ABSTRACT

MATERNAL ATTITUDES AND VALUES IN RESPECT TO EMOTIONALLY DISTURBED AND PHYSICALLY DISABLED PERSONS

by Birendra Kumar Sinha

The study was designed primarily to ascertain the attitudes of mothers toward emotionally disturbed and physically disabled persons. "Personal contact" with the emotionally disturbed and the physically disabled was the basic variable investigated in the present study. Precisely, the influence of frequency and nature of contact on both content and intensity of attitudes was systematically explored. In addition, the present research aimed to examine evidence for predicted relationships between value systems of the subjects and attitudes toward the emotionally disturbed and the physically disabled. Two other dimensions investigated in this study were related to progressive versus traditional attitudes toward education and change orientations. Finally, an attempt was made to determine whether attitudes toward the disturbed and the disabled stemmed from popular stereotypes prevalent in the culture about mental illness and physical disability.

Three groups (two experimental and one control) were employed in this research. One experimental group was composed of mothers of emotionally disturbed children and the

other experimental group of mothers of physically disabled children. These mothers were utilizing professional help for their children in a mental health clinic and a physical rehabilitation center. Since "personal contact" with emotionally disturbed and physically disabled persons was the main concern for the study, it was considered important to select mothers whose contact with the emotionally disturbed and the physically disabled would be most intimate and frequent. Such a population was ideally available at a comprehensive community mental health, and a rehabilitation center located on the campus of the Betty Jane Memorial Center in Tiffin, Ohio, a typical midwestern, middle-sized community. The out-patient mental health services were provided by the Sandusky Valley Guidance Center, and the rehabilitation services for the physically handicapped were rendered by the Betty Jane Rehabilitation Center. Mothers of "normal," that is, non-handicapped children served as the control group. They were drawn from the city of Mount Pleasant, Michigan which is comparable to Tiffin in demographic composition. There was no statistically significant difference between the three groups in respect to education, income, and age.

The sample consisted of 60 mothers of emotionally disturbed children, 48 mothers of physically disabled children, and 69 mothers of normal children. The sampling, however, was not fully random on account of non-availability of appropriate subjects in the two experimental groups.

A battery of research instruments were used to measure attitudes, values, change orientations, and various demographic characteristics. They were: (a) the Handicapped Persons Scale, (b) the Emotionally Disturbed Persons Scale, (c) the Education Scale, (d) the Gordon Survey of Interpersonal Values, (e) the Personal Questionnaire (general), (f) the Personal Questionnaire: HP, and (g) the Personal Questionnaire: EDP. The questionnaires were self-administered in all cases, and the estimated time to complete the questionnaires was approximately three hours.

Unlike the psychoanalytic orientation of most studies on parent-child interactions, the theoretical framework of the present research was mainly social psychological. Within the purview of the social psychological framework, the nature of intergroup attitudes was viewed as relating to interpersonal values and contact variables such as frequency, enjoyment, and ease of avoidance of the contact. In keeping with the above theoretical orientation, 26 specific hypotheses were formulated which were classified into four major categories: (a) contact-intensity and contact-frequency interactions, (b) attitude-value interactions, (c) change orientation and attitude, and (d) general differences in attitudes reflecting cultural stereotypes.

The main hypothesis relating to contact-intensity interaction was that higher frequency of contact with the disturbed and the disabled produced greater intensity of attitude regardless of attitude content. In respect to contact-frequency

interaction, the major hypothesis was that high frequency of contact with the disturbed and the disabled is associated with favorableness of attitudes if, (a) there are other rewarding opportunities to engage, (b) the contact was enjoyable, and (c) the interaction could be easily avoided. The hypotheses pertaining to attitude-value interactions attempted to determine the role of "asset" and "comparative" value orientation in the maintenance of favorable or unfavorable attitudes. The change orientations selected for the study were: health practices, birth control practices, automation, political leadership, and self-change. Finally, the main hypothesis in the last category was that mothers of normal children would express more favorable attitudes toward physically disabled persons than toward emotionally disturbed persons.

The hypotheses were tested by means of analysis of variance, t-test, zero-order correlation, and multiple and partial correlations. The results were analyzed for the three groups of mothers, and the total sample, regardless of treatment.

The analyses of the results confirmed, in general, the impact of personal contact in the maintenance of favorable attitudes toward emotionally disturbed and physically handicapped persons. Amount of contact, however, was not the only factor which produced favorable attitudes. The nature of contact, such as enjoyment and avoidance of contact, was observed to be associated in some manner with favorableness of attitudes, although the results did not indicate any clear and definite correlational pattern between contact variables and

attitudes toward the disturbed and the disabled. Contact with education also did not per se produce favorable attitudes toward education.

Contrary to expectation, more frequent contact appeared to produce low intensity of attitudes toward emotionally disturbed and physically disabled persons. However, high frequency of contact with education did not result in lower intensity of attitude. No significant relationship was obtained between contact with education and intensity of attitudes toward education.

It was hypothesized that mothers of emotionally disturbed and physically handicapped children would be characterized by an asset value orientation rather than a comparative value orientation. The Benevolence sub-scale of the Gordon scale of values was used as a measure of asset value orientation while the Leadership and Recognition sub-scales were employed to measure comparative value orientation. But the analyses of the data did not yield consistent results to permit meaningful generalizations. However, it was found that mothers of emotionally disturbed children had significantly higher scores on the value of Support when compared to mothers of physically handicapped or normal children. On the otherhand, mothers of physically handicapped children expressed greater Conformity value orientation than did the mothers of emotionally disturbed or normal children.

