

FAMILIAL COPING BEHAVIOR AND THE MENTALLY RETARDED CHILD

A Study of Familial Patterns of Coping
Behavior and the Subsequent
Behaviorial Performance
of the Child

A Thesis

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by

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CHAPTER 1

INTRODUCTION

"Kind hearts are more than Ph.D's,
And simple faith than high I.Q.'s."1/

This research project is concerned with familial coping patterns of behavior in stressful situations. Specifically, this study is concerned with the parents of mentally retarded children and the children themselves. This thesis is one of three concerned with mental retardation. Complimentary studies were carried out by Miss Helen Jean Chute, Halifax, Nova Scotia, and Miss Joan Margaret Hattie, also of Halifax, both students at the Maritime School of Social Work, Halifax, Nova Scotia.

The aim of this study is to see if there is a significant relation between the adaptive patterns of behavior of parents (upon finding that they have a mentally retarded child), and the subsequent modes of behavior of the (mentally retarded) child. This study

1/ Unidentified parodist.

is proceeding from the general proposition that familial patterns of coping with stressful situations affect subsequent behavioral performance. The main theoretical orientation for this study will be the development of familial coping behavior in stressful situations.

The principal assumptions of this probative study were phrased in terms of the following hypotheses so that they could be tested with factual data, and by a procedure recognized to be scientific. The hypotheses for this study are:

- (1) If parents of a mentally retarded child are able to cope effectively with the stress of having a mentally retarded child, then the child's behavioral patterns should parallel his capacity.
- (2) If siblings of the mentally retarded child are able to cope effectively with the stress of having a mentally retarded sister or brother, then this will markedly influence the mentally retarded child's pattern of functioning.

For the purpose of this study mentally retarded child is defined as one whose intelligent quotient ranges from 35 - 70, between the ages of 9 and 18. In this range are both trainable children

(with I.Q.'s ranging from 35 - 50) and educable children (with I.Q.'s ranging from 51 - 70).

Coping behavior of stress, for the purpose of this study, is indicated by parental acceptance or rejection of the mentally retarded child. The child's behavioral patterns and patterns of functioning are indicated by the appropriate level of performing (in the light of mental age and I.Q.), which is to be measured by the child's development in personal, social and academic skills.

Some of the concepts to be included are: mentally retarded child, parent, sibling, family dynamics, stress, coping behavior, behavioral patterns, acceptance, rejection, and appropriateness.

Only two variables are being studied: age and intelligence of the child. In imposing such a limit, other variables such as former education, socioeconomic status, number of siblings, the age of the parents at the time of realizing they had given birth to a mentally retarded child, the "stability" of their former behavioral patterns, the adjustment of siblings to each other, and the expectations which the

parents had for the new-born were excluded. Although it is recognized that the above variables have diverse effects on the parents' coping behavior, they were excluded from the study mainly because of the time element involved.

This study was conducted to help the student obtain an understanding of social work research, and also in partial fulfilment of the requirements for a Master's degree in Social Work from the Maritime School of Social Work, Halifax, Nova Scotia.

This study was carried out at the Nova Scotia Training School for Mentally Retarded Children, Brookside, Nova Scotia, and was written and interpreted from a social worker's point of view.

This project consists of data collected from social histories, school and training data (progress notes), and psychological reports of the case records of a sample of cases of children admitted to the Nova Scotia Training School in the calendar years 1961, 1962, 1963, 1964, 1965, and who are presently at the School. The Nova Scotia Training School is a residential school which serves the Province of Nova Scotia, and which

endeavors to actualize the potential of the children (between 9 and 18) for learning a) self-care, b) social adjustment, and c) academic achievement at their own level. It is primarily utilized for those children who are described in the province as trainable or educable and who cannot be maintained in their own homes or their communities (which may lack adequate facilities).

As previously stated, the primary data for this study was obtained by a study of the school's records and the required information was obtained by means of a schedule which was designed specifically for the purpose of this study; all questions asked of a particular record are found on the schedule.^{1/} This method was selected as an efficient and consistent pattern of handling the data. The system of independent judgements was utilized as a method of strengthening the reliability of the collected data. This was chosen because of the "ex post facto" nature of the records in which only part of the required material was explicitly stated, part implicit, and the remaining uncertain from the record. This is recognized as a

^{1/} Appendix A

limitation on the nature of this study; however, a more detailed discussion is reserved for Chapter V which discusses statistical procedures and findings.

Matrons'^{1/} and Teachers'^{2/} Questionnaires also designed for this study, were completed by the matrons and teachers at the Nova Scotia Training School during the period in which this research was being undertaken, for the purpose of assessing the child's adjustment to the institution and the school program respectively.

Sociometric tests^{3/} were administered by the teachers to all children in each class to study the child's sociability, that is his relation to his peers, and to indicate the pattern of acceptance and rejection.

As it is impossible to prove the validity of any causal relationship in the social sciences, the study attempted to reject the null hypotheses. Yates' correction for continuity (chi square) and Fisher's exact test for significance were the statistical

^{1/} Appendix B

^{2/} Appendix C

^{3/} Appendix D

formula utilized in this study.

Data pertinent to the theoretical orientation of familial coping behavior was also collected from bibliographical material in the fields of social work, medicine, psychiatry, sociology, and social work.

The circumstances under which this study was initiated and carried out imposed certain limitations on the research project. The research was undertaken at the Nova Scotia Training School which automatically excluded those mentally retarded children (as defined above) who are living at home throughout the province, and those parents whose mentally retarded child lives at home. By limiting this study to the educable and trainable children, the custodial retardates were excluded, as were children under nine years of age. This study was thus limited to the adaptive patterns of behavior of the parents of the mentally retarded child at the Nova Scotia Training School, and does not refer to the mentally retarded child in general. Besides these limits which were recognized as inherent in the nature of this study, severe limitations also evolved from the methodology of this project. As these limitations

are discussed in the following chapters, it is necessary only to outline them here. The following are recognized as limitations upon the significance of this study.

- (1) "expo facto" nature of the data
- (2) measuring of intelligent against emotional components
- (3) subjectivity of parental attitudes, rather than true feelings, as recorded by the interpreter
- (4) use of inadequate instruments to test child's intelligence
- (5) use of professional judgements where child is judged by their own criteria
- (6) original use of five point rating scale, modified to a three point scale of good, fair, poor
- (7) the system of inter-judge reliability and the influence of personal value systems.

It is hoped that the study will be relevant for the following reason. If a significant relation is found between the coping behavior of parents and the performance of their mentally retarded child, these results could be helpful in the treatment program for the mentally retarded child in a setting similar to the Nova Scotia Training School. This study is to be especially relevant to the social worker because of the increasing attention mental

retardation is beginning to receive in related fields, and to show that social workers have an appropriate role to execute in this field.

As stated the main theoretical orientation for this study will be that of coping behavior. Chapter two will trace the development of familial patterns of coping behavior in stressful situations.

The third chapter will look at the various reactions (or mechanisms developed) of a parent of a mentally retarded child, with particular emphasis on the subsequent parent-child relationship.

The fourth chapter includes a discussion of the method of this study; the procedure used in the execution of the study will be outlined. The findings of the data collected from the Nova Scotia Training School will be presented in tables; their significance will be tested by utilizing Yates' correction for continuity (chi square) and Fisher's exact test for significance. The significance of the results will also be explained in this chapter.

The final chapter will summarize the findings and consider their significance and implication for social work and social workers.

CHAPTER II

THE DEVELOPMENT OF FAMILIAL COPING BEHAVIOR

The normal development of self to the emergence of a mature personality involves struggle and conflict, that is, choices and decisions made within each successive stage of development from conception to death. Life is a constant interchange between organism and environment and as such it is difficult to maintain oneself against the 'stress' of everyday problems. There are wide differences in the pace of maturation and mastery, and therefore individuals develop different ways of dealing with their problems of environment and individual styles of managing stress, and of coming to terms with the demands of society.

Stress has many and diverse connotations, not only among disciplines including ego psychologists, psychiatrists, doctors, and social workers, but also among individuals. Stress may mean a stimulus - stress-evoked behavior; a response - stress - inducing stimuli;

a combination of both - the behavior it elicits.

It may also indicate a situation possessing a certain quality. Before proceeding it should be noted that stress in this paper will mean:

a force, applied to a system, sufficient to cause strain or distortion in the system, or, when very great to alter it into a new form. The term may be restricted to physical force, and physical systems, or extended to psychological forces and systems.^{1/}

Selye, in his book The Stress of Life, has been affluent in his contribution on the physiological processes of adaption. He simply defines stress as "essentially the rate of all the wear and tear caused by life."^{2/} For him stress is an internal condition, and he uses it for specific environmental situations, and their organismic response. Following his interpretation of stress as a state manifested by a specific syndrome which consists of all the non-specifically induced changes within a biological

^{1/} Horace B. English and Ava C. English, A COMPREHENSIVE DICTIONARY OF PSYCHOLOGICAL AND PSYCHOANALYTICAL TERMS; David McKay Co., New York, 1962; p. 529.

^{2/} Hans Selye, THE STRESS OF LIFE; McGraw-Hill Book Co. Inc., New York, 1956; p. viii.

system, Selye ^{1/} initiated the term general adaption syndrome, more commonly referred to as the G. A. S. This syndrome, which is related to the pattern of physiological response to stimuli, evolves in time and is triphasic. The phases are first the alarm reaction, characterized by shock, which is the sum of all the non-specific phenomena elicited by a stimulus to which the organism is not quantitatively or qualitatively adapted. Second is the stage of resistance which encompasses the sum of the non-specific systematic reactions elicited by prolonged exposure to which the organism has acquired adaption. The exhaustion phase is the third one and it is explained as the sum of all the nonspecific reactions ultimately developing as the result of prolonged over-exposure to stimuli to which adaption was made but could no longer be maintained.

In relation to patterns of responses many theories have been postulated, such as J. L. Lacey's which states that these patterns are specific for each individual, and that a single personal will react similarly regardless of the nature of the provocative

^{1/} IBID., p. 32.

stress situation. Contrary to this is Funkenstein's theory which says:

that the pattern of activity is specifically related to the nature of the emotional responses evoked, and that an individual will exhibit a variety of physiological responses in association with a variety of emotional states. ^{1/}

Unlike Selye's meaning of stress, Basowitz views stress as "an external condition which has been defined as a class of condition likely to produce distortion in most individuals."^{2/}

In his book Anxiety and Stress, Basowitz says:

that stress is the threat to the fulfilment of basic needs, the maintenance of regulated (homeostatic) functioning, and to growth and development. The response will differ depending on the level and ranges from cellular changes to individual and social phenomena. ^{3/}

^{1/} L. R. Howard, "The Subjective Meaning of Stress", in BRITISH JOURNAL OF MEDICAL PSYCHOLOGY, Vol. 33-34 1960 - 1961, pp 185-195.

^{2/} Harold Basowitz, ANXIETY AND STRESS; McGraw-Hill Book Co. Inc., New York, 1955; p. 7.

^{3/} IBID, p. 8.

Stress may not necessarily be part of the groundwork that prepares the organism for future disorder and it is here that the importance of stress tolerance and coping behavior is emphasized. In his discussion on personality, Thomas Langer ^{1/} states that personality is a way of behaving and reacting and he maintains that the importance of endowment and the inheritance of complex behavior are related to personality structure.

