PARENTAL ESTIMATES OF THE MENTALLY RETARDED CHILD'S FUTURE ACHIEVEMENT

A THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF MASTER OF SCIENCE

IN THE GRADUATE SCHOOL OF THE

TEXAS WOMAN'S UNIVERSITY

COLLEGE OF NURSING

BY CAROLE MARSH, B.S.N.

DENTON, TEXAS

AUGUST 1980

ACKNOWLEDGEMENTS

This thesis is the result of assistance from many people. I would like to thank the members of my thesis committee, Tommie Wallace, Carolyn Bell, and Betty Wade for their guidance, assistance, and encouragement during the writing of this thesis. I wish to express my gratitude to the staff of the University Affiliated Center for their professional advice and consent to use their clients during this endeavor.

I wish to express my sincere appreciation to my parents whose aspirations for my future became an incentive and a goal. And lastly, my deepest appreciation goes to Gary, whose continuous encouragement, support, and patience made this endeavor a reality.

TABLE OF CONTENTS

	Pa	gε
ACKNOWLI	EDGEMENTS i	ii
TABLE O	F CONTENTS	iv
LIST OF	TABLES	vi
Chapter		
1.	Background and Significance	1 3 4 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
2.	Summary	.8 20 21
	The Continuity of Parental	26
		0
	Paternal Dynamics 3	6
	Development	9
3.	Setting	668902

Chapter																						P	age
			rea ımn																		•		5 6 5 7
4.	ANA		YSI umn																				5 9 6 5
5.	SUN ANI	D I Si Co In		CÓN na m :1 u :i o	MM] ry is: car	ENI ion	oA:	TI(ONS :	· ·	•	· ·	•	•	•	•	•	•	•	•			67 67 69 72 73
APPENDIX	A										•			•		•				•			7 5
APPENDIX	В	•	•							•	•			•									80
APPENDIX	С		•											•									8 2
APPENDIX	D		•							•										•			84
APPENDIX	Е				•				•						•								86
APPENDIX	F									•				•									89
APPENDIX	G				۲.					•													92
APPENDIX	Н									•													95
APPENDIX	Ι																					u	97
REFERENCE	E LI	IS7	Γ																				99

LIST OF TABLES

Table					Р	age
1.	Demographic Data	•				60
2.	Total Scores on Parent Questionnaire				•	61
3.	Comparison of Parent Questionnaire Scores		•	•	•	63
4.	Analysis of Variance of Total Scores					64

CHAPTER 1

INTRODUCTION

The birth of an infant into a family unit represents some degree of intrustion because the previously established family patterns are interrupted. The impact of this intrusion varies and is directly related to the nature of the family. The birth of a mentally retarded infant bears the greatest intrusion of all.

The emotional impact provoked by the birth of a mentally retarded infant varies with the parents' personalities. Their attitudes are highly individualized, a reflection of their previous experiences in crises situations, their interpretation of the immediate situation, and their anticipation concerning the infant's future. The parents' attitudes toward their mentally retarded infant determine both the potential success or failure of family life and the life of the infant.

As with any child, a mentally retarded child's close emotional relationships with significant others are essential for the child to achieve his maximum potential; therefore, the child's welfare is largely dependent on the well-being of the parents. The practices and goals

of parents of a mentally retarded child are shaped by the way in which they view their child's differences.

A mentally retarded child possesses limited intellectual capacity and poor social judgment and, therefore, has difficulty meeting his social expectations. The parents and significant others must recognize that their child has limitations as well as potentials. Parental expectations which exceed the child's potential generate a failure cycle. Praise and approval for the child's efforts become extinct. Conversely, parents who underestimate a child's potential severely limit his maximum maturational development. The greater difficulty the parents have in accepting their mentally retarded child, the greater difficulty the child will experience in accepting himself and making the appropriate social adjustments within his limited capabilities.

This proposed study attempted to describe parents' estimates of their mentally retarded child's future achievement potential as compared to an interdisciplinary staff's estimate of the child's future achievement potential. The information obtained from the study can be used by health professionals involved in directing a productive treatment program for parents of mentally retarded children.

Statement of the Problem

The problem of this study was to determine if there was a relationship between parents' and interdisciplinary staff's estimate of a retarded child's future achievement potential; and to determine if a relationship existed between mother's and father's estimates of their child's future achievement potential as compared to an interdisciplinary staff's estimate of the child's future achievement potential.

Statement of Purposes

The purposes of this study were:

- 1. To determine mother's and father's estimates of their mentally retarded child's future achievement potential.
- 2. To determine the interdisciplinary staff's consensual estimates of the future achievement potential of the mentally retarded child.
- 3. To determine if a relationship existed between parents' estimates of their mentally retarded child's future achievement potential and the interdisciplinary staff's estimates of the child's future achievement potential.

4. To determine if a relationship existed between mother's and father's estimates of their mentally retarded child's future achievement potential as compared to the interdisciplinary staff's estimates of the child's future achievement potential.

Theoretical Framework

Piaget's (1952) theory of cognitive development approached intellectual functioning from a unique framework. Instead of creating various tasks and then evaluating the correctness of the response(s), Piaget focused on the psychological processes that led to the response(s). Additionally, Piaget (cited in Maier, 1978) utilized a developmental approach to cognitive development by directing primary concern on interpreting behavior rather than categorizing behaviors that occur at different age levels.

Piaget (1952) postulated a series of cognitive developmental stages which stressed the order of their appearance, rather than the age of occurrence. The author described intelligence as an adaptive process which was only one aspect of all biological functioning. The environment placed the individual in both an adaptive and modifying position. The term accommodation was used by Piaget to describe the adaptation of the individual

to the environment. The term assimilation recognized the individual's adaptation of the environment to fit perceptions. The individual only achieved adaptation when accommodation and assimilation were in equilibrium, that is when harmony existed between the individual and the environment.

According to Piaget (1967), the cognitive capacities of the individual unfold naturally, but the effect of the environment is great. The author traced cognitive human behavior as a combination of four factors:

- 1. Maturation of bodily processes (i.e., differentiation of the nervous system)
- 2. Experience (i.e., bodily interaction with the physical world)
- 3. Social transmission (i.e., humans taking care of educating individual and affecting the nature of the individual's experience)
- 4. Equilibrium (self-regulation). (Piaget, 1967, p. 1)

Piaget's (1952) proposed sequence of cognitive developmental stages are universally accepted. These stages include the sensori-motor period, the preoperational period, the preconceptual period, and the concrete operation period. The author theorized that maturation and experience influence the child's rate of progress through the sequence of developmental periods. Additionally, variations in culture and social environments

contribute to differences in the average age of attaining different stages (Piaget, 1952).

If a child with a chronic illness or handicap is to achieve his potential for growth and development, parents must work through an acceptance and adaptation process. Rosen (1955) described five successive stages that parents pass through before fully recognizing and accepting mental retardation as a descriptive term for their child. first stage was characterized by an awareness that a serious problem existed; the second by recognition of the retardation for what it was; the third by a search for a cause; the fourth by a search for a solution; and the fifth by the acceptance of the problem, a stage which the author maintained was seldom fully attained. positive outcome of this process was relative acceptance of the child and his disability. The parents were then able to utilize both their strengths and those strengths of the child to cope with problems and assist the child to adapt.

A mentally retarded child's potential for growth and development is chiefly influenced by the environment as identified in Piaget's (1952) theory. The parent assumes the prime responsibility of providing environmental stimulation appropriate to the child's cognitive

stage of development. The degree of availability and variation of life experiences can bolster, accelerate, retard, and/or alter the rate of a child's development. The parents' aim should be directed toward providing specific real-life experiences consistent with the cognitive capacity of the child to expand and develop cognitive structures (Chinn, Drew, & Logan, 1975).

Background and Significance

There has been a consistent commitment among parents to achieve in child rearing practices the objectives they value. Most parents react and interact with their children in such a manner which they have judged to be in the best interests of both the child and themselves. Characteristically, parents in the American culture are oriented to the better than average achievement of their children. The child's abilities are viewed as a reflection of the parents' care-giving abilities. Although parents of children with developmental problems may be committed to promoting the child's optimal development, these parents are handicapped by a lack of experience and knowledge of rearing a mentally retarded child (Barnard & Erickson, 1976).

The unexpected birth of a retarded child presents stress to the family unit. Wolfensberger (1967) and Menolascino (1968) explored the different types of crises which families face with a mentally retarded child. The authors distinguished three different crises encountered by parents of young retardates. The novelty shock crisis involved the demolition of parental expectancies which occurred with the birth of an abnormal child. The crisis of personal values described the reaction to the mental deficit and its manifestations which were unacceptable in the parents' hierarchy of values. The reality crisis involved the day-to-day management problems which made living with the child difficult.

Denial is one of the initial parental reactions to having a mentally retarded child. This is a defense mechanism employed by the parents to protect themselves from having to suffer the ego deflation of having a "defective child" (Love, 1973). A child is perceived as an extension of the parent, thus a disabled child is perceived as a reflection of their own inadequacy (Baun, 1962). Solnit and Stark (1961) studied the mother's reactions to the birth of a retarded infant. The mother's reactions were described as those similar to that toward a dead child, "Feelings of loss, intense longings for the

desired child; resentment of the cruel blow that life's experience has dealt" (Solnit & Stark, 1961, p. 525).

Hersh (1961) studied the father's reactions to the birth of a mentally retarded child. The author concluded that the father tends to be more concerned with potential future problems of the child in terms of economic and social dependency. This concern was consistent with Morris' (1955) conclusions that:

Every parent wishes one day to realize his child's achievement in a career or marriage, and this eventual emancipation from the family and the ability to stand alone . . . but the parents of retarded children are never free of the fear of real events to follow their own passing when their children must face the vicissitudes of survival in a community that offers little in the way of acceptable alternatives for safeguarding them. (p. 512)

Condell's (1966) observations of parents' attitudes indicated that, "Parents of retarded children have a good deal of concern and anxiety about the future" (p. 87). Rheingold (1945) explored interpreting mental retardation to parents. The author observed a major concern of the parents focused on the child's future and appropriate expectations.

The parents' conscious admittance and acceptance of their child's limited abilities is a slow and agonizing process. Morris (1955) concluded that parental anxieties emerge as the parents notice the child's deficiencies

during various developmental stages. Waterman (1957) and Kanner (1953) described two opposing parental reactions toward mental retardation. Some parents adopt the martyr role according to Waterman's (1957) study. The parents verbally accept the mental deficiency ascribing it as an act of God. These parents assume that God has selected them to do as much as possible for the child. Conversely, Kanner (1953) found that some parents deny the existence of mental retardation. The parents insist that those persons who express concern about the child's development are merely pessimistic and spreaders of gloom.

In investigating the effects of parental attitudes, one of the greatest contributions parents make in creating difficulties is inconsideration of the child's mental ability. Parents often assume that by supplying their child with the necessary academic and social skills, they can equip their child to meet the outside world. Unfortunately the parents' expectations often exceed the child's mental ability. Thus, the child responds unfavorably to the parents' aspirations and expectations. The parents often develop ambivalent feelings of rejection and frustration (Hutt & Gibby, 1965). If parents manifest negative feelings toward their child's deficient abilities, a less wholesome relationship results; and it is less likely

that the child will achieve the level of maturity he has potential for attaining (Love, 1973).