The majority of the hypotheses relating to change orientations, and attitudes toward education were not confirmed

consistently, and as such no definite conclusions can be made on the basis of the present investigation.

One interesting finding of the study was that mothers of normal children had more favorable attitudes toward the physically disabled than toward emotionally disturbed persons. This was regarded as a reflection of the cultural stereotypes about mental illness as compared to physical disability.

The present research raised many further questions regarding theoretical and methodological issues inherent in a study of attitudes and values about highly complex social objects like emotional disturbance and physical disability. A major problem demanding serious consideration was noted to be the scaling technique. It was recommended that Guttman-Lingoes Multiple Scale Analysis (MSA I), which allows for multi-dimensional analysis of data in addition to multi-unidimensional analysis, be used in future studies. Guttman's facet theory (1959, 1961) appeared to be impressive in resolving problems related to dimensionality of attitude, concept equivalence, and item sampling. This theory suggests that the attitude universe represented by the item content can be substructured into components which are systematically related to the number of identical conceptual elements held in common. The substructuring of relationships between various components of the attitude universe thus allows for meaningful intergroup comparisons.

It was also pointed out that a different conceptual framework was needed to measure values in view of the failure

of the present approach (in terms of asset and comparative value orientations) to provide consistent results.

The findings of the present research indicate a need for longitudinal studies in this area. In the least, a comparison of groups before and after exposure to the attitude objects was considered a preferable design for making meaningful generalizations.

MATERNAL ATTITUDES AND VALUES IN RESPECT TO EMOTIONALLY DISTURBED AND PHYSICALLY DISABLED PERSONS

By

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CHAPTER I

INTRODUCTION

The field of mental health and rehabilitation has been witnessing a gradual but steady shift from treatment of illness to preventive intervention by the community. Although the traditional psychiatric methods of patient care have not proved to be completely unprofitable, greater faith is currently being placed on new approaches to interpersonal behavior encompassing a host of social psychological variables (Adams, 1964; Bandura, 1961; Leary, 1957; Rees, 1957; Szaz, 1960). This current trend in the professional and academic approaches to emotional disturbance and physical disability has manifested itself in increasing emphasis on the community mental health movement.

Nature of the Problem

The comprehensive community mental health and rehabilitation programs have become the most exciting and worthwhile endeavors of the present decade in the fields of both behavioral sciences and medicine. The concern for the community treatment programs have been stated most succinctly in a recent publication of the American Psychiatric Association entitled Training the Psychiatrist to Meet Changing Needs:

> . . . we have seen the favorable impact of milieu therapy and group therapy, the introduction of new drugs that relieve distressing mental systems, and advances in genetics, biochemistry, and physiology that are directly relevant for psychiatry. It has become increasingly possible to treat mentally ill patients in the community. This trend has encouraged the study of family relationships and of the possibility of constructive intervention in a period of crisis in the interpersonal relationships of family members. It has greatly enhanced interest in rehabilitation and aftercare. It has significantly changed community attitudes toward the mentally ill.
> The shift of treatment of acute psychiatric illness from the isolated mental hospital into the community, a shortening of the period for inpatient care with day hospital and outpatient facilities providing support after discharge, focus of attention upon extramural resources for all types as a result of earlier discharge of a hospitalized patient, and recognition of the necessity of a continuum of treatment in the community are some of the consequences of these far-reaching developments in recent times (American Psychiatric Association, 1963, p. 10).

The newer and broader perspectives concerning behavior problems appear to be a reaction against the "disease model" which started about 150 years ago and is still popular with some psychiatrists and clinical psychologists. The medical model has been criticized as being too restrictive when applied to all forms of emotional problems. Frank (1961) states:

> Acceptance of the medical view of mental illness has led to neglect of groups and community forces in production and relief of distress and maintenance of beneficial changes (Frank, 1961, p. 221).

Apparently, public interest in this vital issue of mental illness and rehabilitation has gained momentum after the publication of the findings of the Joint Commission on Mental Health (1961) that was established by Congress under the aegis of the Mental Health Study Act of 1955. The report

indicated, inter alia, greater flexibility in services provided for the mentally ill with minimum disruption of the patient's normal role in the community. In this connection, it is worthwhile to mention the testimony of Nicholas Hobbs (1963) given before the Subcommittee on Labor and Public Welfare, 88th Congress, First Session:

> Historically, a great step forward was made when mental disorders were declared to be an illness, and the sufferer to be in need of treatment rather than punishment. But the concept of mental disorder as the private illness of a person is no longer sufficient. . . . They grow out of, are exacerbated by, and contribute to family and community disorganization (Hobbs, 1963, p. 295).

However, greatest impetus to this public health approach of organized community planning for prevention, treatment, and rehabilitation of mental and physical disabilities came from the epoch-making Message on Mental Illness and Mental Retardation to the Congress of the United States on February 5, 1963. The President's message underscored the community responsibility with all of its ramifications. President Kennedy said:

> Central to a new mental health program is comprehensive community care. Merely pouring Federal funds into a continuation of the outmoded type of institutional care which now prevails would make little difference. We need a new type of health facility, one which will return mental health care to the main stream of American medicine, and at the same time upgrade mental health services (Kennedy, 1963, p. 4).

President Kennedy's vision of Comprehensive Community Mental Health Services came closer to realization when early this year, President Johnson signed into law new mental health legislation expanding the scope of the state

and federal support given to the community mental health services.