As already mentioned it is through the general adaption syndrome that our various internal organs help us to adjust to the constant changes in and around us. Life is largely a process of adaption to the circumstances in which we exist and consequently one must learn how to keep the damaging side effects of stress at a minimum. People can get used to a number of things which at first have alarming effects. Each individual inherits a certain amount of adaption energy, much of which is determined by his genetic background, his parents. Through complex mechanisms

^{1/} Thomas Langner, and S.T. Michael, LIFE, STRESS AND MENTAL HEALTH; Free Press of Glencoe, Collin-McMillan Ltd., London, 1948; p. 7.

the body can reduce the type of wear and tear caused throughout life. Similarly, through defense mechanisms an individual learns to cope with situations which to him are stressful. "The concept of stress has relevance in terms of a concept of personality organization."^{1/}

There is much variety in the means by which coping is accomplished. Many individuals have a variety of coping strategies more or less available which may be brought to bear on unfavorable contingencies in different combinations depending in part on the context of the situation. Such coping strategies appear to be formed and employed in every level of consciousness. They are sometimes thoughtfully worked out in a deliberate, calculating way; they are sometimes developed in a largely automatic unthinking way, and yet can be brought into focus without too much difficulty; and they sometimes work or operate outside awareness.

The individual is unique and how he reacts to a particular stressful situation is determined by his uniqueness. The reaction of adjustment to

^{1/} S. Sands and E. Rodnick, "Concept and Experimental Design in the Study of Stress and Personality," in AMERICAN JOURNAL OF PSYCHIATRY, Vol. 106, (1950) pp. 673-680.

environment, society, and cultural pressures, and to the stressful situations with which one has to cope exists from conception throughout life. Human behavior then is the reaction of a particular individual to a given situation and can be shown symbolically as I - S - R.

It is a human being's personality organization - his resilience, his adaptability, his ego-strengths, his ability to resist life's wear and tear, his inner resources which determine how much stress with which he can cope. ^{1/}

The individual then develops a pattern of behaving (which will be synonymous with coping behavior in this paper) whose primary function is to keep distress within manageable limits, to maintain homeostasis, and to preserve the integrity of the person. Putting it another way stress mobilizes the individual's resources at all levels of functioning in the interest of conservation, defense, and self-preservation. Coping patterns are most easily seen when a child or adult is confronting a new situation which cannot be handled by reflex, habitual,

^{1/} Thomas Langner and S. T. Michael, OP. CIT², p. 7.

or otherwise routine or automatic action. In this sense, the study of coping puts the emphasis on the process of developing ways of dealing with new and difficult situations and it is in this sense that the term coping behavior will be used in this paper. A distinction is made between coping and adaptation, which is taken from Lois Murphy's Widening World of Childhood. Coping points to the process, the steps or sequences through which the individual comes to terms with a challenge or makes use of an opportunity; adaptation is the result.^{1/}

Defense mechanisms may be, and often are, a part of the over-all coping effort. These coping devices or mechanisms involve choices in ways of using capacities and resources of the human organism - vocalization and locomotion, et cetera, "and also new structures and integrations developed by the individual organism to master its individual problems with the environment."^{2/} A coping device may be

^{1/} Lois Barclay Murphy, WIDENING WORLD OF CHILDHOOD; Basic Books Inc., New York, 1962; p. 6.

^{2/} IBID., p. 6.

defined chiefly in terms of the situation that calls for it, and these devices may represent behavior at various levels of complexity.

Coping devices oriented to meet a challenge, insofar as they aim at a new balance may be seen as constructive. Coping devices in response to stress, insofar as they aim at maintaining an old balance, may be seen as defensive devices or mechanisms. 1/

Defense mechanisms are often used in combination with one or another group of acting coping devices. These mechanisms are used by most 'normal' people at one time or another but it must be emphasized that "it is not the use of these mechanisms but rather the rigidity and frequency of use which determines who is normal and who is abnormal."2/ Individuals develop and use defense mechanisms which they have learned fit in best with their personality and this is most often a positive thing. Only when thinking and perception become distorted by their continual use do they become a disorganizing phenomena. An individual learns to cope with certain situations by calling into force one

1/ IBID., p. 109

2/ R. O. Jones, Class Notes in Psychiatry, M.S.S.W., 1965.

or several of the psychological defenses.

Of the many defense mechanisms only three will be cited here as illustrations of the nature of their use. Regression is the unconscious exclusion of emotionally painful material which arises from within the personality, from consciousness. Denial is the refusal to admit to consciousness material from outside the personality which would be emotionally disturbing or anxiety producing. Rationalization is the "process of concocting plausible reasons to account for one's practices or beliefs when these are challenged by oneself or others."^{1/}

It is necessary to ask when does one first learn to use coping patterns of behavior, and what chances is he given to assert or test his mechanisms or to adapt them where necessary.

(We) see that responses to newness often have their foundations in the earliest infantile experience of newness - the satisfactions, comfort, pain, and frustrations associated with these

^{1/} English and English, OP CIT., p. 458.

experiences, and the residue or expectancies resulting from them. ^{1/}

Then is not the family the basic unit of growth and experience, fulfilment and failure?

The final outcome in adaption rests not merely on the nature of the individual's conflicts and symptoms but on his total resources for dealing with them, that is, on the integrative potential of his personality, and the psychological character of the family group of which he is a part. ^{2/}

Familial patterns afford the form and range of opportunities for security, pleasure, and self-realization (and/or failure). Familial as used in this paper pertains specifically to the family and the members of the same family.

Among the varied social purposes served by the modern family, a pertinent one is stated as "the opportunity to evolve a personal identity, this bond providing the psychic integrity and strength for meeting new experiences."^{3/} The interaction of family

^{1/} Lois B. Murphy, OP. CIT., p. 57.

^{2/} Nathan Ackerman, PSYCHODYNAMICS OF FAMILY LIFE; Basic Books Inc., New York, 1958; p. 10.

^{3/} IBID., p. 19

How do family dynamics influence your quest?

members in reciprocal role relations provides the stimulus to appropriate receptivity to new experience and the cultivation of individual initiative. The choice of a particular defense against anxiety is selectively influenced by the family pattern and behavior of each member is affected by that of each other family member. Although Freudian theory focuses attention on the role of the family in shaping of personality, it gives priority to inborn instincts. Ackerman in Psychodynamics of Family Life, states that in the context of family relationship, psychological identity refers to elements of joined psychic identity - the strivings, the values, expectations, actions, fears, and problems of adaption, mutually shared in or complemented by the role behaviors of members of the family group.^{1/}

The family is the psychic agency of society and it is in the family that individuals test out or act out their personalities. The personality of one particular member becomes the dramatic expression of the pattern of stress that characterizes this particular family group.

^{1/} Nathan Ackerman, OP. CIT., p. 84.

Anxiousness and confusion permeate all aspects of family living. In a vicious, endless circle external problems aggravate internal disturbances, and internal tensions intensify the hardships of external adaptation. This disrupts the balance of the relations of the parents, complicates questions of choice and spills over to affect the problems having to do with care and education of children. The family, by providing care for its members and affording them a chance to learn from the process of socialization helps mold them into unique persons. The family is an ever active teacher - what it does, how it responds to the many problems and stressful situations with which it is confronted, profoundly influences its members. By the very nature of familial and role identity an individual member often takes as his own the coping patterns which have apparently proved successful in his own family. What the family teaches, the members are able to carry with them to newer and broader experiences.

The family today is not only the focal point of frustrations and tensions, but

also the source for resolving frustrations and releasing tensions... Through its capacity for sympathy, understanding, and unlimited support, the family rehabilitates personalities bruised in the course of daily living.^{1/}

Adjustment to a crisis that threatens the family depends upon the adequacy of role performance of family members. Just as stress has behavioral consequences in individuals, in the process of adjustment a family may find it necessary to work out coping patterns which may be evident in role changes. For the family then, is also necessary to devise certain mechanisms or problem solving efforts to cope with and adapt to the emotional difficulties associated with stress situations. Familial patterns of coping behavior then are those mechanisms which represent the family's efforts for coping with stressful situations and this is to be the context of the phrase throughout the paper.

By tracing the fate of core conflicts within the individual and between family members, one can often trace the relations between adaptive breakdown in one individual and the pathogenic disturbance in family relations.^{2/}

^{1/} Reuben Hill, "Generic Features of Family Under Stress", in CRISIS INTERVENTION; Howard J. Parad, Ed., 1965; p. 34.

^{2/} Ackerman, OP. CIT., p. 85.

The quality of adaption, adequate in some roles, failing in others, is deeply influenced by the individual's on-going family relationship. Behavioral reactions of a child are checked against all combinations of familial relationships which affect one another in a circular manner.

The child is shaped by the influence of environment, by parental care, love, and discipline. It is against the background of the family atmosphere, constantly in flux, that a child's personality and social reactions are developed. Because the child is in the state of becoming, his personality is incomplete in its individuation, changeable in its structure and function, uniquely vulnerable to inner tensions and environmental pressures. The personality dynamics of the parent as well as those of the child determine the behavior of the child.

Thus one may say that familial patterns of coping behavior affect or influence the subsequent behavior of its members. It is from this general proposition that the study proceeds. Chapter III

will outline the relationship between parental -
child coping behavior, with particular emphasis placed
on the parents of a mentally retarded child and the
child's behavior. From this will come the hypotheses
of the study.

CHAPTER III

PARENTAL - CHILD REACTIONS TO STRESS

Like all human beings, the parents of a retarded child react to their feelings. Their own life experiences, which have helped to shape their personalities, have contributed to the manner in which they adjust to pleasant and unpleasant realities in general, and to the presence of a handicapped child in particular. ^{1/}

Apart from the specific factors which influence the parents' ability to accept and to adapt to the situation, [the arrival of a retarded child brings to any family very difficult and very real problems.] In the face of such realistic emotional tragedy, the use of psychological mechanisms is not necessarily pathological. All families react to a retarded child in terms of their own life experiences and the values and attitudes of their own immediate environment. Before proceeding it should be noted that mental retardation in this paper is to mean:

^{1/} Leo Kanner, "Parents' Feelings About Retarded Children", in AMERICAN JOURNAL OF MENTAL DEFICIENCY, Vol. 57, (1952-1953) p. 382.

a state of social incompetence, obtaining at maturity, or likely to obtain at maturity, resulting from developmental arrest of constitutional (hereditary or otherwise) origin; the condition is essentially incurable through treatment, and unremediable through training, except as treatment and training instill habits which superficially or temporarily compensate for the limitations of the person so affected while under favorable circumstances, and for more or less limited periods of time. 1/

In their study on the "Observations on the Psychodynamics of Parents of Retarded Children", Michaels and Shucman stated that

In general, the initial impact of awareness of having a retarded child brings with it a period of shock, bewilderment, and disbelief. This is frequently followed by a time during which parents vacillate between unrealistic despair, and equally unrealistic hope ... At very least, feelings of realistic sorrow and disappointment are inevitable. 2/

1/ Edgar A. Doll, "The Essentials of an Inclusive Concept of Mental Deficiency," in AMERICAN JOURNAL OF MENTAL DEFICIENCY, Vol. 66, No. 2, (1941) p. 215.

2/ Joseph Michaels and Helen Shucman, "Observations on Psychodynamics of Parents of Retarded Children", in AMERICAN JOURNAL OF MENTAL DEFICIENCY, Vol. 66, (1962) p. 568.