Due to the discrepancy between parents' expectations and the child's actual level of achievement, the problem of rejection from family members must be considered. In many instances the child's ability to conform to parental expectations decreases the possibility of rejection.

Paymer (1965) indicated that children with an I.Q. in the upper range of mental retardation are more easily accepted by their parents. In 1955, Worchel (cited in Love, 1973) found that rejection patterns and negative reactions by parents have a pronounced effect on the adjustment and potential level of maturity of the child.

Peck and Stephens (1960) studied family relationships of mentally retarded children. The authors investigated the acceptance-rejection patterns present in parents of a mentally defective child. There was a tendency for parents to criticize and evaluate the retarded child's behavior as compared to their normal child. These authors also noted that the father's acceptance or rejection of the retarded child, rather than the mother's attitude, sets the parental pattern of behavior shown toward the child. Levine (1966) further studied the agreement and disagreement between mother and father of a mentally

retarded child. The author found greater agreement among parents with female mentally retarded children than mothers and fathers with mentally retarded males. Levine (1966) concluded that fathers have greater difficulty in identifying with male retarded children.

Parent-child rearing practices affected by guilt, rejection, hostility, and shame range from overprotection and overaffection to overauthority. These practices have profound influence on the optimal growth and development of the mentally retarded child. In the case of overprotection, these parents are apprehensive in permitting their retarded child to perform those tasks which may help develop the child's capacities (Frampton & Gall, 1956). According to Morris (1955), "most rights of retarded children as human beings are confiscated and they are deprived of the respect and mastery of their own simple wishes" (p. 512). Because parents have to cope with the unknown quantity of the child's intellect, they are unaware of what the child is capable of doing for himself. As a consequence of the parental reaction, the retarded child is often not permitted to learn many things he is capable of handling and, therefore, functions below the level of his already limited ability. Overprotective parents characteristically discourage curiosity and

protect their child not only from dangers, real or imaginary, but also from new experiences (Morris, 1955).

Indulgent parents yield to every whim of the child, allowing the child to run riot without regard to rules. The absence of structure in the child's life results in a deficit of positive, supportive attitudes from the parent. Supportive parental attitudes provide recognition of the child's functional integrity permitting the child to build on his intact abilities to compensate for his disability. Overauthoritative parents exert extra effort and authority to train their child. These parents often believe that a strict and rigid pattern for discipline and training is the best approach to assist the child to potential achievement. Parental inferiority develops when the child does not function as the parents anticipate he should. The parents tend to become excessively critical and nagging of the child's behavior (Love, 1973).

From the literature review, it was evident that parental attitudes toward their mentally retarded child had significant influence over the child's ability and rate in achieving his potential growth and developmental capacities. As parents gained more objectivity concerning their child's potential capacities, they became more

effective in involving themselves in plans to enhance their child's potential level of achievement. Therefore, it was justifiable to conduct a study which attempted to give some indication of how realistic parents' expectations were regarding the achievement potential of their mentally retarded child. Because the major extent of the retarded child's experiences lies within the boundaries of the family unit, it is important for the nurse to identify family attitudes which foster optimal growth and development for the mentally retarded child.

Hypotheses

For the purposes of this study, the following hypotheses were tested:

- 1. There will be no significant relationship between the parents' estimates of their mentally retarded child's future achievement potential and the interdisciplinary staff's estimates of the child's future achievement potential.
- 2. There will be no significant relationship between mother's and father's estimates of their mentally retarded child's future achievement potential when compared to the interdisciplinary staff's estimate of the child's future achievement potential.

Definition of Terms

For the purposes of this study, the following terms were identified:

- 1. Mental retardation--a condition characterized by suboptimal intellectual functioning severe enough to impair the educational and social performance consistent with other children in his or her age group (Knobloch & Pasamornic, 1974).
- 2. Mentally retarded child--a young person of either sex between the ages of 2 and 12 years functioning within the borderline, mild, or moderate range of mental retardation as evidenced by I.Q. scores ranging from 36 to 81 (Knobloch & Pasamornic, 1974).
- 3. Parents--a mother and a father who assume responsibility for the welfare and maintenance of their mentally retarded child. These persons exist as intact two-parent families.
- 4. Interdisciplinary staff--a group of health care professionals which may include a doctor, psychologist, nurse, physical therapist, occupational therapist, speech therapist, dental hygienist, nutritionist, special education staff member, and social worker involved in the diagnostic and evaluative process of determining a child's current level of intellectual and social functioning.

- 5. Estimate--a personal opinion or judgment pertaining to a mentally retarded child's potential future level of achievement.
- 6. Potential future achievement--an estimate of the child's projected ability to achieve competence in educational and social tasks characteristic of other children in his chronological and/or developmental age group.

Limitations

The study was conducted with regard to the following limitations:

- 1. A small sample size from only one agency limited the generalizations of the findings to only the sample population.
- 2. Only consenting subjects were included in the study.
- 3. There were no controls on cultural differences or other factors that may affect child rearing practices.
- 4. There was no control on economic level, social class, religious variables, or ethnic background.
- 5. Data obtained from the questionnaire might have been influenced by the subjects' subjective observing, reporting, and recalling.

6. There was no control on the age of the parents, number of children in the family, birth order of the mentally retarded child, and the biological relationship of the parents to the mentally retarded child.

Delimitations

For the purposes of the study, the following delimitations were identified:

- 1. The subjects were obtained from a diagnostic and evaluation center located in a metropolitan area of greater than 1,000,000 persons in the Southwestern United States.
- 2. To determine a base line measurement, the parent questionnaire was jointly completed by interdisciplinary staff personnel who had participated in the evaluation of the child.
- 3. The child being evaluated was between the ages of 2 and 12 years and currently functioning within the borderline, mild, or moderate range of mental retardation.
- 4. The child had no known physical handicaps or chronic illnesses.

Assumptions

For the purposes of the study, the following assumptions were presented:

- 1. Parents of a mentally retarded child are handicapped by their lack of experience and knowledge of the growth and development of their child.
- 2. Mental retardation is a condition characterized by significantly subaverage general intellectual functioning existing concurrently with deficits in adaptive social behavior (Grossman, 1973).
- 3. The major extent of a mentally retarded child's experiences lies within the family unit.
- 4. Potential achievement of the mentally retarded child can be predicted based on results of testing.

Summary

The topic of mental retardation and its impact on parents' expectations of the future achievement potential of thier child has been introduced. The review of the literature in Chapter II presents a detailed discussion of the literature available concerning the development of parental attitudinal reactions toward their mentally defective child. Inferences are made concerning the relationship of parents' expectations to the needs of the

mentally retarded child. Chapter III describes the procedure for collection of the data and Chapter IV presents the results and interpretations of the findings and the statistical method chosen for use in the study. Chapter V states the conclusions and implications derived from the study and recommendations for further research.

CHAPTER 2

REVIEW OF LITERATURE

"The greatest gift that anyone can offer is to enable another to realize his own capacities for change and growth" (Hamilton, 1948, p. 295). Handicapped persons are dependent to some degree on the persons in their environment. In the American societal culture, the family unit maintains the ultimate responsibility for fulfillment of the child's dependency needs. Being the parent of a mentally retarded child is no illusory or neurotic problem, rather it is a realistic difficulty that cannot be removed but must be countenanced. Only when parents can adequately handle or resolve the stresses of mental retardation can the retarded individual make optimal use of available resources.

This chapter will present an overview of the impact of a retarded child on the parents. The development of parents' attitudinal reactions toward their mentally retarded child will be reviewed. Inferences concerning the relationship of parents' expectations to the optimal growth and development of the child will be discussed.

Initial Reaction

Parents of mentally retarded children represent the total spectrum of human personality variation. When parents reach the point of recognition of the existence of mental retardation with their child, their reactions are highly unpredictable. Parents differ greatly in their own personal adjustment, capacity for parenthood, and their coping ability of life's many problems, including mental retardation. There is a regrettable tendency to categorize all parents of retarded children as anxious, insecure, guilt-ridden, and emotionally traumatized persons. These are not universal reactions nor are they experienced by each parent with the same intensity or duration (Begab, 1966).

The parent regards his child as an extension of himself. The birth of a defective child can represent a serious threat or damage to the parental ego (Kravaceus & Hayes, 1969). A child is frequently an outlet of vicarious satisfaction for the parents. They anticipate their child achieving educationally, physically, professionally, and financially as they themselves would desire to achieve. The mentally retarded child may generate for his parents extreme disappointment because of his inability to achieve such expectations. Parents also have tendencies

to perceive their children as a means through which the parents can transcend death. Their children provide a legacy and a measure of immortality. The parents of a retarded child may feel that they are deprived of this particular desire, thus creating further frustration (Chinn et al., 1975).

As previously stated, the birth of a retarded child poses a serious threat, insult, and even injury to the parental ego (Kravaceus & Hayes, 1969). Parents experience doubt concerning their integrity as adequate parents or human beings. A system of defense mechanisms has been developed by human beings to protect to minimize damage to the ego. Kanner (1953) suggested that the defense mechanism of denial is especially utilized during the initial stage of adjustment for the parent of a retarded child to provide a form of self-protection against the painful realities. Parents often become so anxious to convince themselves of their child's normality that they become preoccupied with one or two tasks he performs well and completely ignore all other activities he performs poorly. Begab (1966) concluded that, "The parents simply close their mind to their child's limitations or may explain their child's limitations by implying indifference. laziness, or lack of motivation" (p. 52).

Closely allied to the loss of self-esteem is the feeling of shame. Parents of a mentally retarded child anticipate pity, social rejection, and the related loss of prestige. Parents often withdraw from social participation. They become acutely sensitive to implied criticisms of the child and may react with belligerence and resentment. They are frequently apprehensive of their child's school years because during this time his defect will become more apparent (Roos, 1963).

Parents occasionally react to the birth of their retarded child with mourning or death wishes. Solnit and Stark (1961) concluded that the parent perceives the birth of a defective child as the loss of the expected healthy child. These authors viewed grief as the predominant parental reaction. The intensity of the grief was dependent on the abruptness of the loss, the preparation for the event, and the meaning of the lost object to the survivor. Olshanksy (1962) theorized that most parents who have a retarded child suffer from a pervasive psychological reaction identified as chronic sorrow. Because mentally retarded children exert greater demands on their parents and offer fewer rewards, Begab (1966) concluded that it was not uncommon for parents to harbor death wishes toward their retarded child.

Parents typically experience ambivalent feelings toward their retarded child. They are frustrated by the child's lack of achievement and inadequate control. Grebler (1952) stated that a parent's frustration often stems from social stigma, financial demands, and lack of services for the retarded child. Feelings of resentment and hostility are generated by repeated frustration. These feelings may be expressed as rejection toward the child. Patterson (1956) theorized that parents frequently experience regret for the occasional negative behavior they may display toward a retarded child.