Thus, it is not surprising to find that the zeitgeist has led to the formation of various committees by the American Psychological Association with a view to developing a new multidisciplinary program of service and training in the field (Bennet, 1965; Brayfield, 1965; Smith and Hobbs, 1966; Yolles, 1966).

In this era of growing humanitarian values and scientific innovations, specific problems associated with physical handicap have also been given considerable recognition both by the public, through legislation and appropriations, and professionals. Responsible civic leaders in different walks of life are beginning to realize that physically disabled persons need not be considered a burden to the materialistic, achieving society requiring only medical rehabilitation. Psychological rehabilitation is most intimately connected with the problem of physical handicap since it involves such complex personality factors as self-image, identity, personal worth and sense of belongingness (Wright, 1960).

Multidisciplinary approaches to the rehabilitation programs for the physically, emotionally, and intellectually handicapped have, unquestionably resulted in a significantly advanced knowledge concerning the contribution of environmental factors in producing illness or health. However, our understanding of the specific variables, such as family,

home, social class, cultural expectations, and parental and public attitudes are still very limited.

The development of a comprehensive community program for the care of emotionally ill, mentally retarded and physically disabled depends, at least partially, upon the prevailing attitude of the citizen living in the communities. The imaginative leadership of President Kennedy in the planning of community services characterized as the "bold new approach" was, of course, instrumental in the congressional grant of federal matching funds for constructing community mental health centers. Nevertheless, as cautioned by Dr. Walter Barton, Medical Director of the American Psychiatric Association:

> The rejecting attitudes of the public (and of professionals) will impede efforts to treat seriously ill persons living in the community; for all that has been done to further acceptance of the mentally ill, enormous improvement, especially through structured programs of public education, is still needed (Barton, 1965, p. 3).

As stated earlier, a precise knowledge of the attitudes of different sections of the community would be highly significant in planning and developing such centers. In spite of the growing recognition of the value and importance of the pervasive influence of the community on planning and operation of mental health and rehabilitation centers, unfortunately, there have been few research studies in this area attempting to uncover factors related to the development, maintenance, and change of attitudes toward emotionally disturbed or physically disabled persons.

Generally speaking, parents have been a very important catalytic agent of social progress in a civilized society. Parental attitudes and values not only influence the development of the child's personality, but they also serve as effective guidelines for establishment of new programs for social change. Hence, an analysis and scientific appraisal of parents' attitudinal structures and value systems in regard to mental health and physical rehabilitation would go a long way in meeting the needs of the society.

Whereas it is necessary to determine the manifold correlates of parental attitudes toward emotional disturbance and physical disability, it is perhaps equally important to assess the more or less crystallized attitudes of parents who have been directly exposed to such disabilities. Knowledge of these attitudes would allow for structuring of comprehensive mental health and rehabilitation programs and initiating desirable changes in the existing service facilities. Moreover, the parents who have been using such services under the force of circumstance would be ideally suited to be the nucleus for any public education program in this field of vital community interest.

The present research, therefore, has a defined population of the mothers of children who are using the facilities and services of their local community mental health and rehabilitation centers. The Betty Jane Memorial Center in Tiffin, Ohio, is an unique complex providing facilities for

the out-patient treatment of various kinds of disabilities. This is a growing institution particularly geared to the local needs of the community. Its service facilities are constantly expanding with a view to meeting the needs of the community. The future planning of these facilities, however, would profit from a proper evaluation of the parents' attitudes and values.

The present research will be confined to the exploration of relationships between specified variables pertaining to personal contact, interpersonal values, change orientation, educational orientation, and attitude. The underlying assumption is that both contact and value variables function as determinants of attitudes.

Methodological problems will also be given adequate consideration in measuring attitudes and values within a specific theoretical framework.

Statement of the Problem

The purpose of this study is to investigate the attitudes and values of mothers toward emotionally disturbed and physically disabled persons. The mothers included in the experimental groups are those using services of a mental health clinic and a rehabilitation center for their emotionally disturbed and physically disabled children, respectively. The control group consists of mothers of normal children. Thus, the present study will attempt to assess the differential attitudes and values of mothers who are receiving

professional help for their children either in a community mental health clinic or in a rehabilitation center (for physically disabled persons) toward mental and physical disabilities.

The mothers' attitudes toward emotional disturbance and physical disability will be measured by attitude scales. Selected interpersonal values will also be measured for all groups of mothers. Within the purview of this major problem, an attempt will also be made to relate the degree and direction of attitudes to other variables from a theoretical standpoint. In this manner, predictability of these selected variables will be determined. Precisely, contact with emotionally disturbed and physically disabled persons, value system, and educational orientation of the parents will be given special consideration.

Assuming that the degree and nature of interpersonal contacts with particular social objects such as the subgroups constituted by the emotionally disturbed and physically disabled, are significant factors in determining attitudes, the present study will, thus, undertake to assess the amount and kinds of experiences that the respondents have had with emotionally disturbed and physically disabled persons.

Another major problem is to investigate the value system of the parents in relation to their existing attitudes. It has been suggested by theory (e.g., Wright, 1960) that persons who view others as having intrinsic worth should hold favorable attitudes toward the disabled. Unfavorable

attitudes are likely to be expressed by those who judge others in terms of more absolute comparative standards.

In similar vein, it will be determined whether the amount and kinds of educational experiences of the mothers are related to their attitude scores toward education and toward emotionally disturbed and physically disabled persons.