The capacity to produce 'normal' (unimpaired) offspring is psychologically and culturally important for the parents' sense of adequacy. What then happens to the parents' sense of success, their feelings of personal adequacy when they have produced a child who is not normal and healthy, a child who is mentally retarded? Owing to internal and external pressures, the parents' capacity to maintain their emotional balance is severely tested and their own functioning, as well as the relationships within the family, are subject to strain. It is indeed a strain for parents to discover that their child, for whom perhaps they had great expectations, is mentally retarded. It is difficult for them to accept the frustrations of their expectations, it is difficult for them to accept this retarded child as an extension of themselves. Regardless of their initial reaction, most parents of a mentally retarded child will experience many different reactions as they struggle to adapt themselves to their child. These parents are conflicted people; they are concerned for the welfare of their child, and yet are ambivalent and guilty. "Their actions toward their child will

reflect divided emotions." ^{1/} Confusion, shock, guilt, bitterness, denial, these are only a few of the feelings to be experienced and coped with by these parents.

It should be remembered that the parents of a retarded child are the same as all parents. They have the same strengths and weaknesses, and their reaction to the stress of having a retarded child will pass through definite emotional stages. The kind of adaption which the parents make, depends of course, on a great many variables, both internal and external, involving personality and socioeconomic factors. Leo Kanner's ^{2/} study regarding "Parents' Feelings About Retarded Children" distinguishes three principle types of reactions to the stress of having a retarded child. In essence these are:

- (1) Mature acknowledgement of actuality makes it possible to assign to the child a place in the family in keeping with his specific peculiarities. The child is accepted as he is...Both parents manage to appraise the needs of their normal children as well and to distribute their parental contributions accordingly.

^{1/} Nathan Ackerman, OP CIT., p. 191

^{2/} Leo Kanner, OP CIT.

- (2) Disguises of reality create artificialities of living and planning which tend to disarrange the family relationships. Example: The fact of the handicap is seen clearly but is ascribed to some circumstance, the correction of which would restore the child to normalcy ... The full burden is placed on the child himself. Parental pressures to speed up his lagging speech development, to correct indistinct articulation, and to improve his homework, heap misery on the child, who finds it impossible to gain parental approval.
- (3) Complete inability to face reality in any form leads to its uncompromising denial. The formula goes something like this ... There is absolutely nothing wrong with my child. Those who are anxious about his development are merely pessimistic. Some children walk or talk sooner than others; some less quickly.

All these different types of attitudes and coping patterns are deeply anchored in the emotional backgrounds of the individual parents.

Smothering, overprotection, cold rejection, nagging, coercion or open neglect, defended as proper tactics necessary to cope with the individual's handicap are in the main fundamental, dynamically evolved reactions which seize on the handicap as a readily accessible, superficial explanation. ^{1/}

Michaels and Shucman^{2/} have found denial to be the most common mechanism utilized by the parents of a

^{1/} Leo Kanner, OP CIT., p. 383

^{2/} Michaels and Shucman, OP CIT.

retarded child. They state that denial may be constructive if it is only delaying a more realistic acceptance until the parents are better prepared to cope with the situation. Unfortunately, however, the exaggerated use of denial often becomes extremely complicated and may develop into delusional proportions, distorting the individual's judgement in other areas. Rationalization is often apparent as commonly the parents search for an 'explanation' for the situation which will preserve their self-esteem and absolve their feelings of guilt. Supported by rationalization, repressed hostility tends to break through. When this repressed hostility is directed to the child himself it may be masked by over-concern, over-indulgence, and over-protection on the part of the parents. Some parents respond to the problem by a process of detachment and withdrawal into the protection of their homes. As sharply opposed to mutual support, projection is sometimes evident as one parent tends to blame the other for the tragedy. However increased strength commonly results from the adaption of this family to the stress of having a retarded child, and consequently this may lead such families to a higher degree of

adaptive level of functioning. ^{1/}Almost invariably siblings identify with the reactions of their parents, that is, they adopt the parental attitudes toward their mentally retarded sister or brother.

It is expected that special coping problems of different kinds and at different levels of response would appear when a child has a serious motor or other handicap in dealing with new experiences. ^{1/}

Of major concern then is the effect of these coping patterns on the child, in this case the retarded child.

With a mentally retarded child parents seldom have knowledge and experience to draw on, and they must acquire it first hand from living with and caring for their own retarded child. This lack of knowledge and experience often results in parents, especially mothers, becoming tense and nervous, developing feelings of hopelessness and disappointment with their child. Fathers may detach themselves from the problem by losing themselves in their work or finding activities that will keep them away from home as much as possible. In caring for a retardate, the parents' personalities are

^{1/} Lois B. Murphy, OP CIT., p. 109.

exposed to trying experiences. Each role the parents fulfil in relation to their mentally retarded child must be prolonged in accordance with the degree of the child's retardation. Besides the additional physical effort and strain resulting from such trying situations in toilet training, feeding, walking, et cetera, the parents are met with considerable emotional frustration in their efforts. This frustration may lead to loss of patience with the child, and this loss of patience may lead to guilt and so a vicious circle is set in motion.

Thus the extra strain on the parental emotions will reflect in extra burdens in the life of the child. ^{1/}

The problems for the retarded child stem from the child's inability to attain parental expectations, academic or behavioral. In much the same manner as occurs among children with average or high intelligence the emotional adjustment of the retarded child determines his response to a learning situation. The mentally retarded child, like any child, devises patterns of behavior in relation to how he sees his parents'

^{1/} Hilda Stoddard, "The Relation of Parental Attitudes and Achievements of Severely Mentally Retarded Children", in AMERICAN JOURNAL OF MENTAL DEFICIENCY, Vol. 63, (1959) p. 577.

expectations for him. The effect on the child's behavior will vary then, depending on the degree of the child's retardation, on the presence or absence of other children in the family, on the parents' financial resources, and on their ideas about social prestige. However, pertinent literature in this area suggests the following as major daily pressures with which many retarded children must learn to cope.

- (a) independence - dependence
ambivalence and difficulty
- (b) immature expectations regarding
authority figures
- (c) confused self-image in regard
to social implications of mental
retardation, their self-worth,
their vocational goals, their
personal skills, limitations, and
capacities.

As stated previously, children learn to live with others through experience. However, the mentally retarded child is sometimes caught in a vicious spiral that is negative and limiting to social development. The lack of social experiences leads to social retardation and ineptness in chronologically appropriate social skills, accompanied by emotional difficulties ensuing from feelings of rejection and

deprivation.

[Thus it is hypothesized that if the parents of a mentally retarded child are able to cope effectively with the stress of having a mentally retarded child, then the child's behavioral patterns should parallel his capacity; and if the siblings of the mentally retarded child are able to cope effectively with the stress of having a mentally retarded sister or brother, then this will markedly influence the mentally retarded child's patterns of functioning.] The following chapter will describe the setting in which this study was executed, and the methodology will be outlined. An explanation of the statistical formula utilized to test the forementioned hypotheses will also be outlined.

CHAPTER IV

METHODOLOGY

This chapter is concerned with the methodology relevant to this study. For clarity of presentation it will be subdivided into three sections -

- (a) Nature of the Nova Scotia Training School
- (b) Definitions and Indicators
- (c) Choice and Explanation of Statistical Formula.

(a) Nature of the Nova Scotia Training School

This study was undertaken at the Nova Scotia Training School for Retarded Children, Brookside, Nova Scotia, to see if there was a significant relationship between the coping patterns of parents and siblings of a mentally retarded child and this child's subsequent behavior. The Nova Scotia Training School is a residential school for mentally retarded children whose three-fold program endeavors to develop the child's adequacy in the following areas; a) personal, b) social, and c) occupational. By placing the retardate in training situations and by providing opportunity for practical experiences designed to develop self-reliance, a sense of personal worth is fostered. To develop social

adequacy the child is afforded the opportunity to participate in group living, games, social functions, and community contacts. Classroom instruction transmits its goal of occupational adequacy for training the children in handicrafts, woodworking, cooking and sewing, and of practical work throughout the institution.

Paralleling the forementioned goals is academic instruction to the extent of the child's capacity.

Education for the mentally retarded child begins with ward training and progresses through academic groups to Grade 5 level. There is a vocational training program for those with aptitude and capability that will equip them for a return to society. The physical, emotional, social, spiritual, and manual development of the child are also emphasized. The latter is considered very important for it is by their hands that these children will eventually make their living.

Being a provincial school, children are accepted from all parts of the Province, with acceptance in the age bracket of nine to fifteen years inclusively. The mentally retarded child admitted must be either educable or trainable with an Intelligence Quotient of 35 - 70. Age and intelligence are noted as

limiting factors on the proposed nature of this study.

The calendar years 1961, 1962, 1963, 1964, 1965 were chosen for this project because it was thought that a study of the children admitted within these years and presently attending the School would give sufficient data relative to the nature of this study, that is, a spatial criterion to measure the child's development of personal, social, and academic skills

(b) Definitions and Indicators

For the purpose of this study a retarded child is defined specifically as

one, who because of retarded mental development would not profit from public school classes for educable mentally handicapped, but who possess potentialities for learning a) self-care, b) social adjustment, and c) economic usefulness in the home, in a sheltered environment, or in the community under supervision. ^{1/}

Thus this study is concerned with a child who is known in Nova Scotia as trainable with an Intelligence Quotient of 35 - 50, or who is known as educable with an Intelligence Quotient of 51 - 70. The terms trainable

^{1/} Hilda Stoddard, OP CIT., (Wirtz and Guenther) p. 575.

and educable are synonymous with the formerly used terms of moderately and mildly retarded, and imbecile and moron respectively. The group of mentally retarded children whose Intelligence Quotient is less than 35, known as custodials, severely retarded, or idiots, are excluded from this study.

For consistency of interpretation other definitions in this study are noted. The parent is the parent of a mentally retarded child as defined above. Similarly, a sibling is one who has a mentally retarded sister or brother.

As previously stated, coping behavior of stress is to be indicated by acceptance or rejection of the mentally retarded child. Acceptance is defined as;

an attitude or a relationship that recognizes the worth of a person without implying approval of particular behavior, and without implying personal affection. ^{1/}

Rejection is seldom absolute or complete, and usually it manifests itself in indirect ways:

by excessive criticism of the person rejected, by invidious comparisons, by signs of hostility, crossness, or

^{1/} English and English, OP CIT., p. 5

refusal to pay attention to the other person. Parental rejection means rejection of the child by the parent. 1/

It is in the context of these meanings that acceptance and rejection will be used throughout this study.

The child's behavioral patterns and patterns of functioning are to be indicated by appropriateness, which is defined as being specifically suitable, fit or proper, for use by a particular person. The child's capacity in this paper is relative to his mental age. This appropriateness will be measured by the child's level of performance in the personal, social, and academic skills in the light of his intelligence.

The data for this study was obtained through the use of data schedules 2/ which contained pertinent information collected from social histories, necessary in determining parental coping behavior. Matrons' questionnaires 3/ were completed by the matrons on the staff of the School as a means of assessing the child's overall adjustment to the school, that is, the

1/ IBID., p. 454

2/ Appendix A

3/ Appendix B

institutional setting. Physical and psychological data were used to assess the child's level of appropriateness in personal performance, such as performance indicated by self-help skills. School and training data, including academic progress notes, were used to determine the child's appropriate level of performance in the academic sphere. Teachers' Questionnaires ^{es} 1/ were used as a complimentary method of assessing the child's school progress. Sociometric tests 2/ were also administered by the teachers to measure the child's social behavior, that is, his adjustment to his peer group.