The most delicate parental reaction to cope with is that of rejection. Parental rejection tends to carry such a negative connotation that any parent who has been described as rejecting is often prejudged and stereotyped as an incompetent parent and an individual devoid of humanistic values. In many situations a normal child's behavioral patterns exceed the tolerance level of his parents. Therefore, it can clearly be understood how a retarded child's limitations coupled with additional problems frequently create some form of parental negativism (Chinn et al.,

Gallagher (1956) defined the extreme degree of parental rejection as,

the persistent and unrelieved holding of unrealistic negative values of the child to the extent that the whole behavior of the parent toward that child is colored unrealistically by this negative tone. (p. 274)

This unhealthy parental reaction conceptualized the retarded child as willfully producing his defectiveness as an attack upon the parents (Mandelbaum & Wheeler, 1960).

Kanner (1953) encountered parents who could not forgive their child for not fulfilling futuristic expectations.

The author postulated that these parents were venting their disappointment on their child by holding him accountable for what they regarded as a betrayal of their ambitions. The child was repeatedly confronted with a continued onslaught of parental hostility and rejection.

Mandelbaum and Wheeler (1960) theorized that parents with low esteem and marked feelings of inadequacy often view their feelings of rejection as the cause of the child's damage. This self blame may become a destructive force against realistic planning because it focuses on the past instead of the present or future. Conversely, parents may externalize their hostility and in an attempt to maintain feelings of adequacy, demonstrate a high level of antagonism (Teska, 1947). The more intense the defense reaction toward the child and the longer its duration, the more probable it is that the retarded child will

become a part of the parents' total psychological functioning (Mahoney, 1958).

Feelings of guilt are common for parents of a retarded child. These feelings are manifested from their own anger and hostility toward the helpless child (Chinn et al., 1975). Alford (1955) concluded that parents undergo repeated destruction of their recurrent dreams and this process results in anger. The anger in turn produces guilt feelings. Parents often perceive the retardation of their child as a form of punishment sent by God for their sins or transgressions of the past (Kramm, 1965). Husbands may feel that they treated their wives inconsiderately (Roith, 1963). Poor prenatal care frequently generates feelings of guilt in the parent. This sense of guilt is intensified in those parents who deliver a retarded child after unsuccessful attempts at abortion had been made. While the association of past misdeeds to deficiencies of birth are more imagined than real, the feelings manifested by the parent are more real than imagined (Waterman, 1948).

The Continuity of Parental Reaction

The birth of a retarded child injects the potentiality of crises into family relationships. The occurrence of a

family crisis is dependent upon the extent family members regard an event as an undesirable changing element either in present or future family life. The parents can maintain a fiction of normalcy and avoid the development of a family crisis. They may choose to blame the child's inability to perform activities expected at his age level upon slow maturation or attribute his deficiencies to an easily remedied illness. If family members define the event as no different from the situation they had expected and if they believe family routines they had developed will meet the situation, there is no crisis. When the parents perceive their child as mentally retarded and define their existing roles and norms as inadequate, the crisis process develops (Farber, 1968).

Farber (1960) distinguished two types of crisis reactions--tragic crisis and role-organization crisis.

Tragic crisis is focused on the social context of family life and role-organization crisis is aimed at the care problems. Tragic crisis depicts bereavement as expectancies for life careers were demolished. This crisis is characteristically precipitated at the time of diagnosis, especially in high socioeconomic groups. In general, families of relatively high socioeconomic status emphasize future aims and aspirations. The parents regard the

child's handicap as an uncontrollable event which prevents fulfillment of their aspirations. Because the child is identified as the source of their frustration, hostility tends to be directed toward him. The role-organization crisis is concerned with the inability to organize a system of workable roles or means. The presence of a system of workable roles implies an ability to control activities of the individual members. This crisis is more common in lower socioeconomic classes in which emphasis upon parental control is great but long-range ends of family life are not especially stressed.

Wolfensberger (1967) and Menolascino (1968) theorized that parents may undergo three types of crises, some parents experiencing all of these, others one or none. The crises tend to correlate to some degree with the age of the child. The first crisis, novelty shock, is most likely to occur when the diagnosis of retardation is presented to an unsuspecting parent. The birth of a normal infant tends to create a situation for stress, retardation, emotionality, uncertainty, and vulnerability (Menolascino, 1968; Wolfensberger, 1967). The parents remain in a high expectancy state, anticipating not only the birth of a normal child but, additionally, a perfect child (Solnit & Stark, 1961). Parents are filled with preconceived

notions regarding sex, race, appearance, marital status, and future occupation. The arrival of an infant that markedly disrupts these expectancies may precipitate a novelty shock crisis. The crucial element of this crisis is the demolition of expectancies (Menolascino, 1968; Wolfensberger, 1967).

The second crisis described by the authors was labeled a value crisis. Retardation and its manifestations are unacceptable to many persons for varied reasons. The mere idea that a son may not possess the potential to become a successful merchant or professional man may be perceived as excessively painful by the parent. The alternate possibility of a youngster becoming a self-supporting, honest citizen who performs some skilled or unskilled work may also be unacceptable. The parents' reaction is frequently generated from a construct in their own minds rather than from an objective state. Fear of social stigma, feelings of guilt and failure, and other subjectively determined anguish may contribute to the value crisis (Menolascino, 1968; Wolfensberger, 1967).

The value crisis is described as a precursor to various degrees of emotional rejection to the child. The rejection patterns range from ambivalence and overprotection to complete denial of the retardate's existence.

Unlike the other two crises, the value crisis is more likely to endure the lifetime of the child and may coincide with any of the other crises (Menolascino, 1968; Wolfensberger, 1967).

Parental Ability to Assess the Child

The diagnosis of mental retardation can be made at birth in a small number of children. In the majority of cases, the diagnosis is not confirmed until school age.

In these situations parental awareness develops gradually. Formal diagnosis only confirms the parents' suspicions.

Although the act of confirmation may be sudden and abrupt, the parents' suspicion or knowledge of retardation is often present for months or years (Chinn et al., 1975).

Occasionally parents who are cognizant of the delay of their child's development can describe this delay accurately and provide a fairly accurate mental age estimate. However, they may not be able to reconcile themselves to labels which possess strong emotional connotations. McDonald (1962) and Barsch (1961) concluded that parents are more comfortable with the term "brain injury" than with "mental retardation" or similar labels.

Heilman (1950) was one of the earliest authors to indicate that the problems of parents of the mildly

retarded child differ with those problems of parents of the severely retarded child. The degree of impact. frustration, or disappointment does not necessarily correlate directly with the degree of deficiency. Chinn et al. (1975) interviewed parents of severely retarded children and concluded that while the initial impact was severe, it was perhaps easier for them to acknowledge their problem than for other parents whose children were mildly retarded. Parents of a child who appears normal and demonstrates many normal behaviors have difficulty accepting the child's retardation. Because mental retardation is obvious to the parents of severely retarded children, acknowledgement generally develops quickly. Dalton and Epstein (1965) stated that the term mildly retarded renders itself much more to wishful thinking and particularly the label slow learner lent to "catching up" fantasies. Parents of the mildly retarded are apt to be deluded by the attainment of various developmental milestones. Waterman (1948) viewed parents of the mildly retarded as the ones most obsessed with scholastic achievement.

Miller (1958) found parents of the severely handicapped more accepting and appreciative of their child's progress. Denhoff (1960) concluded that the uncertainty of the future has the greatest impact upon maternal-child relationships. The author found mothers of the severely handicapped "free and easy" while mothers of the mildly handicapped worried for months. In an experimental study, Cook (1963) denoted that mild handicaps were more likely to elicit parental rejection and severe handicaps were more likely to elicit overprotection.

Differences Between Maternal and Paternal Dynamics

Because few couples view their child's problem in the same manner, it is not surprising that they may differ in their ability to accept or manage the problems of mental Judging from his experience in group clinic retardation. orientation, Anderson (1962) concluded that fathers more readily accept the diagnosis and take more initiative in describing details of the child's behavior. Hersh (1961) hypothesized that the mother is more threatened than the father, that the mother is more likely to behave as if she had been insulted by life, and that she is more likely to develop a martyr or isolated role. Fathers are characterized as being less expressive and involved and are seen as more remote and objective. In situations in which the father appears very quiet, he seems to be nearer the maternal role than usual.

Because of their inability to cope with strong feelings, fathers demonstrate a greater tendency to convert their hurt and disappointment into regression. Fathers who have not successfully worked through their own separation from their fathers appear to have a particular problem with having a retarded child. The less well-established man is as a husband and father, the more traumatic will be the impact of a retarded child (Wolfensburger & Kurtz, 1969).

A number of authors have concluded opposing findings. Stang (1957) contended that fathers demonstrate a tendency to view the retarded child as a danger to their social status, while passive and overprotective mothers have greater anticipation with regards to the progress and growth of the child. Yates and Lederer (1961) postulated that fathers have greater difficulty in accepting the diagnosis of mental retardation but found that they are less personal and more intellectualized than mothers.

Oberman (1963) also viewed the fathers as less accepting of the diagnosis of their child as being mentally retarded.

The complex interaction of factors affecting parental perceptions of their retarded child is revealed in several studies. In an intensive interview of 50 families, Kramm (1965) concluded that family characteristics may affect

parental differences. In the Tallman (1965) study of 80 families with mentally retarded children, the mothers' ability to cope with the child was associated with factors intrinsic to the parent-child relationship, such as the child's I.Q. and social competence. The fathers' ability to cope with the child was related to the child's sex and diagnostic classification. Fathers were better able to cope with their male offspring who had not been classified as mongoloid. Tallman's (1965) findings suggested that fathers' expectations for the retarded child were influenced by nonfamily social factors.

Michaels and Schucman (1962) identified the parents' intelligence as an important factor in determining the relationship between parents and children. Intellectual attainment is highly valued in bright families. The discrepancy between the ideal child and the retarded child is greatly perceived by the parents. Contrasts with brothers, sisters, and neighborhood playmates are highlighted.

Conversely, parents of marginally intellectual groups are frequently able to accept casually the retarded child (Wortis, 1956). Farber (1968) hypothesized that parents of lower intelligence direct their focus toward the child's present emotional responsiveness and compatibility rather than toward the child's potential for achievement.

Parents often find the early years of rearing the retarded child more stressful than the latter years (Kramm, 1965). Cummings, Bayley, and Rie (1966) found mothers of retarded and neurotic children demonstrate greater depression and more difficulty in coping with anger toward the child and a diminished sense of maternal competence than mothers of normal children. Additionally, mothers of a retarded child are more preoccupied with the child.

Following extensive research, Farber, Jenne, and Toigo (1960) concluded that the initial impact of the diagnosis of retardation appears to be sex-linked.

Mothers indicate a slightly greater impact if the retarded child is a girl and fathers demonstrate a markedly greater impact if the retarded child is a boy. However, with the passage of time mothers of retarded sons report more severe problems of coping with the child than do mothers of retarded daughters. The authors suggested that early tragic crises and feelings of guilt are associated with problems of identification and vicarious living through the child. Later problems are associated with the development of family roles. The older retarded boy in the family is unable to fulfill the masculine role and disappointment and frustration are created.