In addition to the above-mentioned specific problem areas, a more general purpose of the present study will be to make maximum informational use of the ensuing research data in the formulation of realistic guidelines for a comprehensive mental health and rehabilitation program at the community level. With the help of modern computers, it is possible to analyze the various personal and demographic data obtained through the study in exploring interrelationships between diversified variables. This might provide new insight and suggestive cues to the planners of comprehensive community rehabilitation programs.

Thus the primary purpose of this investigation is to study the relevant factors associated with maternal attitudes toward emotional and physical disabilities.

The current research project is also related to a larger cross-cultural study[1] of attitudes toward education and toward disability or handicapping conditions.

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[1]The larger study is under the direction of Dr. John E. Jordan of the College of Education, Michigan State University. It uses national samples such as Costa Rica, Peru, Columbia, England, Holland, Belgium, France, Denmark, Yugoslavia, and Japan.

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Definition of Terms

Since the concepts and terminology used in this study have different connotations in the psychological literature, it is necessary to define these terms operationally.

Attitude.--The definition by Guttman (1950, p. 51) will be used in this research. An attitude is a "delimited totality of behavior with respect to something.[1] For example, the attitude of a person toward Negroes could be said to be the totality of acts that a person has performed with respect to Negroes."

Attitude component.--Various investigators have conceived of components of attitudes in accordance with their theoretical orientations (e.g., Katz, 1960, p. 168; Rosenbere, 1960, pp. 320, ff; Guttman, 1950, ch. 9). Although Guttman defines several components according to certain mathematical properties, the two components typically considered are those of belief and intensity. In this study, therefore, item content (or belief) will be the first component whereas item intensity will be the second (cf. Guttman, 1950, ch. 9; Suchman, 1950, ch. 7).

Attitude content.--The actual item statements within an attitude scale has been referred to as the attitude content component.

Attitude intensity.--This is another component of attitude which refers to the affective statements that a respondent makes regarding each content item. Operationally it consists of a separate statement for each attitude item

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[1]Author's italics.

on which the respondent may indicate how strongly or sure he feels about the content statement.

Attitude scale.--As interpreted in this study, a scale is a set of items which fall into a particular relationship in regard to the ordering of respondents. A set ot items can be said to form a scale if each person's responses to each item can be reproduced from the knowledge of his total score on the test within reasonable limits of error (e.g., Guttman, 1950, ch. 3; Stouffer, 1950, ch. 1).

Value.--According to Kluckhohn (1951, p. 411), "a value orientation may be defined as a generalized and organized conception, influencing behavior, of nature, of man's place in it, of man's relation to man, and of the desirable and nondesirable as they may relate to man-environment and interhuman relations." Within the framework of this general definition, the present study has focused upon the value sub-set of "man's relation to man," or, interpersonal values. Essentially, two interpersonal value categories are adopted--(a) asset values and (b) comparative values. Asset values predispose a person to evaluate others according to their own unique potentials and characteristics. On the other hand, comparative values predispose a person to evaluate others according to external criteria of success and achievement (Wright, 1960 pp. 128-133). Operationally, these values are defined by three scales on the survey of Interpersonal Values (Gordon, 1960). Asset values will be measured by the Benevolence

Scale, comparative values by the Recognition and Leadership Scales. These scales were judged by the researcher to have acceptable construct validity for the measurement of the values proposed by Wright. Additional value orientations measured by the Gordon Survey of Interpersonal Values are labeled Support, Conformity, and Independence.

Emotional disturbance.--This refers to those children or adults whose behaviors, feelings or emotions cause them to have difficulties with every day problems which they are unable to solve.

Impairment.--This term signifies a defect in tissue or in body structure; and as such it has no particular functional connotations.

Handicap.--This refers to the social disadvantages placed upon a physically impaired person as a result of impairment. A handicap is a consequence of culturally held values and attitudes which serve to define the physically impaired person socially.

Physical disability.--This is a functional term which denotes some loss of the tool function of the body. An approximate synonym for this term is "physically incapacitated." The technical distinction between "handicap" and "disability" is, however, not very meaningful to the mothers used in this research. Therefore, throughout the research the term handicap was used with the mothers to denote what has been technically defined herein as disability.

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Rehabilitation.--As defined by Jordan (1964), this term refers to "restoration of the disabled to the fullest physical, mental, social, and vocational usefulness possible."

Educational progressivism.--Kerlinger (1958) has developed a ten-item scale of progressive attitudes toward education.

Educational traditionalism.--Another ten-item scale of traditional attitudes toward education developed by Kerlinger (1958) has been used in this study. These measures do not constitute scales in the Guttman sense, but rather are constituted of items which appeared in factor-analytic studies, and which were characterized by the terms that identify the scales.

Special education.--As defined by Kirk (1962, p. 29), this term characterizes educational practices "that are unique, uncommon, of unusual quality, and in particular are in addition to the organization and instructional procedures used with the majority of children." Jordan (1964, p. 1) has elucidated: "The basic aims of special education is to prevent a disability from becoming a handicap."

Demographic variables.--Certain statistical data frequently employed in sociological studies will be used in the present investigation. These variables are age, education, income, rental, occupation, number of siblings, occupational and residential mobility, and whether the

respondent spent his youth in a rural or urban setting. Information on these variables were secured through responses of subjects on questionnaire items.

Institutional satisfaction.--This term is used to describe a set of variables on which the respondents were asked to indicate how well they felt that various kinds of local institutions were doing their job in the community. Specifically, the institutions were schools, business, labor, government, health services, and churches.