The variables being studied pertaining specifically to the mentally retarded child are intelligence, age, and sex. The variable pertaining to the parents being studied is limited to marital status, mainly because of the time element involved.

(c) Choice and Explanation of Statistical Formula

The remainder of this chapter is concerned with a discussion of the statistical procedures used in the execution of this study.

1/ Appendix C

2/ Appendix D

In the behavioral sciences we conduct research in order to determine the acceptability of hypotheses which we derive from our theories of behavior. Having selected a certain hypothesis which seems important in a certain theory, we collect empirical data which should yield direct information on the acceptability of that hypothesis. Our decision about the meaning of the data may lead us to retain, revise, or reject the hypothesis and the theory which was its source. 1/

In order to reach an objective decision as to whether a particular hypothesis is confirmed by a set of data, one must have an objective procedure for either rejecting or accepting that hypothesis. As it is impossible to prove the validity of any causal relationship in the social sciences, this study will attempt to reject the null hypothesis. 2/ This study involved an objective procedure based on the information obtained in the research, and on the risk willing to be taken that the decision with respect to the hypotheses may be incorrect. The procedure followed involved several steps which are listed in their

1/ Sidney Siegel, NONPARAMETRIC STATISTICS FOR THE BEHAVIORAL SCIENCES; McGraw-Hill Book Co., Inc., New York, 1956; p. 6.

2/ Sanford M. Dornbusch and Calvin F. Schmid, A PRIMER OF SOCIAL STATISTICS; McGraw-Hill Book Co., Inc., New York, 1955; p. 127.

order of performance. ^{1/}

- i) the null hypotheses were stated (H_0)
- ii) statistical tests (with their associated statistical models) were chosen. These tests were Yates' correction to Chi square for continuity, and Fisher's exact test of significance for a 2 x 2 Table.
- iii) .05 was specified as the level of significance and a sample size (N) was stated for each test.
- iv) the sampling distribution of the statistical test under H_0 was found.
- v) on the basis of ii), iii) and iv) above, the region of rejection was defined as equal to or greater than 3.84.
- vi) the value of the statistical tests were computed, using the data obtained from the samples. If the value was in the region of rejection the decision was to reject H_0 ; if the value was outside the region of rejection, the decision was that H_0 could not be rejected at the chosen level of significance.

Before presenting the results of the statistical tests (which will be the content of the following chapter) it is necessary to elaborate on and explain the formula mentioned in the preceding paragraph. As stated, the first step in the decision making procedure is to state the null hypotheses (H_0). The null hypothesis is an hypothesis of no differences. It is usually formulated for the express purpose of being rejected; if it is

^{1/} Sidney Siegel, OP CIT., p. 6 - 8.

rejected, the alternative hypothesis (H) may be accepted. The alternative hypothesis is the operational statement of an experimenter's research hypothesis.^{1/} This study's principal propositions phrased in terms of the null hypotheses can be stated as follows,

- 1) The performance of a mentally retarded child in personal, social, and academic skills is independent of parental acceptance or rejection.
- 2) The mentally retarded child's patterns of functioning in the personal, social, and academic skills are independent of sibling acceptance or rejection.

A distribution of considerable theoretical and practical importance is the distribution of chi square, or X^2 . Through its use one is able to compare observed with theoretical frequencies. The observed frequencies are those obtained empirically by direct observation or experiment. The theoretical frequencies are generated on the basis of some hypothesis which is independent of the data on hand. If the difference between the observed and theoretical frequencies are significant this constitutes evidence for the rejection

^{1/} Sidney Siegel, OP CIT*, p. 8.

of the hypothesis or theory that gave rise to the theoretical frequencies.

The distribution of χ^2 used in determining critical significance values is a continuous theoretical frequency curve. Where the expected frequencies are small, the actual sampling distribution of χ^2 may exhibit marked discontinuity. The continuous curve may provide a poor fit to the data, and appreciable error may occur in the estimation of probabilities, these being under the continuous χ^2 curve.^{1/} Thus it is for the above reason that an additional step known as Yates' correction for continuity was combined with chi square to determine whether there was a significant relation between familial patterns of coping behavior and the subsequent behavioral performance of the mentally retarded child, that is, to see whether the null hypotheses could be rejected at the .05 level of significance.

Yates' test is applied for 1 degree of freedom and to apply this correction the obtained frequencies that are greater than expectation are reduced by .5 and those less than expectation are increased by .5.

^{1/} George A. Ferguson, STATISTICAL ANALYSIS IN PSYCHOLOGY AND EDUCATION; McGraw-Hill Book Co., Inc., New York, 1959; p. 171

This brings the observed and expected values closer together and decreases the value of X^2 . This correction is used for the purposes of this study specifically because many of the expected frequencies are less than 5.

The formula used in computing X^2 from a 2 x 2 table is written to incorporate Yates' correction for continuity. This formula is symbolically written as:

$$X^2 = \frac{N \left(\left| \frac{AD}{(A+B)(C+D)} - \frac{BC}{(A+C)(B+D)} \right| - \frac{N}{2} \right)^2}{(A+B)(C+D)(A+C)(B+D)}$$

The term $\left| \frac{AD}{(A+B)(C+D)} - \frac{BC}{(A+C)(B+D)} \right|$ is the absolute difference, that is, the difference taken regardless of sign. The correction amounts to subtracting $\frac{N}{2}$ from this absolute difference. Yates' correction for continuity was applied to determine whether the two null hypotheses, stated earlier in this chapter, may be rejected. Questionnaires were issued to matrons 1/ and teachers 2/ at the Training School, and this test was also utilized to measure the matrons' and teachers' assessment of the child's overall adjustment to the institution and school routine respectively.

1/ Appendix B

2/ Appendix C

With 1 degree of freedom where the expected frequencies are small, an exact test of significance may be applied. This involves the determination of exact probabilities, as distinct from those estimated from the continuous χ^2 curve. In tabulating the effect that certain variables such as sex, age, and intelligence, have on a child's behavioral patterns, it was found that several of the expected cell frequencies were small, and some were 0. It was for this reason that Fisher's exact test of significance for a 2 x 2 Table was chosen to test the age - sex - intelligence relation to a child's performance, that is, to see whether a child's performance was independent of such variables. For any 2 x 2 Table, given the restrictions imposed by the marginal totals, a finite number of arrangements of the cell frequencies may result. For example 1/, for the table

2	1	3
3	5	8
5	6	

1/ Ferguson, OP CIT., p. 173

only four arrangements of the cell frequencies are possible. These are as follows:

1	0	3	3
	5	3	8
5	6		

2	1	2	3
	4	4	8
5	6		

3	2	1	3
	3	5	8
5	6		

4	3	0	3
	2	6	8
5	6		

The exact probability associated with each cell arrangement may be calculated. The required probabilities may be calculated without this laborious experimental procedure. The probability of any arrangements of cell frequencies, given the marginal restrictions, is obtained by:

$$p = \frac{(A+B)! (C+D)! (A+C)! (B+D)!}{N! A! B! C! D!}$$

The numerator is the product of the factorials (1) of the marginal totals. The denominator is $N!$ times the product of the factorials of the cell frequencies. The factorial of any number, say 5, is $5 \times 4 \times 3 \times 2 \times 1 = 120$; also $0! = 1$. Usually the probabilities associated with all possible arrangements of the 2×2 table need not be calculated. One need only calculate the probabilities associated with the observed table and those that represent more extreme departures from expectation in

the same direction. The probability of obtaining a degree of association equal to or better than the one observed, and in the same direction, is obtained by summing the probabilities. As in the Yates' test, .05 is taken as the level of significance, any result equal to or less than this is taken as the region of rejection. It is necessary to note at this point that all statistical calculations for this study were computed by machine. The study analysis and findings will be discussed in the following chapter.

CHAPTER V

ANALYSIS OF FINDINGS

This chapter is concerned with a presentation of the findings of the data obtained at the Nova Scotia Training School, and an analysis of these findings based on the formula described in the preceding chapter.

Out of the total population of one hundred eighty children at the Nova Scotia Training School, seventy-three were initially excluded from the study because only those children admitted in the calendar years 1961, 1962, 1963, 1964, 1965 and who are presently at the school had been selected. However, of the one hundred and seven records studied, twenty children were wards of the Children's Aid Societies throughout the province, and three children though having lived with their parent (s) for short intervals, had been reared in various institutions such as the Protestant Orphanage and Infants' Home. The project therefore, was concerned with a total of eighty-four cases. Table I shows the distribution of the one hundred and seven mentally retarded children admitted to the Training School in the calendar years

1961, 1962, 1963, 1964, 1965, who are currently at the school, and shows also the number and reason for exclusion from the study.

As already mentioned schedules 1/ were used to assess the child's record on file at the Nova Scotia Training School. Questions 1 to 14 required factual and specific information; a five point rating scale was utilized for questions 15 - 22 respectively. Such a procedure was chosen because of the "expo facto" nature of the data and because it was felt that the rating scale was the best device for evaluating behavioral patterns along the lines of the objective method. To re-enforce the validity of the five point rating scale, the system of inter-judge reliability was applied. Having divided the case records three ways, each set was re-read and re-assessed by an alternative reader.

Discrepancies between the content of the document and the realities of the event or situation described may arise from the effect of the recorder's own conceptions, beliefs, and standards, on what he observes and records, and from the limitations of the human being as

1/ Appendix A

TABLE I

FREQUENCY DISTRIBUTION OF 107 MENTALLY RETARDED CHILDREN
 ADMITTED TO THE N.S.T.A. IN THE CALENDAR YEARS OF
 1961, 1962, 1963, 1964, 1965, AND WHO ARE
 CURRENTLY AT THE SCHOOL SHOWING THE
 NUMBER AND CLASSIFICATION
 EXCLUDED FROM THE
 STUDY

Children

Total	180
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<u>SAMPLE:</u>	107
----------------	-----

EXCLUDED:

Wards	20
-------	----

Independent	3
-------------	---

Sample Used:	84
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a processor of information. ^{1/}

Having adopted these research procedures it is recognized that certain limitations evolve from their use. Primary among these was the revision of the five point rating system to a three point system. The three point system was adopted mainly because of the time element involved in this project which prevented a new study based on the recognition of this limitation. In using a rating scale,

the clarity of definition should hold not only for the variable as a whole but for various degrees of the variable along the rating line, so that a rating at any given point means the same thing to different raters, and to different interpreters of the results. ^{2/}

In tabulating the data into a dichotomy of parental acceptance and rejection, it was found that initially the inter-judge reliability was only 66-2/3%. However, it was evident that although this may have been in part due to the "expo facto" nature of the data, it also evolved from the poor definitive nature of the indicator of rejection. All records which contained

^{1/} Hunt, J. McV., "On the Use of Judgement of Social Workers as a Source of Information in Social Work Research," in SOCIAL WORK RESEARCH: Norman A. Polansky, Ed., Nat. Ass. of Soc. Work.

^{2/} Horace Champney, "The Measurement of Parent Behavior," in JOURNAL OF CHILD DEVELOPMENT, Vol. 12, No. 2, 1941, p. 137.

comments regarding parental acceptance and rejection were re-read and re-scaled, following a clearer and more exact definition of rejection for the purpose of this study. Overprotection was taken as an indicator of rejection, while inability to cope, unless otherwise stated, was not included in this category. Having re-scaled parental acceptance or rejection, the inter-judge reliability was increased to 90%. Those records on which the judges were unable to agree following discussion, and those which fell on the mid-point were discarded for this phase of the study. Included in the latter group, were 3 records which specified very succinctly that one parent accepted, while the other parent openly rejected the child. Thus initially this study included 76 parents who either accepted or rejected their mentally retarded child.