Parental Coping Mechanisms

The parents of a mentally retarded child continually have difficulty with the concept of acceptance. There are some facets of mental retardation that can never be fully accepted. Parents may not accept the fact that a major portion of the child's limitations can never be reversed and any assistance provided for the child will not accomplish all that they desire (Chinn et al., 1975).

Acceptance has a distorted meaning for parents of a retarded child. The parents often assume that they are being asked to be as content with their retarded child as they are with one who has normal learning potential. If this attitude is adopted by a parent, he closes his mind to efforts to strengthen the child's potential (Morris, 1955). Robinson and Robinson (1965) defined acceptance as a warm respect for the child as he is, tolerance for his shortcomings, appreciation for his assets, and active pleasure in relating to him. Even in ideal families, parents and children experience difficulties, moments of anger, and outbursts of unaccepting behavior. A parent's expectations of a retarded child should not exceed those of a parent of a normal child.

Numerous authors indicated that if parents learn to adjust to the impact of a retarded child, they do so in

orderly and predictable stages. An earlier author, Stone (1948), postulated that parental adjustment can be defined in terms of the degree of awareness of the retardation. Parents with considerable awareness state that the child is retarded, recognize the limitations of treatment, and request appropriate information pertaining to education and placement. Parents with partial awareness characteristically describe the child's symptoms and inquire about causes of the child's condition. Although these parents are hopeful for improvement, they are anxious that treatment may not succeed and question their ability to effectively cope with the problems. Parents with minimal awareness characteristically refuse to recognize that certain behavior is abnormal, attribute causes other than retardation, and believe that treatment will produce a normal child.

Similarly, Kanner (1953) perceived three levels of adjustment which are dependent upon parental degree of acknowledgement of reality. Parents in the first level demonstrate complete inability to face reality. In the second level, parents attempt to disguise reality and envelop it in artificial explanations. On the third level, parents maturely face the actuality of the child's retardation.

Boyd (1951) defined specific parental developmental milestones associated with acceptance of a mentally retarded child. During the initial stage parents engage themselves in self-pity, and ask the perennial question, "Why did it happen to me?" Parental concern is predominately with oneself and one's own feelings. During the second stage, the parent emerges from a narcissistic self-concern to a concern for the child and his condition. Parental concern broadens in the third stage to include the spouse and others. During this stage, the parent demonstrates consideration of what to do for others instead of what they may do for oneself. Boyd (1951) hypothesized that many parents become arrested at an early stage, with only a minority attaining the highest level.

The American Medical Association Handbook on Mental Retardation (1965) described three stages of parental development: (a) initial emotional disorganization, (b) gradual reintegration, and (c) mature adaptation. Many parents who never attain an acceptance or understanding of the condition nevertheless are capable of providing good management.

Parental Perceptions of Children's Development

The adjustment of the parents to their mentally retraded child has a profound effect on their daily management and future expectancies of the child. Mentally retarded children manifest a variety of behaviors that are difficult for the parents to interpret and respond to correctly. Despite the parents' confusion, they are capable of much more accurate assessments of their children than was formerly assumed. Rheingold (1945) was one of the first authors to report that parents are generally capable of estimating their child's level of functioning. Ewart and Green (1957) reported that parents rate their male offspring with greater accuracy than their female These authors found that younger children are offspring. more accurately rated than older children and that there is greater accuracy among parents' estimates of their child's level of functioning if the child was younger when parents first became concerned about their child's Ewart and Green also revealed that more development. accurate ratings are made by mothers who are younger, more highly educated, or have a higher occupation status. Zuk (1959) reported that parents consistently rate the abilities of their child higher than a "relatively objec-However, parents of a child with motor tive" observer.

impairments more accurately rate their child's development than parents of a child without motor impairments.

In the middle 1960s, Capobianco and Knox (1964) concluded that mothers are able more accurately to estimate their child's I.Q. score than are fathers. Barclay and Vaught (1964) also reported that mothers of handicapped children tend to overestimate their children's potential for future achievements. Kurtz (1965) concluded that parents' estimates of a child's development most accurately correlate with a pediatrician's assessment, next with an intelligence test, and least with a speech pathologist's assessment. He also stated that parents' estimates are more accurate for children functioning at lower levels of development. Additionally, Wolfensberger and Kurtz (1971) concluded that parents display realism in predicting future developmental achievements of their mentally retarded child especially in academic achievement. In summary, clinical studies have indicated that parents are accurate in estimating their child's abilities. a discrepancy is apparent, parents tend to overestimate the child's abilities (Curry & Peppe, 1978).

From the literature review, it has been evident that many factors influence the parents' ability to adjust successfully to the situation of having a retarded child.

Some of the factors involve the parents' natures and other factors include external circumstances. Clinical studies suggest that the parents' strengths, personal satisfaction in other areas in their lives, economic circumstances, and the individual needs of the child are among the most influential factors (Robinson & Robinson, 1965). A reciprocal relationship exists between retarded children and their families. Saenger (1960) concluded that the more favorable the relationship between parent and child, the more stable and self-possessed the child is and the greater the stability and contentment of those who live with the child.

Needs of the Retarded Child

Mentally retarded children have the same basic needs and rights of all children such as love, acceptance, and opportunity to develop to their maximum potential. The retarded child has little control of his environment and of himself in relation to the environment. Due to his limitations, the retarded child finds himself dependent on other individuals for his survival. He often experiences difficulty in discovering and preserving his identity and his integrity (Hersh, 1961).

Chinn (1979) discussed two variables which are essential components for optimal development and adjustment of the retarded child. The variety and range of potential activities and experiences for the retarded child are frequently limited by an uninformed family. Family members often assume that because the child is retarded, he cannot appreciate experiences which normal children appreciate. A mentally retarded child's learning and adjustment are further curtailed when parents limit his experiences.

The balance of control within the child's environment is identified as a second important variable affecting adjustment. An attitude of helplessness and loss of self-identity develops in a child who is completely dependent on the members of his family. Although it may be easier for a parent to dress a retarded child than it is to teach the child to dress himself, when the child can successfully complete the task, he achieves a higher level of independence and ultimately improves his self concept. The opposite extreme is equally as hazardous. A retarded child who completely dominates and controls his environment by his overly patronizing family fails to gain an acceptable adjustment with his environment. A child who has learned to successfully interact with his family to

participate and accept responsibilities is usually able to transfer these interactions into the educational setting, peer group relationships, and other social contacts later in life (Chinn, 1979).

Kolstoe (1965) discussed the possibility of selfactualization among the retarded. The author theorized that to bring about maximum realization of potential within retarded individuals, they must have progressed through the basic stages of needs as proposed by Maslow The five levels of needs, arranged in a sequence from the lower needs to the higher needs, included:

- Physiological needs, (e.g., hunger, thirst) 1.
- 2.
- Safety needs (e.g., security, order, stability) Belongingness and love needs (e.g., affection, identification)
- Esteem needs (e.g., prestige, success, self-4. respect)
- Need for self-actualization. (Maslow, 1954, p. 124) 5.

The eventual goal for the individual's self-actualization reflects the developmental stage of maximum potential. The retarded child may never progress beyond belongingness and the love needs. Success, prestige, and selfrespect which fulfill the esteem needs may be formidable goals for the retarded.

Coopersmith (1967) investigated factors that lead to the optimal development of self-esteem. Children are more likely to develop higher levels of self-esteem if the parents, by attention and concern as well as by restrictions imposed as limits of behavior, convey to the children the feeling that they are significant. In such families, children are informed of their successes and experience successful accomplishment in efforts aimed at development and learning. Additionally these children are made aware of unsuccessful attempts and are encouraged to develop the behavioral alterations necessary to achieve approval and success. The increased level of communication among family members leads to the development of mutual respect and knowledge.

Kolstoe (1965) concluded that final goal of selfactualization may be met when the first four basic needs
have been met. Rogers (1951) indicated that in order for
an individual to develop the awareness of his full potential he requires a psychological atmosphere of unconditional positive regard. This type of atmosphere must
evolve from significant other people in the environment.
This atmosphere involves the total unconditional acceptance of the values and feelings of the young child
although it does not imply necessarily unconditional
agreement with the child. Although his accomplishments
may never match those of his normal peers, the retarded
individual may derive satisfaction and contentment in

achieving the best at whatever he is capable of performing, being accepted and well liked by his peers, and contributing to a better life for himself and his family.

Summary

The impact of a mentally retarded child is keenly perceived by the parents. Although parents may intellectually comprehend the problems of the mentally retarded child, they seldom achieve emotional acceptance of the problem. Parents' basic attitudes color all aspects of the daily care and future management of the retarded child. Parental attitudes are incorporated in many aspects of their child's behavior. As evidenced from the literature review, the parents of a mentally retarded child are generally committed to the promotion of their child's optimal developmental capacity. Support, acknowledgement, and objective feedback provide the parents greater appreciation of their child's potential capabilities. Through increased parental awareness of their child's developmental capabilities, the child gains exposure into an enriched environment of respect, acceptance, and challenges.

CHAPTER 3

PROCEDURE FOR COLLECTION OF DATA

A descriptive study as defined by Burton and Heidger-ken (1962) was conducted by the investigator. A descriptive study was pursued in an endeavor to describe the parents' estimates of their retarded child's future achievement and to observe the mother's and father's estimates of their retarded child's potential future achievement as compared to an interdisciplinary staff's estimate of a retarded child's future achievement.

Setting

The data for this study were collected from those persons attending a diagnostic and evaluation center located in a metropolitan area of greater than 1,000,000 persons in the southwestern United States. Prior to the families' arrival to the diagnostic and evaluation center, the children's records were reviewed by the investigator. Only intact two-parent families were considered as potential parent subjects (Group A) for the study. The parent subjects were given a questionnaire while their child

underwent an evaluation by one of the members of the interdisciplinary team. The parent subjects completed the questionnaire in an interview room. The room was well-lighted and ventilated to enhance a comfortable environment. The interview room contained three chairs and a desk or table. The room had as few distractions as possible; for example, the door was closed during the evalution to avoid outside distractions. Only the parent subjects and investigator remained in the room during the completion of the questionnaire.

Interdisciplinary staff subjects (Group B) included those individuals who had participated in the evaluation of the parents' child. Data from the interdisciplinary staff subjects were obtained during the staffing conference of the child under evaluation. The staffing conference was held in a conference room containing one 12-foot table and 10 chairs. The room was well-lighted and ventilated to enhance a comfortable environment. The room had as few distractions as possible; for example, the doors were closed during the evaluation to avoid outside distractions. Only those interdisciplinary staff subjects who had evaluated the parent subject's child and the investigator remained in the room during the Completion of the questionnaire.