Interest group.--Any group that, on the basis of one or more shared attitudes, makes certain claims upon other groups in the society to engage in particular forms of behavior. Associational interest groups work as collectivities to exert influence (e.g., Almond and Coleman, 1960).

Occupational personalism.--This term is operationally defined by questionnaire items designed to ascertain: first, about what per cent of the time people work with others with whom they feel personally involved; second, how important it is to work with people with whom one is personally involved. A personalistic orientation to life is sometimes considered as a distinguishing characteristic of traditional social patterns (e.g., Loomis, 1960).

Relational diffusion.--This term is operationally defined by a questionnaire item designed to determine the extent to which personal relations on the job diffuse into a person's non-job social milieu. A personalistic diffusion between the social milieu and occupational milieu is

sometimes considered as a distinguishing characteristic of traditional social patterns (e.g., Loomis, 1960).

Religiosity.--A term signifying orientation to religion. Operationally, it refers to three aspects: first, religious preference; second, the importance of religion; third, the extent to which the rules and regulations of the religion are followed.

Research Hypotheses

The research hypotheses[1] presented hereunder are concerned with attitudes and values toward emotionally disturbed and physically disabled persons. Although it was recognized that additional questions and hypotheses would emerge in the course of investigation, the major hypotheses of this research were framed as follows:

Hypotheses Related to Contact Frequency, Intensity and Attitude Scores

1. The more frequent the contact with emotionally disturbed persons, the higher will be the scores on the intensity statements of the attitude-toward-emotionally-disturbed-persons (EDP) scale, regardless of whether attitude content is favorable or unfavorable.

2. Mothers of emotionally disturbed children will have greater intensity of attitude toward emotionally disturbed persons than will the mothers of physically handicapped or non-handicapped (i.e., normal) children.

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[1]For all hypotheses in which tests of significance are involved, the statement of the hypothesis is in the research form rather than the null form for purposes of clarity.

3. The more frequent the contact with physically handicapped persons, the higher will be the scores on the intensity statements of the handicapped persons (HP) scale, regardless of whether attitude content is favorable or unfavorable.

4. Mothers of physically handicapped children will have greater intensity of attitude toward physically handicapped persons than will the mothers of emotionally disturbed or non-handicapped (i.e., normal) children.

5. The more frequent the contact with education, the higher will be the scores on the intensity statements of the Education scale, regardless of whether attitude is traditional or progressive.

6. Mothers of emotionally disturbed and physically handicapped children will have greater intensity of attitude toward education (traditional and progressive) than will the mothers of non-handicapped (i.e., normal) children.

7. High frequency of contact with emotionally disturbed persons will lead to favorable attitudes if high frequency is concurrent with (a) alternative rewarding opportunities, (b) enjoyment of contact, and (c) ease of avoidance of contact.

8. Mothers of emotionally disturbed children will have more positive attitudes toward emotionally disturbed persons than will the mothers of physically handicapped or non-handicapped (i.e., normal) children.

9. High frequency of contact with physically handicapped persons will lead to favorable attitudes if high frequency is concurrent with (a) alternative rewarding opportunities, (b) enjoyment of contact, and (c) ease of avoidance of contact.

10. Mothers of physically handicapped children will have more positive attitudes toward physically handicapped persons than will the mothers of emotionally disturbed or non-handicapped (i.e., normal) children.

11. High frequency of contact with education will lead to favorable attitudes if high frequency is concurrent with (a) alternative rewarding opportunities, (b) enjoyment of contact, and (c) ease of avoidance of contact.

Hypotheses Related to Attitude-value Interactions

12. Mothers who score high in need for power and control over others will tend to score low in acceptance of emotionally disturbed and physically handicapped persons.

13. Mothers who score high in need for power and control over others will tend to score low in progressive attitudes toward education and high in traditional attitudes toward education.

14. Mothers who score high in need for recognition and achievement will tend to score low in acceptance of emotionally disturbed and physically handicapped persons.

15. Mothers who score high in need for recognition and achievement will tend to score low in progressive

attitudes toward education and high in traditional attitudes toward education.

16. Mothers of emotionally disturbed and physically handicapped children will score lower on the values of Leadership and Recognition than will the mothers of non-handicapped (i.e., normal) children.

17. Mothers who score high in need to help others, to be generous, will tend to score high in acceptance of emotionally disturbed and physically handicapped persons.

18. Mothers of emotionally disturbed and physically handicapped children will score higher on the value of Benevolence than will the mothers of non-handicapped (i.e., normal) children.

19. Mothers who score high in need to help others, to be generous, will tend to score high in progressive attitudes toward education and low in traditional attitudes toward education.

20. Mothers of emotionally disturbed and physically handicapped children will score higher on the value of Support than will the mothers of non-handicapped (i.e., normal) children.

21. Mothers of emotionally disturbed and physically handicapped children will score lower on the value of Conformity than will the mothers of non-handicapped (i.e., normal) children.

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Hypotheses Related to Change Orientation and Attitude Scores

22. Mothers who score high on change orientation will also score high on positive attitudes toward emotionally disturbed and physically handicapped persons.

23. Mothers who score high on change orientation will also score high on progressive attitudes toward education and low on traditional attitudes toward education.

24. Mothers of emotionally disturbed and physically handicapped children will have higher mean scores than will mothers of non-handicapped (i.e., normal) children on the following change orientation measures: (a) health practices, (b) child rearing practices, (c) birth control practices, (d) automation, and (e) self change.