It is necessary to explain at length the effect of the system of inter-judge reliability on this study before proceeding. Since parental acceptance and rejection were often implicitly stated in the record, rather than explicit, and because they are 'intangible' a check of the reliability was applied to those

indicators considered to be more tangible, or at the least, more explicitly stated in the record. Contrary to the belief that the percentage of reliability would be higher than 70%, it was found that for question 17 and question 22, reliability was less than 50% in both instances. Such percentages of reliability imposed a very severe limitation on the study. Comments had not accompanied each question as they had with question 15, and, because of time, there was no way of rectifying the situation. The limitation evolved mainly from the fact that starting with the above mentioned 76 records, only that number of cases where there was agreement could be used for each question, thereby reducing the sample in many instances. Related to this specific limitation is the interference of personal value systems which undoubtedly influenced the scaling. This was most noticeable in the discrepancies between fair and poor, where it is felt that one of the judges was inclined never to rate a child poorly, although it may have been implied. The severity of this limitation suggests that valuable information was discarded.

As stated previously this study attempted to reject the null hypotheses at the .05 level of significance. The first null hypothesis states:

that the performance of a mentally retarded child in personal, social and academic skills is independent of parental acceptance or rejection.

In the preceding chapter it was stated that the child's behavioral performance would be indicated by an appropriate level of functioning in the personal, social, and academic skills, in the light of his age and I.Q. These were to be measured respectively by the child's habits of personal hygiene (question 22 of schedule); relation to peers and to adults (questions 17 and 18); and the child's adjustment to the school routine and his progress in the classroom (questions 19 and 20).^{1/} Thus Yates' correction for chi square using the formula already explained, was applied. Table II shows the dichotomy of accepting and rejecting parents and its influence on the child's relation to his peer group. As explained earlier the system of a three point rating scale had been utilized, this scale including good, fair, and poor. The former extremes of very good and

^{1/} Appendix A

TABLE II

PARENTAL ACCEPTANCE - REJECTION AND
CHILD'S RELATION TO PEERS
QUESTION 17

Rating	Accepting	Rejecting	Total
Good	25	5	30
Poor	5	5	10
Total	30	10	40
	$\chi^2 = 6.01$		

N = 40	Combined Accepting 3 fair+ 2 poor Rejecting 2 fair+ 3 poor
--------	--

very poor had been combined to good and poor respectively, mainly because of inter-judge reliability, cited above as a limitation. However, on occasion it may be possible without serious distortion of the data to combine rows and columns of a contingency table to increase the expected cell frequencies. ^{1/} Thus all fair and poor ratings, which were initially tabulated separately, were combined consistently throughout the study. For clarity of presentation, each time there was such a combination it will be shown, as this presents a bias working for this study. It should be noted that 1 degree of freedom was used consistently throughout; this was calculated by using the formula $(r - 1) (k - 1) = d.f.$ ^{2/} It is necessary to mention once again, that although the study started with 76 accepting and rejecting parents, the sample will vary for each test, depending on the inter-judge agreement. Table II shows also the number (N) of the sample used; and the number of fair and poor combined.

Similar charts were set up on the other questions pertaining to the stated hypothesis, and

^{1/} Ferguson, OP CIT., p. 172

^{2/} Ferguson, OP CIT.

their results were found by using Yates' correction for chi square. Table III presents the result of each question tested, and also indicates the number used in the sample. Since it was specified that the level of significance was chosen as .05, it is clear that the null hypothesis, taken as a whole (personal, social, and academic performance) could not be rejected, nor could its converse, alternative hypothesis be accepted. As previously stated at the .05 level of significance, with 1 degree of freedom, χ^2 must be equal to or great than 3.84 to reject the null hypothesis. However, viewing the three components of the hypothesis separately, the study showed that there was a correlation between parental acceptance / rejection and the child's adjustment to adults and peers, that is, his socialization. The study did not show, however, any correlation between parental acceptance / rejection and the child's performance in personal and academic skills.

Another method of measuring the child's adjustment to the administration and to the school program was utilized in the form of questionnaires administered to and completed by the matrons 1/ and

TABLE III

PRESENTATION OF STATISTICAL RESULTS USING YATES' CORRECTION FOR CONTINUITY
WITH EACH INDICATOR PERTINENT TO HYPOTHESIS

Question	Sample	Number of Pairs and Pairs Combined	χ^2
17. Relation to Peers (already shown in Table II)	40	Accepting 3 fair + 2 poor	6.01
		Rejecting 2 fair + 3 poor	
18. Relation to Adults	35	Accepting 4 fair + 1 poor	9.24
		Rejecting 2 fair + 1 poor	
19. Adjustment to School Program	37	Accepting 6 fair + 1 poor	3.09
		Rejecting 1 fair + 1 poor	
20. Progress in school (in light of I.Q.)	33	Accepting 7 fair + 0 poor	.27
		Rejecting 3 fair + 1 poor	
22. Development of Personal Skills	37	Accepting 2 fair + 6 poor	.02
		Rejecting 2 fair + 4 poor	

.05 level of significance - 1 degree of freedom
3.84

teachers 1/ at the Training School. Matrons and Teachers were asked to assess the child by answering each question on the questionnaire along the five point scale. The use of professional judgement is recognized as a limitation, but it must be mentioned that these judgements are respected as they would be in everyday situations. Table IV A and Table IV B illustrate the number of ratings in each class, that is, each question, as assigned by the teachers. Table IV C combines the information of the separate tables into one table which shows the teachers' assessments in relation to parental accepting / rejecting. Only question 11 was tested, as it was concerned with the child's overall adjustment in school. The result of this test was related back to question 19 and 20 of the schedule which dealt specifically with school adjustment and progress respectively; but it was found that there was no significant difference since the latter could not be rejected at the .05 level of significance.

Although the matrons' questionnaire could not be related specifically to any one question pertinent to the previously stated hypothesis, it was

1/ Appendix C

TABLE IV A

FREQUENCY DISTRIBUTION OF RATING RE
TEACHERS' QUESTIONNAIRES IN
RELATION TO PARENTAL
ACCEPTING

Question	Good	Poor	Fair
4A	29	6	0
4B	11	24	0
4C	29	3	2
5A	10	22	3
5B	27	3	1
6	29	5	1
7	33	2	0
8A	20	3	11
8B	15	12	5
8C	29	4	2
9	24	3	4
10	22	4	5
11	30	4	1

TABLE IV B

FREQUENCY DISTRIBUTION OF RATINGS PRESENTED RE
TEACHERS' QUESTIONNAIRES IN RELATION
TO PARENTAL REJECTION

Question	Good	Poor	Fair
4A	19	3	1
4B	12	10	1
4C	20	1	2
5A	9	13	1
5B	15	2	4
6	20	1	2
7	17	2	4
8A	12	5	6
8B	9	9	5
8C	18	2	2
9	14	3	4
10	12	4	5
11	17	5	1

TABLE IV C

QUESTION 11 OF TEACHERS' QUESTIONNAIRE IN
RELATION TO PARENTAL - ACCEPTANCE -
REJECTION

Rating	Accepting	Rejecting	Total
Good	30	17	47
Poor	5	6	11
Total	35	23	58

N = 58	Combined		
	Accepting	4 poor	1 fair
	Rejecting	5 poor	1 fair
$\chi^2 = .618$			

used because it assessed the child's overall adjustment to the institution. This is specifically related to the above hypothesis when it is looked at wholly, rather than as 3 separate entities, that is, the child's development in personal, social, and academic skills. Tables V A and V B respectively show the matron's evaluation of the child's overall adjustment to the institution; Table V C combines the information of question 9 of these separate tables so that the results could be calculated statistically. This could not be rejected at the .05 level of significance for 1 degree of freedom, as χ^2 falls below 3.84.

Before proceeding to present the findings concerning the second null hypothesis which centers on siblings, it is necessary to state that only 24 cases were used, again because of inter-judge reliability. However 36 of the total 84 records had nothing pertaining to siblings on the records. Hence only 24 were actually discarded because of the limiting system of judging. In Chapter III it was stated that siblings identify with the attitudes of their parents. The findings in this study suggest the

TABLE V A

FREQUENCY DISTRIBUTION OF RATINGS RE
MATRON'S ASSESSMENT OF CHILD
RELATED TO PARENTAL
ACCEPTANCE

Question	Good	Poor	Fair
4A	26	0	0
4B	36	8	0
4C	42	0	2
5A	25	0	1
5B	38	5	0
5C	40	1	2
6A	26	0	0
6B	43	0	0
6C	42	0	1
7	39	1	3
8	42	1	0
9	40	1	3

TABLE V B

FREQUENCY DISTRIBUTION OF RATINGS RE
 MATRONS' ASSESSMENT OF CHILD
 RELATION TO PARENTAL
 REJECTION

Question	Good	Poor	Fair
4A	15	0	0
4B	18	4	0
4C	17	2	2
5A	13	3	0
5B	17	6	0
5C	17	4	2
6A	17	0	0
6B	20	3	0
6C	21	1	1
7	19	1	2
8	21	0	1
9	19	1	3

TABLE V C

QUESTION 9 - MATRONS' ASSESSMENT OF CHILD -
 OVERALL ADJUSTMENT IN RELATION TO
 PARENTAL ACCEPTANCE -
 REJECTION

Rating	Accepting	Rejection	Total
Good	40	19	59
Poor	4	4	8
Total	44	23	67

N = 67	Combined
	Accepting 3 fair + 1 poor
	Rejecting 3 fair + 1 poor

$$x^2 = .424$$

validity of such a statement. Of the 24 cases used, 19 siblings identified with their parents. Of the remaining 5, four differed only in that they rejected or accepted according to one judge, while they were rated in the middle by the second judge. Only in one case was there complete contradiction.

As with the parental tests, this study attempted to reject the null hypothesis which states:

that the mentally retarded child's patterns of functioning in the personal, social, and academic skills are independent of sibling acceptance or rejection.

The same indicators were to be measured respectively by the child's habits of personal hygiene (question 22 of the schedule); relation to peers and to adults (questions 17 and 18); and the child's adjustment to the school routine and his progress in the classroom (questions 19 and 20). ^{1/} Yates' correction for continuity (chi square) was utilized for each subsequent question, using the formula already explained. The procedure was similar to that involved in the parental tests; thus the same limitations are recognized. Table VI shows the dichotomy

^{1/} Appendix A

TABLE VI

QUESTION 18 - CHILD'S RELATION TO ADULTS
IN RELATION TO SIBLING ACCEPTANCE
AND REJECTION

Rating	Accepting	Rejecting	Total
Good	6	4	10
Poor	1	1	2
Total	7	5	12

N = 24	Combined Accepting 1 fair + 0 poor Rejecting 0 fair + 1 poor
--------	--

$$\chi^2 = .27$$

of sibling acceptance and rejection and its influence on the child's relation to adults (question 18 of the schedule).

Similar tables were set up to test the other indicators in relation to sibling acceptance / rejection, and their results were computed by using Yates' correction for chi square. Table VII presents the result of each question tested, and indicates also the number used in each sample, the degree of freedom which is consistently 1 in this study, and the number of fairs and poors combined.