Population and Sample

The population for the study consisted of mothers and fathers of retarded children residing in a metropolitan area of greater than 1,000,000 persons in the southwestern United States. The parent sample was determined by using the purposive sampling technique of those mothers and fathers who had brought their child for evaluation at a diagnostic and evaluative center. Through the use of agency records, the investigator selected potential parent subjects existing as intact two-parent families. There were 12 parent groups evaluated. The parent subjects' child underwent an evaluation at the center by an interdisciplinary team and was diagnosed as functioning within the borderline, mild, or moderate range of mental retardation. The children's ages ranged between the years of 3 and 11. Each parent subject separately completed a parent questionnaire (Jensen & Kogan, 1962) (Appendix A). Agency permission (Appendix B) to approach the potential subjects was first obtained before data were collected. A copy of the proposal of the study was submitted to the agency for their approval. After approval from the Texas Woman's University Human Research Committee (Appendix C) was received.

Interdisciplinary staff subjects (Group B) included those members of the interdisciplinary team who had participated in the child's evaluation. During the staffing conference of the child who had been evaluated, staff subjects jointly completed the parent questionnaire (Appendix A) and recorded the consensus of the group responses. Their evaluation provided a baseline measurement to compare parent subject responses.

Protection of Human Subjects

Subjects included in the study remained anonymous except to the investigator. To guarantee anonymity of parent subjects, parent questionnaires were identified numerically. Information from the demographic data sheet (Appendix D) was utilized by the investigator to compile data. To guarantee anonymity of staff subjects, parent questionnaires jointly completed by staff members were also identified numerically. The numerical identification corresponded to the appropriate parent subjects' groups.

Both parent subjects (Group A) and staff subjects (Group B) received a written explanation of the study outlining the purpose and method of gathering data. The explanation stated that the study would attempt to

identify parents' expectations of their child's future achievement potential in families in which their child had been identified as being developmentally delayed. The explanation assured anonymity to the staff subjects (Appendix E) and parent subjects (Appendix F).

The potential subjects were informed that an estimated time of 15 to 30 minutes for completion of the questionnaire would be required. The parent subjects were informed that questions from the parent questionnaire might be emotionally stimulating because they might expose their concerns, attitudes, and feelings regarding their mentally retarded child. The parent subjects were given the opportunity to withdraw at any time without repercussions to either child or parent. The staff subjects were given the opportunity to withdraw at any time without repercussions to the agency or staff subject. Written permission was obtained from each subject prior to collection of data (Appendix G).

<u>Tool</u>

Data for this study were collected by using a demographic data sheet (Appendix D) and a parent question-naire (Appendix A). Written permission from the author of the tool was obtained (Appendix H). The demographic

data sheet was given to each parent subject to be completed prior to administration of the parent questionnaire. The parent questionnaire was completed by each parent subject (Group A). The questionnaire consisted of 24 questions. The questions explored present and future areas of growth and development of the subjects' child. The subjects' response to each question was rated on a 5-point scale: yes--5; probably yes--4; question--3; probably no--2; and no--1. A score of 1 was the lowest, and a score of 5 was the highest for each item on the questionnaire. Questionnaires were identified numerically to assure anonymity of subjects and prevent biasing by the investigator. The scores were tabulated by the investigator from the sum total of responses given by each subject. The highest rating a parent subject could assign his or her child was 120.

A parent questionnaire was also completed by the interdisciplinary staff subjects who had participated in evaluating the parent subjects' child. During the staffing conference members of the interdisciplinary team who had evaluated the child met in the conference room. The investigator was present. During the staffing conference, in an open discussion, each member contributed his findings concerning the child's evaluation. At the conclusion of

the staffing conference the investigator directed the staff subjects jointly to answer the questions on the parent questionnaire. Responses for each item on the questionnaire were scored in the same manner as the parent subject responses. The consensus of the group was recorded on the questionnaire by the investigator.

A score was tabulated by the investigator from the sum total of staff subject responses provided on each child. The staff subject ratings were used as the base line measurement and the relationship between the parent subjects' ratings and the staff subjects' ratings was analyzed. Additionally, the relationship between the mothers' and fathers' ratings of their child as compared to the staff's ratings was determined.

Collection of Data

Each child referred to the diagnostic and evaluative center was assigned a case manager. The case manager was a member of the interdisciplinary team whose chief responsibility was scheduling the appropriate discipline evaluations for both the child and the parents. The case manager for each child was randomly assigned among members of the interdisciplinary staff. The child and parents were scheduled by the case manager to be evaluated

by only those disciplines who could provide pertinent information for the case.

Families utilizing the services of the agency were routinely informed by staff members of their option to sign a consent form stating their willingness to be contacted by students as potential participants of a study. The staff member explained that signing the consent form was not mandatory and their consent and/or refusal would not have any effect on the evaluation of their child and/or future evaluations. Through the use of agency records, the investigator selected potential parent subjects who were intact two-parent families and who had signed the agency consent form indicating their willingness to be contacted regarding research studies.

On arrival to the diagnostic and evaluative center, the selected parents were contacted by the investigator. A written explanation of the study (Appendix E) was given to determine if the parents would be interested in participating. If the parents indicated an interest, the investigator made an appointment to meet with the parents while their child was being evaluated. During contact with parents for the parent-investigator evaluation, written permission was obtained from each parent subject participating in the study (Appendix F).

The data collection consisted of the following steps:

- 1. Both parents were requested to remain in the room with the investigator.
- 2. Each parent subject was given a demographic data sheet (Appendix C) and a parent questionnaire (Appendix A). A writing instrument was provided.
- 3. The investigator instructed each subject to individually, without discussion with one another, complete both the demographic data sheet and the parent questionnaire.
- 4. The investigator read aloud the instructions included on the top section of the parent questionnaire. The investigator clarified questions from each subject.
- 5. The investigator instructed each subject to turn the sheet face down when all questions had been completed.
- 6. The investigator labeled each questionnaire on the back with a number for coding.
- 7. After both parent subjects had completed the questionnaires, the investigator collected the sheets.
- 8. The investigator attended the staffing conference of the parent subjects' child at the time and date designated by the case manager.

- 9. The staffing conference was conducted following the evaluations of both the parent and child by the interdisciplinary staff.
- 10. Only those members of the interdisciplinary team who had evaluated either the parent and/or child attended the staffing conference.
- 11. At the conclusion of the staffing conference the investigator introduced herself and provided each staff subject a written presentation of the study (Appendix D).
- 12. The investigator allowed time to clarify concerns of the staff members. A consent form was obtained from each staff subject participating in the study (Appendix F).
- 13. The investigator read aloud instructions included on the top section of the parent questionnaire.

 The investigator clarified questions.
- 14. The investigator read aloud each question from the questionnaire and recorded the consensus of the group response for each question.
- 15. Staff subjects' questionnaires were identified numerically to assure anonymity.

- 16. The investigator tabulated for each child the sum total scores from the staff subjects' responses and the parent subjects' responses.
- 17. The investigator statistically analyzed and interpreted results of the study.

Treatment of Data

The demographic data were reported by frequenly distribution. The data obtained from the parent questionnaire were analyzed through utilizing a summated rating scale. Each item on the questionnaire was rated on a 5point scale. The point values were assigned as follows: yes--5; probably yes--4; question--3; probably no--2; and no--1. The highest total score a subject could assign the child was 120. The relationship between the parents' average rating, the mother's rating, and the father's rating as compared to the interdisciplinary staff's rating was determined by utilizing the Spearman Rank Correlation Coefficient. The Spearman Rank Correlation Coefficient has been identified as a measure of association between the variables under study. The scores of the variables were ranked in two ordered series. magnitude between the two sets of ranks provided an idea of the proximity of the relationship. The larger the

disparity, the less perfect the association between the two variables (Siegel, 1956).

Additionally, a one-way analysis of variance was computed on the scores to provide more information concerning the results of the data. One-way analysis of variance has been identified as a method of identifying, breaking down, and testing for statistical significance variance which originates from different sources of variation (Kerlinger, 1964).

Summary

This study was developed as a descriptive research investigation which was concerned with the relationship of parents', mothers', and fathers' estimates of their mentally retarded child's future achievement potential as compared to an interdisciplinary staff's estimate of the child's future achievement potential. The setting used for the collection of data was the University Affiliated Center. Intact two-parent families with a child between the ages of 2 and 12 years, inclusive, who had been diagnosed as functioning within the borderline, mild, or moderate range of mental retardation were selected for the study. The interdisciplinary staff subjects included those members of the interdisciplinary team at the

University Affiliated Center who had participated in the child's evaluation.

The tool utilized for this study was a parent questionnaire adopted from Jensen and Kogan (1962). For each child, the investigator tabulated the sum total of responses on the parent questionnaire from staff subjects and parent subjects. To analyze the significance of the relationship between parents'/staff's; mothers'/staff's; and fathers'/staff's estimates, the Spearman Rank Correlation Coefficient (Siegel, 1956) was utilized. An analysis of variance (Kerlinger, 1964) was computed on the scores to provide additional information concerning the data collected.

CHAPTER 4

ANALYSIS OF DATA

The purpose of this study was to describe parents' estimates of their mentally retarded child's future achievement potential as compared to an interdisciplinary staff's estimate of the child's future achievement potential. The analytical findings were determined by means of scores tabulated from the sum total of responses from each subject to each item on the parent questionnaire. Total scores from staff subjects' responses and the parent subjects' responses were compared for each child to determine if a significant relationship existed.

Twelve intact families and fourteen staff members were included in this study. Twelve children of both sexes between the ages of 3 to 11 years and functioning within the borderline, mild, or moderate range of mental retardation were rated by both the parents and the staff. Demographic data of the parent-child groups are presented in Table 1.

Each parent-subject was asked individually to complete a parent questionnaire. The parent questionnaire consisted of 24 questions which explored present and

Table 1
Demographic Data

Item	Number Percent	
Marital Status Intact	12	100
Mean age of child	7.5	
Sex of Child Male Female	7 5	6 0 4 0
Mean Size of Family	4.4	
Rank of Child Only Youngest Middle Oldest	2 4 1 5	17 33 8 42

n = 12

future areas of growth and development of the child. The subjects' responses were rated on a 5-point scale: yes--5; probably yes--4; question--3; probably no--2; and no--1. A score of 1 was the lowest and a score of 5 was the highest for each item on the questionnaire. The highest score a subject could assign the child was 120. The scores were tabulated by the investigator from the sum total of responses given by each subject.

A parent questionnaire was also completed by the interdisciplinary staff subjects who had participated in

evaluating the parent subjects' child. In an open discussion, the staff subjects jointly answered the questions on the parent questionnaire. Responses for each item on the questionnaire were scored and tabulated in the same manner as the parent subjects' questionnaires. Table 2 reflects the total scores assigned to each child by the mothers, fathers, parents (mother and father score divided by 2) and staff subjects.

Table 2
Total Scores on Parent Questionnaire

Number of Parent Group	Mother	Father	Parents	Staff
01	95	110	102.5	52
02	87	112	99.5	44
03	88	83	85.5	77
04	93	107	100.0	7 4
05	112	111	111.5	67
06	110	96	103.0	96
07	75	85	80.0	7 0
08	78	83	80.5	74
09	108	106	107.0	8 5
10	97	112	104.5	94
11	105	107	106.0	91
12	98	73	85.5	7.2

The Spearman Rank Correlation Coefficient was utilized to analyze the relationship between parent subjects' estimates and the staff subjects' estimates of the child's future achievement potential. Additionally, the relationship between the mother's and father's estimates of their child's future achievement potential, as compared to the staff's estimate, was analyzed.