Hypotheses Related to General Differences Between Mothers of Distrubed, Handicapped and Non-Handicapped Children

25. Mothers of non-handicapped (i.e., normal) children will tend to have more favorable attitudes toward physically handicapped than toward emotionally disturbed persons.

26. Mothers of non-handicapped (i.e., normal) children will have less favorable attitudes toward physically handicapped persons than will the mothers of physically handicapped children.

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CHAPTER II

REVIEW OF RELATED RESEARCH AND THEORY

Although there have been many studies exploring the characteristics of parent-child relationships in mental illness and physical disability, most of them have focused upon isolated aspects such as relationship of selected pathogenic parental traits to psychopathological or undesirable personality development of the child (Barker, 1948; Bolles, Metzger, and Pitts, 1941; Field, 1940; Kasanin, Knight and Sage, 1934: Pintner, Eisenson, and Stanton, 1941; Putnam, 1948; Radke, 1946; Tietze, 1949; Wood, 1946).[1] In addition to the restricted nature of the variables investigated, these early studies have suffered from serious methodological defects. The methodological problems will be discussed at some length in a later section of this chapter. During the last two decades, still greater attention was given to research in the area of attitudes and values as related to emotional disturbance and physical handicap. In recent years also, the impact of the social environment on the development, stability and changes in attitudes toward

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[1]For an extensive review of parent-child interactions, the reader is referred to Spiegel and Bell (1959).

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handicapped persons have been studied rather extensively by psychologists, sociologists, and rehabilitation experts.

That attitudes and values toward various social objects are instilled early in life needs no documentation. Interest has shifted from the study of the chronological development of attitudes and values to a consideration of certain crucial factors in the individual's life affecting that development. In general, social contact, exposure to education, and interpersonal values have been found to be such crucial factors responsible for producing changes in attitudes.

The related research to be presented in this section will be concerned primarily with reviewing those studies that bear upon (a) attitudes toward emotionally disturbed persons, (b) attitudes toward physically disabled persons, and (c) the relationships of values, personal contact, and intensity to attitudes.

Attitudes Toward Emotionally Disturbed Persons

Parental Attitudes

The significance of parental attitudes in the acceptance of emotionally disturbed persons has been suggested by many researchers and practitioners in the field of mental health and child development. The findings of early psychological researches have indicated that parental attitudes produce enduring impressions on the personality of

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the child. however, as mentioned earlier, most previous researchers were interested in determining the influence of specific pathogenic characteristics in the parents on later behavior symptoms in children.

Review of the literature reveals the preference of researchers in studying parents of schizophrenic patients. As early as 1934, Kasanin, Knight, and Sage observed that sixty per cent of the parents of a group of forty-five schizophrenic parents showed parental overprotection and rejection. In a similar study of twenty-five mothers of schizophrenic patients, Tietze (1949) found the mothers to be insecure, superficial, rigid, and domineering. With a view to establishing patterns of parent-child relationships in schizophrenia, Riechard and Tillman (1950) analyzed sixty-six cases from the literature plus thirteen of their own. Three categories of schizophrenogenic parents were identified: (a) overtly rejecting type mother, (b) covertly rejecting type mother, and (c) schizophrenogenic father exhibiting domineering, sadistic attitudes toward the child. A factor-analytic study of attitudes of mothers of schizophrenic patients by Shepherd and Guthrie (1959) indicated the probability of several schizophrenogenic patterns of motherhood. The author was able to delineate five factors: (a) detached authoritarianism, (b) inadequacy and inconsistency, (c) pervasive control, (d) sophisticated denial of inadequate mothering, and (e) annoyance and rejection. The data also

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indicated some relationships between maternal attitudes and self-concept and social-perception of the schizophrenic sons.

From the point of view of research design, the above mentioned studies were inadequate in that none of them used a control group. A controlled study of personality relationships in mothers of twenty-five male, hospitalized schizophrenic patients was conducted by Prout and White (1951). Although very little difference was found between the experimental and control groups, a more frankly critical attitude toward their children was expressed by mothers of the normal control group. Also, mothers of normal children demonstrated a more gregarious and outgoing attitude toward life. Interestingly enough, a similar investigation by Mark (1953) comparing mothers of normal children with those of hospitalized schizophrenics found contradictory results. The mothers of schizophrenic children manifested restrictive attitudes in controlling their sons, and exhibited both excessive devotion and cool detachment. Zuckerman, Oltean, and Monashkin (1958) used the Parental Attitude Research Instrument (PARI), a currently popular research instrument developed by Shaefer and Bell (1958), to retest the familiar hypothesis that mothers of schizophrenics exhibit more controlling and rejecting attitudes in comparison to mothers of normal children. In spite of the fact that significant interactions were observed between two groups and levels of education, the study failed to

substantiate the main hypothesis. The results of this study are very similar to the one mentioned earlier by Prout and White (1951).

From a methodological standpoint, studies comparing different types of mental disorders including a control group of parents of normal children should enable more reliable and valid conclusions. In this connection, it is worthwhile to mention two studies reporting results in the opposite direction. McKeown (1950) compared parental behaviors of schizophrenic, neurotic, and normal children, and found statistically significant differences among the three groups. The parents of schizophrenics having the same sex showed demanding antagonistic behavior more frequently. The same type of behavior pattern was exhibited by both parents of neurotic children. But in the case of the parents of normal children, encouraging behavior was predominant. Klebanoff (1959) made a comparative study of parental attitudes of mothers of schizophrenic, brain-injured and retarded, and normal children with the help of Parental Attitude Research Instrument (PARI). Interestingly, mothers of schizophrenic children showed less rather than more pathological attitudes in contrast to the mothers of brain-damaged and retarded children. The author, quite legitimately, expresses grave doubts regarding the commonly accepted hypothesis that schizophrenia is caused by pathogenic parental attitudes. However, it must be pointed out that the samples

in this research were woefully small-fifteen mothers each in the two experimental groups and twenty-six mothers in the normal control group.