As previously explained, matrons' 1/ and teachers' 2/ questionnaires were utilized as another method of measuring the child's adjustment to the institution and to the school program. Although these have already been explained, it is important to emphasize that the use of professional judgement is recognized as a limiting factor on this phase of the study. Tables VIII A and VIII B illustrate the number of ratings in each class (question) as assigned by the teacher in relation to sibling acceptance and

1/ Appendix B

2/ Appendix C

TABLE VII

PRESENTATION OF STATISTICAL RESULTS USING YATES' CORRECTION FOR CONTINUITY
WITH EACH INDICATOR PERTINENT TO NULL HYPOTHESIS

Question	Sample	Number of Pairs and Pairs Combined	χ^2
17. Relation to Peers	12	Accepting 1 fair + 2 poor	.608
		Rejecting 0 fair + 1 poor	
18. Relation to Adults (shown in Table VI)	12	Accepting 1 fair + 0 poor	.270
		Rejecting 0 fair + 1 poor	
19. Adjustment to School Program	14	Accepting 2 fair + 0 poor	1.026
		Rejecting 2 fair + 2 poor	
20. Progress in School (I.Q.)	14	Accepting 2 fair + 0 poor	0
		Rejecting 2 fair + 1 poor	
22. Development of Personal Skills	11	Accepting 0 fair + 3 poor	.88
		Rejecting 1 fair + 1 poor	

TABLE VIII A

FREQUENCY DISTRIBUTION OF RATINGS RE TEACHERS'
QUESTIONNAIRE IN RELATION TO
SIBLING ACCEPTANCE

Question	Good	Poor	Fair
4A	9	1	0
4B	3	7	0
4C	6	1	2
5A	3	6	1
5B	6	0	2
6	8	1	1
7	10	0	0
8A	6	0	4
8B	6	3	0
8C	9	0	1
9	7	1	1
10	6	1	2
11	9	1	0

TABLE VIII B

FREQUENCY DISTRIBUTION OF RATINGS
 RE TEACHERS' QUESTIONNAIRE
 IN RELATION TO SIBLING
 REJECTION

Question	Good	Poor	Fair
4A	7	1	1
4B	4	4	1
4C	8	0	1
5A	2	5	2
5B	5	2	1
6	8	0	1
7	7	1	1
8A	5	2	2
8B	3	3	3
8C	6	1	2
9	4	0	3
10	2	1	4
11	8	1	0

and rejection. Question II of these tables were combined in Table VIII C; this question was concerned with the child's overall adjustment to the school program and this was consequently related to sibling acceptance and rejection. Yates' correction for continuity was utilized to compute the statistical result. The result was compared to questions 19 and 20 of the schedule, but no significant results were found. Neither result could be rejected at the .05 level of significance with one degree of freedom, which is 3.84.

Although the matrons' questionnaire was not related specifically to any one question pertinent to the null hypothesis stated, it was tabulated and tested because it gave an overall assessment of the child's record in relation to his adjustment to the Training School. Thus when one thinks of the retarded child's performance as an integration of functioning on three levels (personal, social, and academic), this table will be more meaningful. Tables IX A and IX B respectively illustrate the matron's assessment of the child in relation to sibling acceptance and rejection. Table IX C combines the results of

TABLE VIII C

QUESTION 11 - CHILD'S OVERALL ADJUSTMENT TO THE SCHOOL
PROGRAM - TEACHERS' QUESTIONNAIRE IN RELATION
TO SIBLING ACCEPTANCE - REJECTION

Rating	Accepting	Rejecting	Total
Good	9	8	17
Poor	1	1	2
Total	10	9	19

N = 19	Combined	
	Accepting	0
	Rejecting	0

$$\chi^2 = 2.88$$

TABLE IX A

FREQUENCY DISTRIBUTION OF RATING RE MATRONS'
ASSESSMENT OF CHILD IN RELATION
TO SIBLING ACCEPTANCE

Question	Good	Poor	Fair
4A	8	0	0
4B	10	3	0
4C	13	0	0
5A	8	0	0
5B	12	0	0
5C	12	0	0
6A	8	0	0
6B	12	0	0
6C	12	0	0
7	11	1	0
8	12	1	0
9	12	0	1

TABLE IX B

FREQUENCY DISTRIBUTION OF RATINGS RE MATRONS'
ASSESSMENT OF CHILD IN RELATION
TO SIBLING REJECTION

Question	Good	Poor	Fair
4A	6	0	0
4B	8	0	0
4C	8	0	0
5A	7	0	0
5B	10	0	0
5C	7	1	2
6A	7	0	0
6B	10	0	0
6C	9	0	1
7	10	0	0
8	9	0	0
9	9	0	1

TABLE IX C

MATRONS' ASSESSMENT OF CHILD'S OVERALL ADJUSTMENT TO
TRAINING SCHOOL (QUESTION 9) IN RELATION
TO SIBLING ACCEPTANCE - REJECTION

Rating	Accepting	Rejecting	Total
Good	12	9	21
Poor	1	1	2
Total	13	10	23

N = 23	Combined	
	Accepting	1 fair + 0 poor
	Rejecting	1 fair + 0 poor

$$\chi^2 = .304$$

question 9 in relation to sibling acceptance and rejection, and the results were computed statistically by using Yates' correction for continuity. The result showed that the null hypothesis could not be rejected at the .05 level of significance with one degree of freedom.

Sociometry may be described as a means of presenting simply and graphically the entire structure of relations existing at a given time among members of a given group. The major lines of communication, or the pattern of attraction and rejection in its full scope, are made readily comprehensive at a glance.^{1/}

It was for this reason that the sociometric test was applied to one phase of this study. This test was utilized to show graphically the sociability of the child; this was intended to show the child in relation to choosing and in relation to being chosen. The use of this test was administered through the co-operation of the teaching staff at the Training School. Written directions^{2/} were given to the teachers for the purposes of clarity and continuity.

1/ Helen Hall Jennings, SOCIOMETRY IN GROUP RELATIONS; American Council on Education, 1948, p. 11.

2/ Appendix D

It must be mentioned that the number of children varies in each class, ranging from four to eleven pupils. This posed a limitation on the use of the sociometric test because three had been chosen as the specific number of choices to be allowed for each child in the study. Where there were only four children in a classroom, it was realized that the results would not be as significant as originally anticipated. The analysis of data from such a test may be plotted on a sociometric matrix, and this may be extended to a sociogram, which is a diagram which makes clear the network of acceptance or rejection. Table X illustrates the sex of the child, and the number of first, second, or third choices he (or she) received. This table is a compilation of the several sociometric matrices utilized. Table XI A is a sociometric matrix, showing who chooses whom in one particular group. Table XI B is an example of the sociogram presenting the same data graphically.

As can be seen by the foregoing, this study did not enable the two stated null hypotheses to be rejected; thus the converse of these hypotheses which

TABLE X

COMPILATION OF CHILDREN'S CHOICES FROM
THE VARIOUS SOCIOMETRIC MATRICES

Schedule Number	Sex	1st Choice	2nd Choice	3rd Choice
1	M	0	2	1
2	M	2	1	0
3	M	1	1	3
4	M	2	0	0
5	M	0	0	3
6	F	3	0	0
7	F	1	2	1
8	M	0	0	0
9	F	1	2	2
10	F	1	1	2
12	M	0	0	3
13	F	0	1	1
14	M	0	0	0
15	F	0	0	1
16	F	0	1	0
17	F	2	3	1
18	F	0	0	0
19	M	3	1	0
20	M	1	1	0
21	M	0	3	1
22	M	1	1	2
23	F	3	0	0
24	M	0	1	1
26	M	1	2	1
27	F	1	0	0
28	F	1	1	3
29	F	0	0	2
30	M	0	3	1
31	M	0	3	0
32	F	1	1	1
33	F	0	1	0
35	M	3	1	1
36	M	1	1	1
39	F	4	0	1
40	M	3	0	2

TABLE X

CONTINUED

Schedule Number	Sex	1st Choice	2nd Choice	3rd Choice
41	M	1	0	0
42	M	1	2	1
43	F	0	0	2
44	F	0	1	1
45	M	3	0	1
47	F	4	1	1
48	F	2	0	0
49	M	2	1	1
50	M	0	1	2
51	M	1	1	1
54	F	3	0	0
55	M	3	2	0
56	F	0	0	0
57	M	1	1	1
58	M	1	1	0
59	M	1	0	1
60	F	0	1	1
61	M	1	0	3
62	F	2	2	2
63	F	1	0	1
64	F	2	1	1
65	F	0	0	0
66	M	1	2	1
67	F	0	4	0
68	F	1	0	0
69	F	0	1	0
70	F	0	2	0
71	M	2	0	1
72	F	0	2	1
73	M	1	0	1
74	M	0	0	2
75	F	1	0	3
76	F	1	2	0
77	F	2	1	1
78	F	0	1	3
79	M	1	2	0
80	F	0	2	0

TABLE X
CONTINUED

Schedule Number	Sex	1st Choice	2nd Choice	3rd Choice
81	M	0	3	0
82	M	1	1	0
83	M	3	1	1
84	F	3	1	0
85	F	2	2	0
86	M	2	2	3
87	M	3	1	3
88	M	3	0	0
89	M	0	2	0
90	M	1	0	4
91	F	0	1	3
92	M	2	2	2
93	M	1	0	2
94	F	1	0	0
95	M	0	1	3
96	M	1	1	1
98	F	2	1	0
99	F	2	2	1
101	F	1	4	1
102	M	0	1	0
103	M	2	1	1
104	F	0	0	0
105	F	2	0	2
106	F	0	3	0
107	F	1	1	2

TABLE XI A

SOCIOMETRIC MATRIX - SHOWING WHO CHOOSES
WHOM FOR COMPANIONSHIP SOCIABILITY
FOR ONE GROUP

	A	B	C	D	E	F	G	H	I	Sex	Schedule No
A		3			2	1				F	* NN
B					3		2	1		F	91
C	1	3		2						F	56
D	2					3		1		F	33
E							1	2	3	F	47
F					1		3	2		F	63
G		3			1			2		F	9
H		2			1		3			F	17
H					1		2	3		F	NN
1st Choice	1	0	0	0	4	1	1	2	0		
2nd Choice	2	1	0	1	1	0	2	3	0		
3rd Choice	0	3	0	0	1	1	2	1			
Total <u>1/</u>	3	4	0	1	6	2	5	6	1		

* NN refers to children not included in our study.

1/ Total row at bottom shows the relative position of each child in the class in terms of being accepted.

were stated in Chapter III were not accepted. Since there was no rejection of the null hypothesis at the .05 level of significance, there will be no inference regarding the affect that familial patterns of coping behavior have on the subsequent patterns of functioning of the mentally retarded child. Although no inference may be made concerning the hypothesis as a whole, it must be mentioned that separate testing of the child's performance in the three areas, personal, social, and academic, indicated that at the .05 level of significance there was a correlation between parental acceptance and rejection of the mentally retarded child and the child's inter-personal relationships.

However, it is necessary to recapitulate some of the reasons which may have produced the results of this project. It is hoped that the limitations were understood as they were explained initially in relation to their effect on each phase of the study. The five point system of rating each child, and the method used as a check for reliability, imposed the most severe limitations upon this study. This, coupled with fact that personal value judgements biased the rating,

resulted in the discarding of much information. The latter was most noticeable in the child receiving a fair rating by one judge, and a poor one by the other independent judge. Thus although a pattern did seem to evolve from the reading of the records, much of this pattern was unused.