Once computing the value of the Spearman Rank Correlation Coefficient (rho), the significance of rho can be calculated. If the p-value is greater than the level of significance (.05) then the conclusion is that rho is not significantly different from zero. This implies that there is not a significant relationship between the variables. Conversely, if the \underline{p} -value is less than the level of significance (.05), the conclusion is that the relationship between variables is significant. Table 3 relates the results of the comparison of scores between mothers and staff; fathers and staff, and parents and staff utilizing the Spearman Rank Correlation Coefficient. The magnitude of rho determines the strength of the relationship with rho = 1 indicating a perfect positive relationship; rho = 0 indicating no relationship; and rho = -1 indicating a perfect negative relationship.

Table 3
Comparison of Parent Questionnaire Scores

	Mothers/Staff	Fathers/Staff	Parents/Staff	
Spearman rho	.382	183	.305	
p-value	.221	.569	.335	

In this study the level of significance in all comparisons was greater than .05. This finding indicated that there were not significant relationships between the estimates of the mothers/staff; fathers/staff; or parents/staff regarding the future achievement potential of the child. The highest relationship was displayed between estimates of the mothers and staff regarding the future achievement potential of the mentally retarded child. This supported the null hypothesis which stated that there would be no significant relationship between parents' estimates of their mentally retarded child's future achievement potential and the staff's estimate of the child's future achievement potential. The null hypothesis which stated that there would be no significant relationship between mother's and father's estimates of their child's future achievement potential when compared to an interdisciplinary staff's estimate of the child's future achievement potential was also supported.

During the analysis of data (Appendix I) the observation was made that staff scores were consistently the lowest of the three scores (mother, father, and staff). To verify if this observation was statistically significant, a one-way analysis of variance was computed on the data. If there was no difference in estimates of the child's future achievement potential between the three groups (mother, father, staff), then their means should be approximately equal. On the other hand if there are differences in the estimates between the three groups, then the mean in one column will be higher of lower than the mean in another column. Table 4 reflects the results of this comparison.

Table 4

Analysis of Variance of Total Scores

	Mother	Father	Staff
Mean	95.5	98.75	74.67
Median	96.0	106.5	74.0
Standard Deviation	12.06	14.05	15.81
Minimum	75.0	73.0	44.0
Maximum	112.0	112.0	94.0

Staff scores were statistically lower than mothers' and fathers' scores. Mothers' and fathers' scores were statistically the same. This finding is consistent with previous research which concluded that if a discrepancy occurred between parents and relatively objective observers, parents overestimated the child's abilities.

Summary

The purpose of this study was to describe parents' estimates of their mentally retarded child's future achievement potential as compared to an interdisciplinary staff's estimate of the child's future achievement potential. The use of the Spearman Rank Correlation Coefficient for determining the relationship between the scores from the parent questionnaire of parents/staff; mothers/staff; fathers/staff was described. The level of significance was greater than .05 in each comparison which indicated that there was no significant relationship between parents', mothers', or fathers' estimate of their child's future achievement potential as compared to the staff's estimate of the child's future achievement potential. Additionally, a one-way analysis of variance was computed on the scores to provide more information concerning the results of the data. Staff scores were statistically

lower than mothers' and fathers' scores. Mothers' and fathers' scores were statistically the same.

CHAPTER 5

SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

This chapter includes a summary of the research and the conclusions that were derived based on the data collected. The implications are useful for any nurse interacting with families who have mentally handicapped children. Recommendations for use of the findings and for further research are included.

Summary

The purpose of this study was to describe parents' estimates of their mentally retarded child's future achievement potential as compared to an interdisciplinary staff's estimate of the child's future achievement potential. The significance of parental attitudes toward the optimal development of the retarded child's capacities for growth and development was explained in the Background and Significance. The sample was obtained at the University Affiliated Center, a diagnostic and evaluation center for developmentally disabled children. Parent participants had brought their child for evaluation at the diagnostic evaluative center (Group A). Participants of Group B were

obtained from members of the interdisciplinary team who had participated in the child's evaluation. The framework of this study was descriptive.

The review of literature focused on the following areas: the impact of a retarded child on the parents; and the development of parent attitudinal reactions toward their mentally retarded child. The literature review also discussed the interrelationship of parents' expectations of their child to the optimal growth and development of the child.

The tool utilized in the study was the Parent Questionnaire adopted from Jensen and Kogan (1962). Parent subjects were asked individually, without discussion with one another, to complete the questionnaire. Each parent subject was also asked to complete a demographic data sheet. The interdisciplinary staff participants (Group B) were asked to answer jointly the questions on the parent questionnaire at the conclusion of their staffing conference. The consensus of the group was recorded on the questionnaire by the investigator. There was a total of 38 participants in the study, 12 intact parent groups (Group A) and 14 interdisciplinary staff members (Group B). The investigator tabulated for each child the sum total

scores from the staff subjects' responses and the parent subjects' responses.

The relationship between parents'/staff's; mothers'/
staff's; and fathers'/staff's estimates of the future
achievement potential of the mentally retarded child was
determined by using Spearman Rank Correlation Coefficient.
The results revealed that there was no significant relationship between parents'/staff's; mothers'/staff's; or
fathers'/staff's estimate of the child's future achievement
potential. The level of significance for each relationship
tested was greater than .05. An analysis of variance was
also included to provide another source of information concerning the data collected. This statistical test revealed
that staff scores were statistically lower than mothers'
and fathers' scores. Mothers' and fathers' scores were
statistically the same.

Conclusions

The following were true for this sample, but may not be applicable to the general population.

1. There was no significant relationship between the parents' estimates of their mentally retarded child's future achievement potential and the interdisciplinary staff's estimate of the child's future achievement potential.

2. There was no significant relationship between mother's and father's estimates of their mentally retarded child's future achievement potential when compared to the interdisciplinary staff's estimate of the child's future achievement potential.

The reason that there was no significant relationship between mothers', fathers', or parents' estimates of their mentally retarded child's future achievement potential as compared to the staff's estimate of the child's future achievement potential, may have been due to the lack of control for variables including race/ethnic origin, education, socioeconomic class, or religious preference of the parents. As evidenced from the literature review, these variables have a significant influence over the parents' daily management and future expectancies of their child.

As discussed in the literature review, in the majority of cases parental awareness of their child's mental retardation has developed gradually. The parent groups included in the study were commonly in the initial stage of the acceptance and adaptation process described by Rosen (1955). The first stage was characterized by an awareness that a serious problem existed. During this stage, parents are unable to utilize both their strengths and those

strengths of the child to adapt. The extent which this acceptance and adaptation process exerts on the parents' relative acceptance of the child and his disability was not explored but would indicate further implications for study.

The highest relationship determined in this study was that between mothers' and staff's estimates of the child's future achievement potential. This may be explained by the fact that mothers, by virtue of their closer day-to-day association with the child and other children, may be more accurate than fathers. This conclusion was consistent with earlier research by Capobianco and Knox (1964).

Analysis of variance of the scores revealed that mothers' and fathers' scores were statistically the same. This test also revealed that mothers' and fathers' scores were statistically higher than staff scores. This would appear to indicate that parents' expectations exceed the child's potential level of functioning. The serious consequences of parental over-expectations of the child's capabilities on the ego development of the child is notable. A failure cycle may be generated and praise and approval for the child's efforts become extinct. The extent which parental overexpectations of the child's

capabilities exert on the optimal ego development of the child was not explored but would indicate further implications for study.

Implications

The implications from this study are directed toward nurses who work with families who have mentally handicapped children. The birth of a mentally retarded infant in a family presents a unique situation many parents have not previously encountered. The less than normal child has the potential to evolve as a disrupting force within the family structure due to the parents' minimal experience with a child who is different in his pattern of development and behavior and for whom alternate goals and expectations will be required. The emotional well-being of the mentally retarded child and his future adjustment and achievement are contingent on the degree parents are able to integrate the child into their lives and their family.

The birth of a defective child does not have to be a traumatic experience for the child or parent if the parents are provided with professional support and guidance. The parents must be counseled to appraise realistically the child's strengths as well as his weaknesses. The nurse in a clinic, a pediatrician's office, or hospital may have the

opportunity to counsel parents in formulating goals for the child and the means by which they can assist the child and parents to meet the goals. Parents who seek support and knowledge from helping professions are at the same time initiating a more active role in assessing and meeting the developmental needs of their child. As parents gain more objectivity, their feelings of adequacy as an individual and a parent are enhanced.

Recommendations

The findings of this study have led to recommendations for nursing research. The following recommendations are made to help increase the awareness of parental expectations toward the potential future achievement of their mentally retarded child.

The sample size for this study was small. This study should be replicated with a larger group of subjects. The race/ethnic origin, education, socioeconomic class, and religious preference of the parents may have an important influence on the results of the study. Further study controlling these variables is needed.

This study could be utilized as a basis for further studies investigating attitudes and emotional feelings of parenting a mentally retarded child. Identification of

the relationship between the mentally retarded child's sex, rank in family, and number of siblings and the parents' estimate of the child's future achievement potential is needed.

Prior to arriving to the diagnostic and evaluative center, the parent groups included in the study had not been confronted with the reality that their child was mentally retarded. A study investigating the extent parental knowledge of the child's disability exerts on the parents' estimate of the future achievement potential of their child might reveal more information. Further study investigating the influence of parental expectations on the ego development of the mentally retarded child might reveal significant findings.



PARENT QUESTIONNAIRE

The questions below deal with areas of growth and development of your child both in the present and future. Some of the questions may be difficult to answer and may never have occurred to you before. Even though some refer to a time quite distant in the future, indicate your ideas as they seem to you now.

The questions have five choices: Yes, Probably yes, Question, Probably No, and No. Place a (\checkmark) mark where it is most true.

DO YOU THINK YOUR CHILD:

- Has normal mental ability (that is, average or above).
- Will be able to attend a regular school some day?
- Will be able to learn to read a newspaper?
- 4. Will be able to graduate from high school if he or she applies himself?
- 5. Will be able to attend a college or university some day if interested?
- 6. Will be able to attend a trade or vocational school some day, if interested.

			Yes
			Probably Yes
			Question
			Probably No
			No

7.	Will need to attend
	a special class for
	slow learners when
	he or she becomes of
	school age, or now.

- Has below normal 8. mental ability?
- May require care in 9. an institution some day?
- Will be able to learn 10. to play the piano or a musical instrument some day if he or she has the interest?
- Will be able to keep 11. up with the other children of his or her age in:
 - (a) regular play?
 - (b) in gymnasium?
 - (c) in competitive sports?
- Will be able to join 12. and participate in a regular Boy or Girl Scout group if he or she is interested?

\vdash					Yes
					Probably Yes
					Question
					Probably No
		-			No

13.	As	an	ad	ult	,	wi]	1
	be	ab1	е	to	tr	ave	1
	alo	ne	to	di	st	ant	Ċ
	cit	ies	?				

- 14. Will be able to choose suitable companions?
- 15. Will be able to go to school dances and go on social "dates" when he or she is in the older teens?
- 16. Will be able to manage a family of his or her own, when an adult?
- 17. Will, as an adult, be able to manage his or her own household?
- 18. In adulthood, will be able to do his or her own meal planning and shopping for food?
- 19. As an adult, will be able to manage his or her own bank account?
- 20. As an adult, will be able to have a regular job and be self-supporting?