One of the few studies which used MMPI scales in an attempt to establish definite relationships between parental pathology and the kinds of behavior problems exhibited by their children met with failure (Liverant, 1959). Nevertheless, significant MMPI differences between parents of disturbed (schizophrenic, neurotic, acting-out, and physically complaining) and non-disturbed children were observed and these supported the general clinical observation.

The pervasive influence of maternal attitudes has been shown in studies investigating genesis of autistic behavior and mental retardation. Despert's (1951) analysis of case material led him to conclude that mothers of autistic children were compulsive, perfectionistic, narcissistic, immature, frigid, emotionally detached, and frightened by bodily contact. Certain types of mental retardation have been considered by one researcher to be a by-product of neurotic maternal attitudes (Goshen, 1963).

Parental attitudes have also been shown to be associated with neurotic behavior in children. Field (1940), who studied maternal attitudes of twenty-five children with conduct disorders and neurotic traits, found that inadequate parental role, rejecting attitude toward children, poor marital adjustment, and infantile neurotic traits characterized these

mothers. Similar results were obtained by Bolles, Metzger, and Pitts (1941) in a study where one hundred forty-two neurotic patients were compared with a normal control group. Probably, one of the better studies in this area is the one carried out by Shoben (1949) who developed a questionnaire to measure dominant, possessive, and ignoring attitudes of parents in relation to child adjustment. When the questionnaire was administered to the mothers of emotionally disturbed children, whose children had been identified as clinical cases, juvenile offenders, or considered by mothers as being problem and normal children, a significant difference was found in regard to the above-mentioned parental attitudes.

There have been numerous studies that have shown some sort of relationship between pathological parental attitudes and school phobia (Estes, Hylett, and Johnson, 1956; Johnson, et al., 1941; Van Houten, 1948). Although such studies indicate the existence of neurotic parental traits only vaguely in cases of school phobia, a "careful study might define more sharply the unique features of the 'phobogenic' mothers" (Kessler, 1966, p. 239).

There appears to be fewer studies of parental attitudes in the area of juvenile delinquency and acting-out disorders. At the Michigan Child Guidance Institute, a larger study involving five hundred cases was conducted with a view to establishing relationships between behavior

patterns in the child and parental behaviors. The correlational analysis of the data revealed three patterns: (a) parental rejection correlated with the child's unsocialized aggression characterized by violence, cruelty, malicious mischief, and open defiance of authority, (b) parental negligence and exposure to delinquency patterns correlated with socialized delinquent behavior in which the child was on good terms with a delinquent gang but opposed the norms of adult society, and (c) parental overcontrol correlated with overinhibited behavior in the child marked by shyness, apathy, and seclusiveness. As expected, these correlational patterns again, were not completely supported in another similar study where mothers of twenty-one adolescent socialized delinquents displayed excessive control and very inadequate understanding of child's feelings (Cass, 1952). Using the Parental Attitude Research Instrument (PARI), Madoff (1959) attempted to measure maternal attitudes of the mothers of institutionalized delinquents and healthy adolescents. More pathogenic attitudes and authoritarian demands were expressed by mothers of delinquents. Winder and Rau (1962) found that parental attitudes of ambivalence, punitiveness, restrictiveness, and low maternal self-esteem correlated with peer evaluations of preadolescent boys judged to be socially deviant.

Of continuing interest to many researchers is the study of the influence of parental attitudes on children's

adjustment and behavior, in general. As is characteristic of the literature, no consistent results were obtained by the investigators on this topic. This is best illustrated in two early studies reported the same year. Lewis (1945), for example, found that more desirable scores were obtained by the children on BPC Personal Inventory Scores whose parents were rated as showing a "superior" attitude toward the child and home. On the other hand, Read's (1945) conclusion was that no relationship exists between child behavior and parents' views in respect of desirable child behavior. However, child behavior was found to be positively related to liberalism in views on parental control. Other studies, although differing in methodology, selection of samples, and use of research instruments, arrived at similar results regarding parental attitudes and child adjustment (Dingman, Eyman, and Windle, 1963; Peterson, Becker, and Hellmer, 1959; Stern, 1964; Tamkin, 1964; Tolor and Rafferty, 1963) with the exception of one important study using PARI where the author concluded that there was no invariable relation between certain parental attitudes toward child rearing and parental acceptance of the child (Medinnus, 1963).

A recent research explored some social-psychological variables influencing parental acceptance of residential treatment for their emotionally disturbed children (Schuhman, Coe, and Rae-Grant, 1964). Mothers who accepted placement differed significantly from mothers rejecting

institutional placement. The latter showed feeling of alienation and guilt about the child, and tended to be rejecting of the child. On the dimension of authoritarianism interpreted as "an inability to take on child's role," there was a significant difference between parents of emotionally disturbed children and parents of normal children (Adams, 1965). However, when authoritarianism was taken to mean fascism-conservatism, no difference was found between the two groups of parents.