The "expo facto" nature of the records has already been explained as a limitation on the nature of this study. As one would expect, such records are based on information pertinent to the child's admission to the school. Consequently although feelings may be included, they are often recorded as attitudes which are conveyed to the one interpreting the situation, rather than as true parental or sibling feelings. In either case, the parents or siblings feelings are definitely subjective. However, it is felt that this subjectivity was an asset in this study. The use of professional judgements is also noted as a limiting factor on the nature of the study, mainly because the matrons and teachers assessed the child in relation to his adjustment as evident in situations relevant only to their contact with the child.

Being unable to reject the null hypotheses and to accept their converse, another test was applied to determine whether the variables of age, sex and intelligence had any influence on the child's performance in the personal, social and academic skills. Fisher's exact test of significance for a 2×2 table which was explained in the preceding chapter was utilized. The region of rejection was specified at the .05 level, and thus anything equal to or less than .05 (probability) was rejected.

Table XII A and XII B respectively illustrate the influence a male and female child's intelligence quotient has on his school adjustment (question 19 on schedule). Similar tables were set up for each subsequent question on the schedule and their results were computed statistically. Tables XII C₁ and XII C₂ illustrate the sample used for each question, the poors and fairs combined, and the statistical result obtained by using Fisher's test. One degree of freedom was used consistently throughout the testing. Again it is necessary to state that the five point rating scale was modified to three, and subsequently

TABLE XII A

QUESTION 19 (SCHEDULE) - FEMALE CHILD'S I.Q. IN
RELATION TO SCHOOL ADJUSTMENT

Rating	Good	Poor	Totals
35 - 50 trainable	5	1	6
51 - 75 educable	8	10	18
Total	13	11	24

N = 24	Combined	
	35 - 50	-- 1 poor + 0 fair
	51 - 75	-- 1 fair + 3 poor

$p = .119$

TABLE XII B

QUESTION 19 (SCHEDULE) - MALE CHILD'S I.Q. IN
RELATION TO SCHOOL ADJUSTMENT

Rating	Good	Poor	Total
35 - 50 trainable	4	1	5
51 - 75 educable	11	4	15
Total	15	5	20

N = 20	Combined	
	35 - 50	-- 0 fair + 1 poor
	51-- 75	-- 2 fair + 2 poor

$$p = 4.865$$

TABLE XII C₁

PRESENTATION OF STATISTICAL RESULTS USING FISCHER'S
EXACT TEST FOR SIGNIFICANCE WITH EACH INDICATOR
PERTINENT TO CHILD'S PERFORMANCE-MALES

Question	Sample	Combined Pairs Plus Pairs	Probability
17 - Relation to Peers	24	35-50 2 fair 4 poor	.013
		51-75 2 fair 0 poor	
18 - Relation to Adults	13	35-50 1 fair 0 poor	.154
		51-75 - -	
19 - School Adjustment (Table XII A + B)	24	35-50 1 poor 0 fair	.119
		51-75 7 fair 3 poor	
20 - School Progress in light of I.Q.	11	35-50 1 fair 0 poor	.364
		51-75 1 fair 2 poor	
22 - Personal Skills	21	35-50 1 fair 2 poor	.688
		51-75 2 fair 0 poor	

.05 level of significance - 1 degree of freedom

$$p = .05$$

TABLE XII C₂

PRESENTATION OF STATISTICAL RESULTS USING FISCHER'S
EXACT TEST FOR SIGNIFICANCE WITH EACH INDICATOR
PERTINENT TO CHILD'S PERFORMANCE-FEMALES

Question	Sample	Combined Fairs Plus Poores		Probability
17 - Relation to Peers	25	35-50	0	.291
		51-75	2 fairs 3 poor	
18 - Relation to Adults	24	35-50	2 fair 0 poor	.725
		51-75	3 fair 1 poor	
19 - School Adjustment (Table XII A + B)	20	35-50	0 fair 1 poor	4.865
		51-75	2 fair 2 poor	
20 - School Progress in light of I.Q.	24	35-50	0	.129
		51-75	9 fair 0 poor	
22 - Personal Skills	22	35-50	2 fair 2 poor	.324
		51-75	1 fair 7 poor	

.05 level of significance - 1 degree of freedom

$$p = .05$$

the fairs were combined with the poors, presenting a bias working on behalf of this study. The use of the rating scale, re-enforced by the system of inter-judge reliability, imposed a limitation on this phase of the study. This is again shown in the varying number of samples, where only those cases on which the judges initially agreed were utilized. Thus it is again presumed, that having observed a pattern in reading the records, that valuable information was discarded by the use of inter-judge reliability, and the influence of personal value systems. It is also necessary to explain the rationale behind dividing the intelligence into 2 groups. It was thought that it would be more meaningful to compare educable and trainable children, rather than to compare random classifications, such as 35 - 45; 45 - 55; with each other. Another limitation on this study, particularly on this phase, is the emphasis placed on intelligence tests which become the criteria on which a child will be placed in a certain category - custodial, trainable or educable. It is generally recognized that the instruments used to test the child's intelligence are inadequate. Before a child is admitted to the Training

School, a psychologist's report must be presented to the Admissions' Committee. It was found that W.I.S.C. and the Stanford Binet were used interchangeably in such reports. This was not found to interfere with the nature of this study, as the reliability and relatedness is recognized as 85% or greater. It was found (by using Fisher's test) that a male child's intelligence may have some relation to his socialization process with peers. The result of this test yielded a numerical value of $p = .01$.

The data was also charted to determine whether the mentally retarded child's age influenced his pattern of functioning, and again Fisher's exact test for significance was applied. Tables XIII A and XIII B respectively illustrate the tabulation and statistical result of the relationship between age and development in personal skills. Tables XIII C₁ and XIII C₂ illustrate the statistical result that age has on the remaining questions in the schedule pertinent to this study. The age dichotomy of 9 - 12, and 13 - 16 was selected, based on the evident social and school programs at the Training School. It is evident from the latter

TABLE XIII A

QUESTION 20 (SCHEDULE) MALE CHILDS' DEVELOPMENT IN
PERSONAL SKILLS IN RELATION TO AGE

Age	Good	Poor	Total
9 - 12	8	5	13
13 - 16	2	0	2
Total	10	5	15

$p = .428$

Combined	
N = 15	9 - 12 -- 4 fair + 1 poor
	13 - 16 -- 0 fair + 0 poor

TABLE XIII B

QUESTION 20 (SCHEDULE) FEMALE CHILD'S DEVELOPMENT IN
PERSONAL SKILLS IN RELATION TO AGE

Age	Good	Poor	Total
9 - 12	6	4	10
13 - 16	6	4	10
Total	12	8	20

$p = .428$

N = 20	Combined	
	9 - 12	-- 3 fair + 1 poor
	13 - 16	-- 4 fair + 0 poor

TABLE XIII C₁

STATISTICAL PRESENTATION ILLUSTRATING THE AFFECT
AGE HAS ON THE MALE CHILD'S PATTERNS OF
FUNCTIONING, AS SHOWN IN
QUESTIONS ON SCHEDULE

Question	Sample	Combined Fairs + Poores	p (Fisher's Test)
17 - Relation to Peers	24	9-12 2 fair	.735
		2 poor	
13-16 1 fair			
1 poor			
18 - Relation to Adults	26	9-12 3 fairs	.586
		1 poor	
13-16 2 fair			
0 poor			
19 - School Adjustment	19	9-12 3 fair	.110
		3 poor	
13-16 0			
20 - School Progress	15	9-12 4 fair	.428
		1 poor	
13-16 0			
22 - Development in Personal Skills (Table XIII A + B)	23	9-12 2 fair	.508
		2 poor	
13-16 1 fair			
0 poor			

TABLE XIII C₂

STATISTICAL PRESENTATION ILLUSTRATING THE AFFECT AGE
HAS ON THE FEMALE CHILD'S PATTERN OF
FUNCTIONING, AS SHOWN IN
QUESTION ON SCHEDULE

Question	Sample	Combined Fairs + Poors		p (Fisher's Test)
17 - Relation to Peers	26	9-12	5 fair 3 poor	.697
		13-16	1 fair 0 poor	
18 - Relation to Adults	11	9-12	0	.820
		13-16	0	
19 - School Adjustment	26	9-12	7 fair 1 poor	.495
		13-16	3 fair 2 poor	
20 - School Progress	20	9-12	3 fair 1 poor	.665
		13-16	4 fair 0 poor	
22 - Development in Personal Skills (Table XIII A + B)	22	9-12	2 fair 4 poor	2.23
		13-16	2 fair 4 poor	

that the child's performance in the personal, social, and academic skills is not dependent on age.

The final chapter will discuss the findings of this study, independent of the limitations described. Implications for the social work profession will be postulated and an appropriate role for social workers will be recommended.

CHAPTER VI

CONCLUSIONS AND RECOMMENDATIONS

The parents of seventy-six children and the siblings of twenty-four of these children, drawn from a population of one hundred and seven mentally retarded children admitted to the Nova Scotia Training School for the calendar years 1961, 1962, 1963, 1964 and 1965, and who are presently attending the school were studied for the purpose of testing the following hypotheses.

- (1) If parents of a mentally retarded child are able to cope effectively with the stress of having a mentally retarded child, then the child's behavioral patterns should parallel his capacity.
- (2) If the siblings of the mentally retarded child are able to cope effectively with the stress of having a mentally retarded sister or brother, then this will markedly influence the retarded child's pattern of functioning.

Yates' correction for continuity (chi square) was applied to the null hypotheses and did not support them. The accepted level of significance for this study was specified as .05 with 1 degree of freedom

used consistently. The study attempted to reject the null hypotheses and consequently to accept its converse. χ^2 must therefore be equal to or greater than 3.84. All statistical computations, except 2, yielded a numerical value less than 3.84; therefore the forementioned hypotheses could not be accepted. However, as suggested the study did yield some significant results. Specifically, at the .05 level of significance the study showed that there was a correlation between parental acceptance / rejection of the mentally retarded child, and the child's performance in the social skills, that is, the child's inter-personal relationships. The study indicated that there was no correlation between parental acceptance / rejection and the child's performance in the personal and academic skills.

Similarly, this study suggested that there was no correlation between sibling acceptance / rejection and the retardates' patterns of functioning.

Fisher's exact test for significance for a 2 x 2 contingency table was utilized to determine the affect the variables of age, sex, and intelligence

quotient had on the child's subsequent patterns of behavior. Exact probability was specified as .05, with one degree of freedom. If p were equal to or less than .05 then it could be said that the variable influenced the child's behavioral patterns. Only in one instance did the result prove significant at the specified level. It was found that the intelligence quotient of males, where $p = .013$, influenced the child's relations with his peers.

In summary, it is evident that no inference of statistical significance evolved from the nature of this study. However, in the preceding chapter it has been suggested that a pattern did show itself as the data was recorded from case histories, specifically that children of rejecting parents did not initially do as well in their adjustment to the institution, as did the children of accepting parents. It would seem that the results of the above tests do not disprove the two forementioned hypotheses completely, rather only for the group tested. It is contended that the many limitations elicited in the nature of the methodology caused the inconclusive

results the study produced. Another plausible explanation is the fact that most mentally retarded children respond to the attributes of a group setting which affords them a chance, through group cohesiveness, to develop their potential.