-				
Yes	Probably Yes	Question	Probably No	No

Yes	Probably Yes	Question	Probably No	No

^{21.} In adulthood, will be able to plan for and buy his or her own clothes?

^{22.} Will, when an adult, be able to obtain a driver's license and drive a car?

Jensen, G. D., & Kogan, Kate L. Parental estimates of the future achievement of children with cerebral palsy. Journal of Mental Deficiency Research, 1962, 6, 56-64.

APPENDIX B

TEXAS WOMAN'S UNIVERSITY COLLEGE OF NURSING DENTON, TEXAS 76204

DALLAS INWOOD CENTER 1810 INWOOD ROAD DALLAS, TEXAS 75235 DALLAS PRESBYTERIAN CENTER 8194 WALNUT HILL LANE DALLAS, TEXAS 75231 HOUSTON CENTER
1130 M.D. ANDERSON BLVD.
HOUSTON, TEXAS 77025

	AGENCY PERMISSION FOR CONDUCTING STUDY
THE	V riverity Offileated Courte
GRANTS T	n Carole Marsh
a studen Woman's ing prob	it enrolled in a program of nursing leading to a Master's Degree at Texas University, the privilege of its facilities in order to study the follow- lem.
	Parental Estimates of the Mentally Retarded Child's
	Future Achievement
The cond	itions mutually agreed upon are as follows:
1.	The agency (may not) be identified in the final report.
2.	The names of consultative or administrative personnel in the agency (may not) be identified in the final report.
	The agency (wants) (does not want) a conference with the student when the report is completed.
4.	The agency is (willing) (unwilling) to allow the completed report to be circulated through interlibrary loan.
5.	Other
Date:	11/7/19 Uman () Cel Mi Signature of Agency Personnel
	Signature

* Fill cut and sign three copies to be distributed as follows: Original - Student; First copy - agency; Second copy - TWU College of Nursing.

GP:GEN 13 07026074 cd

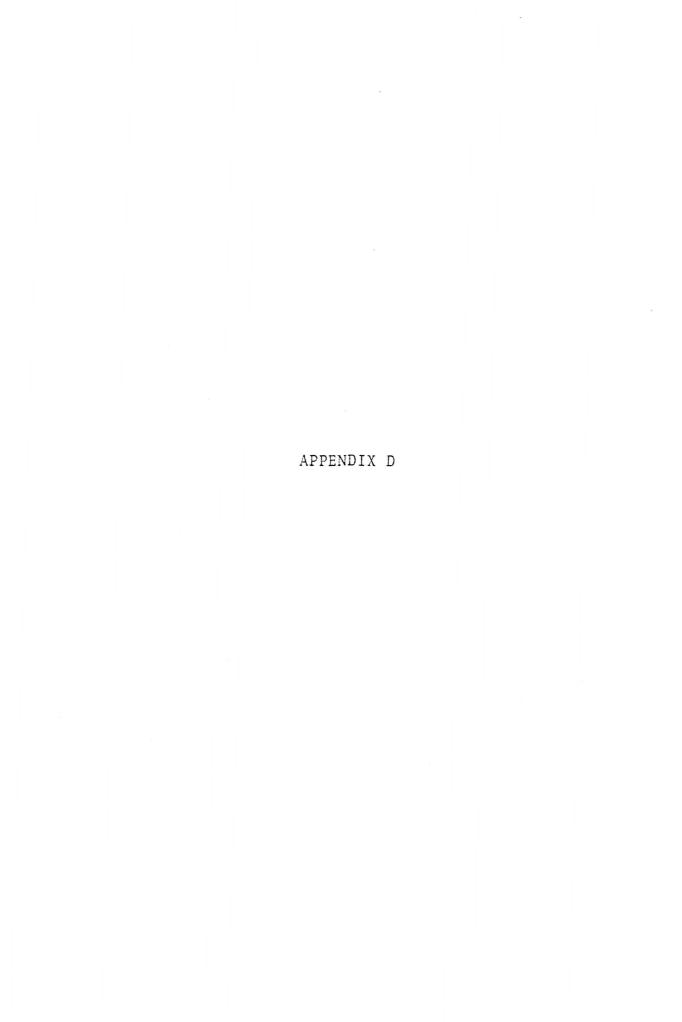


TEXAS WOMAN'S UNIVERSITY

Human Research Committee

Name of Investigator:	Carole Marsh	Center: Dallas
Address: 5843 Monticell		Date: 10/31/79
Dallas, Texas	75206	
		-
Dear Ms. Marsh:		
Your study entit	led Parental Estima	ates of the Mentally Retarded
Child's Future Achieveme		
has been reviewed by		e Human Research
Review Committee and		
in regard to protecti		
Please be remind	ed that both the	University and the
Department of Health,	Education and We	lfare regulations
require that written	consents must be	obtained from all
human subjects in you	r studies. These	forms must be
kept on file by you.		
Furthermore, sho	uld your project	change, another
review by the Committ	ee is required, a	ccording to DHEW
regulations.		
	Sincerely,	
	Estell	e D. Kurt
	Chairman, I	Human Research Committee

at Dallas .



DEMOGRAPHIC DATA SHEET

Please indicate with a check (✓) mark:
Mother
Father
Please fill in the proper data:
Number of children in family
Birthdate and sex of each child in family:
Birthdate Sex
You may use the bottom of this paper if you need more space.
Date

APPENDIX E

Written Presentation of Study

This study will attempt to identify parent's expectations of their child's future achievement potential in families in which their child has been identified as being developmentally delayed. For the purpose of this study, "estimate" refers to your professional judgment or opinion of the child's ability to achieve a degree of competence in selected activities occurring in the adolescent, early adulthood, and middle adulthood periods.

If you agree to participate in this study, you will be asked to jointly complete a questionnaire with other staff members who have examined the child. The consensus of the group's responses to statements on the parent questionnaire will be collected during the staffing conferences and recorded by the investigator of the study. The questionnaire requires about 15 to 30 minutes to complete. You will have an opportunity to clarify any concerns.

Your responses will remain anonymous in this study except to myself. You are free to withdraw at any time. If you are interested in the results of the study, you may contact me at home (214) 827-3097 during the month of January (15-31), 1980. An anticipated goal of the study

is to provide increased information for health professionals when dealing with families with developmentally delayed children.

Please sign the attached consent form to indicate your willingness to participate in the study. Thank you very much.

Sincerely,

Carole Marsh, R.N.



Written Presentation of Study

This study will attempt to identify parent's expectations of their child's future achievement potential in families in which their child has been identified as being delayed in development. For the purpose of this study, "estimate" refers to your personal judgment or opinion of the child's ability in selected activities occurring during the adolescent, early adulthood, and middle adulthood period.

If you agree to participate in this study, you will be asked to complete a questionnaire. The questionnaire requires about 15 to 30 minutes to complete. You will have an opportunity to clarify any concerns. The questions included on the questionnaire may expose your concerns, attitudes, and feelings toward your child. Your consent or refusal to participate in this study will not alter the results of your child's evaluation and/or any future evaluations. Your responses will remain anonymous in this study except to myself. You are free to withdraw at any time.

If you are interested in the results of the study, you may contact me at home (214) 827-3097 during the month of January (15-31), 1980. An anticipated goal of

the study is to provide increased information for health professionals when dealing with families with developmentally delayed children.

Please sign the attached consent form to indicate your willingness to participate in the study. Thank you very much.

Sincerely,

Carole Marsh, R.N.

APPENDIX G

Consent Form TEXAS WOMAN'S UNIVERSITY COLLEGE OF NURSING

(Form A -- Written presentation to subject)

Consent to Act as a Subject for Research and Investigation:

The following information is to be read to or read by the subject. One copy of this form, signed and witnessed, must be given to each subject. A second copy must be retained by the investigator for filing with the Chairman of the Human Subjects Review Committee. A third copy may be made for the investigator's files.

1. I hereby authorize (Name of person(s) who will perform procedure(s) or investigation(s)

to perform the following procedure(s) or investigation(s): (Describe in detail)

- 2. The procedure or investigation listed in Paragraph 1 has been explained to me by (Name)
- 3. (a) I understand that the procedures or investigations described in Paragraph 1 involve the following possible risks or discomforts: (Describe in detail)

(Form	Α	-	Continuation)
-------	---	---	---------------

- 3. (b) I understand that the procedures and investigations described in Paragraph 1 have the following potential benefits to myself and/or others:
 - (c) I understand that No medical service or compensation is provided to subjects by the university as a result of injury from participation in research.
- 4. An offer to answer all of my questions regarding the study has been made. If alternative procedures are more advantageous to me, they have been explained. I understand that I may terminate my participation in the study at any time.

Subject's	Signature	Date

(If the subject is a minor, or otherwise unable to sign, complete the following:)

Subject is a minor (age___), or is unable to sign because:

Signatures (one required)

Father	Date
Mother	Date
Guardian	Date
Witness (one required)	Date

APPENDIX H

4646 Amesbury #111 Dallas, Texas 75206 June 19, 1979

Dr. G.D. Jensen 731 Peach Lane Davis, Californía 95616

Dear Sir,

I am a graduate nursing student attending Texas Woman's University in Dallas, Texas. My focus of study has been in the area of pediatrics with special attention to children with developmental delays. My course studies have been completed. Presently I am in the process of writing my thesis to complete my master's degree.

I am interested in focusing by paper on parental estimates concerning their mentally retarded child's potential future achievement. While reviewing literature, I discovered your article "Parental Estimates of the Future Achievement of Children with Cerebral Palsy," in the Journal of Mental Deficiency Research Volume 6, 1962 pp. 56-64. I am writing this letter to ask your permission to utilize the questionnaire printed in your study. My study group will be composed of parents who have brought their child to the University Affiliated Center for an interdisciplinary diagnostic evaluation of their child.

If you are in agreement, it is necessary for me to have a written consent. Enclosed is a self-addressed envelope. Please send me your reply as soon as possible. Any futher comments will be greatly appreciated.

Sincerely,

(Arth March

Carole Marsh

Che agree of march front of my

The agree of march

And the Arthur of the Comment of th

APPENDIX I

TABULATION OF DATA FROM PARENT QUESTIONNAIRE

AND DEMOGRAPHIC DATA SHEET

No. of Parent Child Group	Mother's Score	Father's Score	Parent's Score	Staff Score	Sex of Child	Age of Child	No. of Children in Family	Rank of Retarded Child
01	95	110	102.5	52	М	9.0	2	Youngest
02	87	112	99.5	44	F	6.4	2	01dest
03	88	83	85.5	77	М	6.7	1	Only Child
04	93	107	100.0	74	М	7.9	6	Youngest
05	112	111	111.5	67	F	3.1	1	Only Child
06	110	96	103.0	96	- M	9.4	2	Youngest
07	75	85	80.0	70	М	11.6	2	01dest
08	78	83	80.5	74	F	7.6	2	Youngest
09	108	106	107.0	85	М	11.6	3	01dest
10	97	112	104.5	94	F	7.1	3	01dest
11	105	107	106.0	91	F	7.1	2	01dest
12	98	73	85.5	72	М	3.1	3	Middle

9

REFERENCE LIST

- American Medical Association of Mental Retardation. A handbook for the primary physician. Journal of the American Medical Association, 1965, 191, 183-232.
- Alford, A. F. Mental health despite mental retardation. Lancet, 1955, 1, 1233-1235.
- Anderson, A. V. Orienting parents to a clinic for the retarded. Children, 1962, 9, 178-182.
- Barclay, A., & Vaught, G. Maternal estimates of the future achievement in cerebral palsied children.

