W.A., Epstein, N.B. (1969). The silent majority. San Francisco: Josey Bass.

Worchel, T., & Worchel, P. (1961). The parental concept of the mentally retarded child. American Journal of Mental Deficiency. 65, 782-788.

Wylie, R.C. (1974). The Self Concept (Vol 1) (rev ed.). Lincoln: The University of Nebraska Press.

Ziglar, R.G. (1981). Child and context: Reactive adaptations of learning disabled children. Journal of Learning Disabilities, 14(7), 391-394.