It is recommended, therefore, that future research students use this project as a Pilot Study, and proceed to study similar relationships between parental acceptance / rejection and the subsequent modes of behavior of the mentally retarded child. A necessary prerequisite to such research would include a more exact and precise methodology, one in which the variables of a continuum, and the five point system of rating are clearly defined and specified, so that consistency of judgement may be induced. It is suggested that personal parental interviews, structured along the casework approach, be utilized for more meaningful and exact results. Ideally it is believed that the results of the present study would have been different had the methodology been more rigorous.

Since the statistical results of this study allow no significant inference, one must turn beyond

the particular hypotheses outlined to the field of mental retardation in general. Implicit in this study are the implications that the field of mental retardation directs to social workers. In a field as old, and yet as new and unexplored as mental retardation, social services have been particularly scarce and undeveloped, and in a sense community agencies have reflected community nonacceptance of the retarded. This is understandable when one recognizes that initial efforts with the mentally retarded were quite naturally devoted to meeting the more immediate pressing medical, educational, and vocational needs and problems by the provisions of diagnostic and clinical services, educational programs, and vocational training and employment opportunities. However, within the past decade in Nova Scotia, there has been one dynamic force, the Nova Scotia Association for Retarded Children, mainly responsible for focusing attention on the mentally retarded children and propelling action on their behalf. Stimulated by the impetus of this association, re-enforced with the increasing numbers of retardees on the caseload of social agencies, the potential role of social workers

in this field is suggested.

Initially the parents of a mentally retarded child learn of their child's mental handicap through their physician. The way in which clinical findings are interpreted, questions answered, and suggestions for care are made, is of critical importance for the future of the child and his family. Parents often have much difficulty in comprehending facts about mental retardation, even when stated frankly and forthrightly. This is not a simple problem of communication. Frequently it is a subconscious or outright rejection of the diagnosis and an inability to face the problems which acceptance of the diagnosis would raise. The factors leading to rejection must be anticipated and recognized, and the parents must be helped to deal with their feelings. This should ideally involve a team work approach of physician and social worker. The parents' personalities determine the way in which they respond to their child's retardation; a social caseworker would help these parents understand and deal with the major defenses they bring to the situation. Most important a caseworker would help the parents accept their child with his

limitations, and to use their love to help him develop his potential. Presently in Nova Scotia there is no opportunity for parents of a mentally retarded child to encounter this casework service.

This is important to the social worker when we remember that unless the parents receive adequate help during this initial period, some of them may venture fruitlessly seeking a diagnosis and prognosis they want to hear. Others operating on the basis of denial, may exert undue pressure on their child to achieve unattainable goals. Sometimes such behavior can delay for years the working out of a satisfactory plan for the child's care; it may even retard his development and create complicating emotional problems.

In a family centered society, mental retardation of a child should be seen not as a mother's problem or as a father's problem but as a family problem requiring joint decision and action. Merely establishing a diagnosis and interpreting it is of limited value unless the parents receive accompanying supportive help in deciding upon, and carrying out their own immediate or long range plan

of care. With the emphasis on family dynamics, the needs of parents and siblings must be recognized. In some instances parents should be helped to express their growing but as yet unspoken conviction that institutionalization of their child may be the best solution for the family and child. In most instances, the need is for casework oriented to the child living at home. However, where institutionalization is necessary, should not the social worker, a specialist in feelings and relationships, act as a liason between the institutionalized child and the parents and siblings?

The problem situations confronting the social worker run the gamut from parents with inner strengths who need support only at times of crisis to those whose ability to meet their child's needs is complicated by such problems as serious emotional difficulties, marital conflict, excessive guilt reactions, or need to overprotect or reject their retarded child. Such parents require a great deal of help in order to give their child that which he needs emotionally. The needs of a retarded child are the same as any child, only accentuated. Their special needs take shape not only

abilities, difference of others. ^{1/}

Since the personal and social problems confronting the mentally retarded are manifold, the group worker's knowledge of community resources and skill in using them are of vital importance. The group worker can through the use of groups, strive to develop a new image of the mental retardate and then project it to society. The latent potential, including leadership potential of the mentally retarded for socially useful purposes can be discovered and yielded through group participation, and therefore the mentally retardate involvement in groups becomes a way to achieve social changes that will benefit him.

Mentally retarded groups have been, are, and should be formed and developed in a variety of settings operated under a number of auspices. Some are in community centers, settlement houses, public recreation programs, sheltered workshops, activity centers, institutions, parents groups, and more recently religious Sunday School classes. Some

^{1/} Gisela Konopka, SOCIAL GROUP WORK: A HELPING PROCESS; Prentice - Hall, Inc., New Jersey; 1963. p. 14.

by virtue of the fact that as persons they are different from us in some ways, but also because they are similar to us in many ways. Social casework services are, or therefore, should be directed towards preventing an experience where the mentally retarded child lacks a feeling of self-respect or considers himself a failure, and towards promoting a positive atmosphere in which he can grow and develop a healthy personality. Social services should be extended beyond the parents to the child himself, where needed, to help him work out a picture of himself, in terms of his inter-personal relationships, separation fears, reactions to competitive pressures and hostile feelings.

The social issues of mental retardation do not end with casework involvement but are extended to other mediums of social work - group work and community organization:

The objectives of the group worker would include provision for personal growth according to individual capacity and need, the adjustment of the individual to other persons, to groups, and to society, and the motivation of the individual towards the improvement of society; the recognition of his own rights,

are social work sponsored - most are not.

Ideally the objectives of group work with mentally retarded children should include:

- (1) providing a medium of enjoyment for the mentally retarded, aiding them in social adjustment
- (2) developing social skills that can be carried over into the home, community, or employment
- (3) providing a setting that will aid them in social adjustment and functioning; one that provides a small intimate face-to-face experience with others of similar background, including those of opposite sex
- (4) furnishing experiences to help the mentally retarded accept themselves and the limitations, imposed by their retardation, as well as to utilize their capacities to increase their feelings of self-worth
- (5) supplying means of freeing parents for a few hours weekly of supervision and of helping them carry over into the home and community, attitudes that promote increased independence in their children.

It is stated that the ultimate answer to mental retardation lies in prevention. It would seem that as social workers, our role in this area is two-fold:

- (1) a concern for the organic et alia causes of mental retardation, through a concern with the availability of prenatal services, their accessibility, and policies regarding eligibility
- (2) a concern for the prevention of family emotional pathology, and the reduction of the hazards of emotional complications for the child.

To actualize the latter preventative measure, must not we, as social workers, individualize the retardate (and his family), and begin to diagnose and treat him with the respect and dignity of a human being?

A P P E N D I X

MARITIME SCHOOL OF SOCIAL WORK

Thesis Research Project, 1965
Nova Scotia Training School

oc65
chs/mp

Schedule for Assessment
of Child's Record

1. Schedule No. _____ 2. Completed by _____ 3. Edited by _____
initials date initials

4. Child's IQ: _____ 5. Child's age _____ 6. Child's sex _____

7. Child grew up with (circle): natural / step / adoptive / foster parents

() Check here if present parent figures are not those with whom the
child grew up from birth. Explain

8. Number of siblings _____ 9. Ages and sex of siblings:

10. Father's (or breadwinner's) occupation:

11. Highest grade completed by breadwinner:

12. Family's place of residence or address:

13. Family's ethnic origin:

14. Family's religion and attitudes:

15. Was parental attitude to child with his handicap

:.....:.....:.....:.....:
very accepting : rejecting very
accepting : rejecting

() explicitly or () implicitly or () uncertain from the record

16. Was child's adjustment to administrative requirements of institution

:.....:.....:.....:.....:
very good good : poor very poor

() explicitly or () implicitly or () uncertain from the record

Appendix A

17. Were child's relations to his peers in the institution

.....:.....:.....:.....:
very good good : poor very poor

() explicitly or () implicitly or () uncertain from the record

18. Were child's relations to adults in the institution

.....:.....:.....:.....:
very good good : poor very poor

() explicitly or () implicitly or () uncertain from the record

19. Was child's adjustment to the school in the institution

.....:.....:.....:.....:
very good good : poor very poor

() explicitly or () implicitly or () uncertain from the record

20. Was child's progress in the school program, in the light of his IQ

.....:.....:.....:.....:
very good good : poor very poor

() explicitly or () implicitly or () uncertain from the record

21. Note here any specific assessments or indicators by which progress could be measured that are shown in the record

22. Was child's development of personal skills (grooming,etc), in the light of his IQ

.....:.....:.....:.....:
very good good : poor very poor

() explicitly or () implicitly or () uncertain from the record

Comments

6. Does this child accept the limits of institutional living (rise on time, meals on time, bed on time, communal eating, sleeping, etc)

.....::::
very	fairly	:	occasionally
consistently	consistently	:	rarely

.....::::
without being	with occasionally	with being told	with being told
told	being told	freq'ntly	always

.....::::
very	willingly	:	grudgingly
willingly			very
			grudgingly

7 Does this child seem to feel cheerful

.....::::
always	frequently	:	occasionally
			rarely

8. Does this child seem homesick

.....::::
rarely	occasionally	:	frequently
			always

9. Does the child's overall adjustment seem to be

.....::::
very	good	:	poor
good			very
			poor

Comments

7. Is the child's behaviour in the classroom

:very good.....:good.....:poor.....:very poor.....:

8. Does the child obey direct orders

.....:.....:.....:.....:
VERY CONSISTENTLY fairly consistently occasionally rarely

.....:.....:.....:.....:
without being told with occasionally; with being with being
being told ; told frequently told always

.....:.....:.....:.....:
VERY willingly willingly grudgingly very grudgingly

9. How does the child perform in his work in the light of his IQ

.....:.....:.....:.....:
VERY GOOD good ;poor very poor

10. Was the child's progress in the school program, in the light of his IQ

.....:.....:.....:.....:
VERY GOOD good ; poor very poor

11. Does the child's overall adjustment in the classroom seem to be

.....:.....:.....:.....:
very good good ; poor very poor

COMMENTS

MARITIME SCHOOL OF SOCIAL WORK

Thesis Research Project, 1965
Nova Scotia Training School

oc65
chs/mp

Teacher's Guide for Socio-
gramming

Please follow these directions exactly, so that results from different classes will be based on identical instructions to all pupils. Thank you for helping.

1. Provide each pupil with a sheet of lined paper on which to write the name of each class member from your dictation. The order is not important, but the inclusion of every child in the group is important.

Say to the children:

2. "All of us want to work and play with some people more than with others. I would like to know with whom you like to play, and you can show me this with the paper you have. Your answers will not be shown to any other children in the school.
3. "First I want you to put the number "FOUR" in front of your own name. Do that now: put a "FOUR" in front of your own name.
4. "If you are a girl, write "GIRL" at the top of your paper. If you are a boy, write "BOY" at the top of your paper.
5. (Pause). "Put the number "ONE" in front of the name of the person in your classroom with whom you would most like to play. (Pause, then repeat).
6. (Pause). "Put the number "TWO" in front of the name of the person in your classroom with whom you would like to play if you could not play with your first choice. (Pause, then repeat).
7. (Pause). "Put the number "THREE" in front of the name of the person in your classroom with whom you would like to play if you could not play with your first or your second choice. (Pause, then repeat)."
8. Collect the papers in such a way that no child has an opportunity to see any paper but his own.
9. After class, turn the papers over to the investigators as arranged.

(Copies of the theses based on this work will be made available to the Training School just after graduation, should you wish to see what your helpfulness resulted in. And again, thank you for your help).

Appendix D

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BIBLIOGRAPHY

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