 American Journal of Mental Deficiency, 1964, 69, 76-84.
- Barnard, K., & Erickson, M. <u>Teaching children with</u> developmental problems: A family care approach. St. Louis: C. V. Mosby Co., 1976.
- Barsch, R. H. Explanations offered by parents and siblings of brain-damaged children. <u>Exceptional Children</u>, 1961, 27, 286-291.
- Baun, M. Some dynamic factors affecting family adjustment to the handicapped child. <u>Exceptional Children</u>, 1962, 28, 387-391.
- Begab, M. J. The mentally retarded and the family. In T. Phillips (Ed.), Prevention and treatment of mental retardation. New York: Basic Books, 1966.
- Boyd, D. The three stages in the growth of a parent of a mentally retarded child. American Journal of Mental Deficiency, 1951, 55, 608-611.
- Burton, M., & Heidgerken, L. <u>Introduction to research in nursing</u>. Philadelphia: J. B. Lippincott Co., 1962.
- Capobianco, R. J., & Knox, S. I.Q. estimates and the index of marital integration. American Journal of Mental Deficiency, 1964, 68, 718-725.

- Chinn, P. L. Child health maintenance: Concepts in family centered care (2nd ed.). St. Louis: Mosby Co., 1979.
- Chinn, P., Drew, C., & Logan, D. Mental retardation, a life cycle approach. St. Louis: C. V. Mosby Co., 1975.
- Condell, J. Parental attitudes toward mental retardation.

 <u>American Journal of Mental Deficiency</u>, 1966, <u>71</u>, 85-92.
- Cook, J. J. Dimensional analysis of child-rearing attitudes of parents of handicapped children. American Journal of Mental Deficiency, 1963, 53, 363-372.
- Coopersmith, S. The antecedents of self-esteem. San Francisco: W. H. Freeman, 1967.
- Cummings, S. T., Bayley, J. C., & Rie, H. E. Effects of the child's deficiency on the mother: A study of mothers of mentally retarded, chronically ill, and neurotic children. American Journal of Orthopsychiatry, 1966, 36, 595-608.
- Curry, J. B., & Peppe, K. K. Mental retardation: Nursing approaches to care. St. Louis: C. V. Mosby Co., 1978.
- Dalton, J., & Epstein, H. Counseling parents of mildly retarded children. Social Casework, 1965, 44, 523-530.
- Denhoff, E. The impact of parents on the growth of exceptional children. <u>Exceptional Children</u>, 1960, 26, 271-274.
- Ewart, J. D., & Green, M. W. Conditions associated with the mother's estimate of the ability of her retarded child. American Journal of Mental Deficiency, 1957, 62, 521-529.
- Farber, B. Family organization in crises maintenance of integration in families with a severely retarded child. Monographs of Social Research of Child Development, 1960, 25, 245-250.

- Farber, B. Mental retardation: Its social context and social consequences. Boston: Houghton, Mifflin Co., 1968.
- Farber, B., Jenne, W. C., & Toigo, R. Family crises and the decision to institutionalize the retarded child. Council of Exceptional Children Research Monograph, 1960, 1, 691-702.
- Frampton, M. E., & Gall, E. Mental and emotional deviates and special problems. Boston: Porter Sargent Publisher, 1956.
- Gallagher, J. Rejecting parents? <u>Exceptional Children</u>, 1956, <u>22</u>, 273-294.
- Grebler, A. M. Parental attitudes toward mentally retarded children. American Journal of Mental Deficiency, 1952, 56, 475-483.
- Grossman, H. (Ed.). Manual on terminology and classification in mental retardation, 1973 revision. Washington, D. C.: American Association on Mental Deficiency, 1973.
- Hamilton, G. Helping people--the growth of a profession. Journal of Social Casework, 1948, 295.
- Heilman, A. E. Parental adjustment to the developmental handicapped child. American Journal of Mental Deficiency, 1950, 54, 556-562.
- Hersh, D. Casework with parents of retarded children. Social Work, 1961, 64-69.
- Hutt, M., & Gibby, R. The mentally retarded child. Boston: Allyn and Bacon, Inc., 1965.
- Jensen, G., & Kogan, K. Parental estimates of the future achievement of children with cerebral palsy. <u>Journal of Mental Deficiency Research</u>, 1962, <u>5-6</u>, 56-65.
- Kanner, L. Parent's feelings about retarded children.

 American Journal of Mental Deficiency, 1953, 44, 375382.

- Kerlinger, F. Foundations of behavioral research (2nd ed.). New York: Holt, Rinehart & Winston, 1964.
- Knobloch, H., & Pasamornic, B. (Eds.). <u>Gessell and Amatruda's developmental diagnosis</u> (3rd ed.). New York: Harper and Row Publishers, 1974.
- Kolstoe, O. P. A high school work study program for the mentally subnormal student. Carbondale, Illinois: University Press, 1965.
- Kramm, E. R. <u>Families of mongoloid children</u>. Washington, D.C.: United States Government Printing Office, 1965.
- Kravaceus, W. C., & Hayes, E. N. <u>If your child is handi-</u>capped. Boston: Porter-Sargent Publisher, 1969.
- Kurtz, R. A. Comparative evaluations of suspected retardates. American Journal of Disabled Children, 1965, 109, 58-67.
- Levine, S. Sex-role identification and parental perceptions of social competence. American Jouranl of Mental Deficiency, 1966, 70, 822-831.
- Love, H., (Ed.). The mentally retarded child and his family. Springfield, Illinois: Charles C. Thomas, 1973.
- McDonald, E. T. <u>Understand those feelings</u>. Pittsburgh: Stanwix House, 1962.
- Mahoney, S. Observations concerning counseling with parents of mentally retarded children. American Journal of Mental Deficiency, 1958, 8, 353-359.
- Maier, H. Three theories of child development (3rd ed.). New York: Harper and Row, Publishers, 1978.
- Mandelbaum, A., & Wheeler, M. E. The meaning of a defective child to parents. <u>Social Casework</u>, 1960, 41, 360-367.
- Maslow, A. H. Motivation and personality. New York: Harper, Publishers, 1954.

- Menolascino, F. Parents of the mentally retarded: An operational approach to diagnosis and management.

 Journal of the American Academy of Child Psychiatry, 1968, 7, 589-602.
- Michaels, J., & Schucman, H. Observations on the psychodynamics of parents of retarded children. American Journal of Mental Deficiency, 1962, 66, 568-573.
- Miller, E. A. Cerebral palsied children and their parents: A study in parent-child relationships. Exceptional Children, 1958, 24, 298-305.
- Morris, E. Casework training needs for counseling parents of the retarded. American Journal of Mental Deficiency, 1955, 59, 510-523.
- Oberman, J. W. The physician and parents of the retarded child. Children, 1963, 10, 109-113.
- Olshanksy, A. J. Chronic sorrow: A response to having a mentally defective child. <u>Social Casework</u>, 1962, 43, 191-194.
- Patterson, L. L. Some pointers for professionals. Children, 1956, 3, 3-17.
- Paymer, S. Reciprocal role expectations and role relationships: The adjustment of the mentally retarded.

 American Journal of Mental Deficiency, 1965, 70, 382-396.
- Peck, J., & Stephens, W. A study of the relationships between the attitudes and behavior of parents and that of their mentally defective child. American Journal of Mental Deficiency, 1960, 64, 839-847.
- Piaget, J. The origins of intelligence in children. New York: W. W. Norton and Co., 1952.
- Piaget, J. Six psychological studies. New York: Random House, 1967.
- Rheingold, H. Interpreting mental retardation to parents. Journal of Consulting Psychology, 1945, 60, 142-153.

- Robinson, H. B., & Robinson, N. M., (Eds.). The mentally retarded child: A psychological approach. New York: McGraw-Hill Co., 1965.
- Rogers, C. R. Client-centered therapy: Its current practice, implications, and theory. Boston: Houghton-Mifflin, 1951.
- Roith, A. T. The myth of parental attitudes. <u>Journal of Mental Subnormality</u>, 1963, 9, 51-54.
- Roos, P. Psychological counseling with parents of retarded children. <u>Mental Retardation</u>, 1963, <u>6</u>, 345-350.
- Rosen, L. Selected aspects in the development of the mother's understanding of her mentally retarded child.

 American Journal of Mental Deficiency, 1955, 59, 522-535.
- Saenger, G. Factors influencing the institutionalization of mentally retarded individuals in New York City.

 Albany, New York: Interdepartmental Health Resources Board, 1960.
- Siegel, S. Nonparametric statistics for the behavioral sciences. New York: McGraw-Hill Book Co., 1956.
- Solnit, J., & Stark, M. Mourning and the birth of a defective child. Psychoanalytical Study Child, 1961, 16, 523-537.
- Stang, F. Parent Guidance and the mentally retarded child. Public Health, 1957, 71, 234-236.
- Stone, M. M. Parental attitudes to retardation. American Journal of Mental Deficiency, 1948, 53, 363-372.
- Tallman, I. Spousal role differentiation and the specialization of severely retarded children. Journal of Marriage and the Family, 1965, 27, 37-42.
- Teska, P. T. Some problems in the adjustment of the mentally handicapped. <u>Journal of Consulting Psychology</u>, 1947, 11, 276-280.

- Waterman, J. H. Psychogenetic factors in parental acceptance of feebleminded children. Disorders of the Nervous System, 1948, 9, 184-187.
- Waterman, J. H. Counseling and psychotherapy with the mentally retarded. Glencoe: The Free Press, 1957.
- Wolfensberger, W. <u>Counseling the parents of the retarded</u>. Chicago: Aldine Press, 1967.
- Wolfensberger, W., & Kurtz, R. A. Management of the family of the mentally retarded. New York: Tollett Educational Corp., 1969.
- Wolfensberger, W., & Kurtz, R. A. Measurements of parents' perceptions of their children's development. Genetic Psychology Monographs, 1971, 83, 3-11.
- Wortis, J. A note on the concept of the "brain injured child." American Journal of Mental Deficiency, 1956, 61, 204-206.
- Yates, L., & Lederer, R. The pattern of acceptance in parents of the retarded child. American Journal of Mental Deficiency, 1961, 55, 191-197.
- Zuk, G. H. Autistic distortions in parents of retarded children. <u>Journal of Consulting Clinical Psychology</u>, 1959, 23, 171-180.