The studies reviewed thus far give the impression that there is some kind of basic, perhaps qualitative, difference between the parental attitudes of normal and emotionally disturbed children. But, as Law (1954) has pointed out, mothers of normal children are not completely free of tensions nor do they possess infinite love and patience. In fact, the difference between the two groups of mothers may be one of degree, rather than kind.

It may be noted that although the literature abounds with research on maternal attitudes, this reviewer encountered only one study which surveyed common parental attitudes and reactions toward the "emotionally disturbed child" in Salt Lake City (Cole, Shaw, Steneck, and Taboroff, 1957). However, the researcher had a rather general purpose of determining the assimilation of recent psychiatric concepts in child-rearing practices. He found that the parents exhibited a fairly good knowledge of symptoms and cause of

emotional disturbance; but this was not correlated with their desire to seek professional help.

General Studies

Insofar as the public's attitudes toward emotionally disturbed persons are concerned, the entire program of comprehensive mental health planning and community psychiatry rests upon the positive attitudes of the community. The following comment by Davis about the necessity of assessing peoples' attitudes and values still hold true in the present decade:

> Since mental health is obviously connected with the social environment, to promote such health is to treat not only particular minds but also the customs and institutions in which the minds function (Davis, 1938, p. 55).

Chamberlain and DeSchweinitz (1955) have suggested several factors in community acceptance of the mental health problems, such as, good public relations through news media, avoidance of technical terminology, and helpful and understanding person-to-person contacts. It would be no exaggeration to state that "by now mental health has become a social goal and cultural value" (Ginsburg, 1955, p. 3).

Moreover, there have been several theoretical and empirical attempts to study attitudes of the public, in general, and various categories of professionals, in particular. The spurt of studies in recent years emphasizing social-psychological aspects of the public attitude

toward emotional disturbance is particularly noteworthy. A closer look at the network of influences operating on those associated with the emotionally disturbed provided new insight into the whole problem of change in attitudes and beliefs, and pointed to new directions for further research in the area.

Some of the most significant recent research have been concerned with the measurement of attitudes and opinions of the workers in the field of mental health. A series of statistically sophisticated studies have been published isolating factors responsible for differential attitudes of professionals and non-technical personnel in mental hospitals toward psychiatric patients (Cohen and Struening, 1962, 1963; Struening and Cohen, 1963). A specially constructed attitude scale, Opinions about Mental Illness (OMI), was used which yielded five major factors reflecting: (a) stress on patients' difference and inferiority to normals, (b) desire to place strong social restrictions on them both during and after socialization, (c) moral sense of obligation to help unfortunates, (d) more professional attitudes toward their treatability, and (e) attitudes toward etiology of psychiatric illness. Apparently, the first two factors indicated negative attitudes and the next two, positive attitudes toward mental patients. In addition, these researchers have been able to determine occupational profiles and profile clusters for nineteen

occupational groups, and have investigated factorial invariance and other psychometric characteristics. Thus, their conclusion was that attitudes toward mental illness vary with the respondents' occupations. Furthermore, attitudinal responses were influenced not only by occupation, but by amount of education as well. These studies, therefore, strongly suggest that different attitudinal patterns can be traced even in those who are most intimately connected with mental patients as voluntary workers.

A similar attempt at exposing the factors involved in the organization of physicians' attitude towards the emotionally disturbed patients was made by Taylor (1965). The five factors discovered were: (a) self-confidence in treating the emotionally disturbed patients, (b) general dogmatism, and an authoritarian-repressive attitude, (c) perceived status of psychology and psychiatrists, (d) acceptance of the counseling role in general practice, and (e) an unidentified factor with main loadings on questions about psychiatric institutions. However, Taylor could not establish any direct relationship between the personality variables and negative feelings about the emotionally disturbed patients. But in a most recent study by Wright and Klein (1966), there are discernible indications that formal education and training and experience with mentally ill persons are conducive to favorable attitudes toward them.

An interesting comparison of a random sample of the general public and psychiatrists concerning their conceptions

of mental illness was made by Manis, Hunt, Brawer, and Krecher (1965). There was no significant difference between the views of the public and psychiatrists regarding the acceptance of troublesome behavior as an indication of mental illness compared to non-troublesome behavior. This study might suggest that the public has become more sophisticated in their knowledge of the symptomatology of mental diseases, and are not apt to consider only troublesome behaviors as signs of mental disorder. On the other hand, a random sample of two hundred forty-seven white housewives revealed ignorance of contemporary ideas about mental illness (Stewart, 1959). The author, therefore, pointed to the need for education of the community by appropriate agencies.

An ambitious project at the University of Michigan Survey Research Center undertook to study a representative sample of two thousand four hundred and sixty Americans over twenty-one and living at home with the help of extensive interviews regarding various facets of the mental health problems (Gurin, Veroff, and Feld, 1960). The findings, however, quite expectedly, do not provide any clear-cut picture of the situation. In his recent work, Nunnally (1961) has discovered a new dimension of "inconsistency" in the public attitude. People seem to either agree with inconsistent opinion statements or disagree with apparently consistent statements.

Apparently taking cues from the oft-quoted study by Hollingshead and Redlich (1958) which attempted to correlate social class with the incidence, development, diagnosis and treatment of mental illness, Stewart (1959) intended to establish relationships between opinions about mental illness and positions in the social class hierarchy among white housewives. The results were inconclusive in that the pattern of responses failed to show any definite relationship. Another relevant research with a restricted objective of determining how rural residents differ from urban dwellers in their attitude toward mental illness found no basic difference between the two groups insofar as the utilization of mass communication media was concerned (Crawford, Rollins, and Sutherland, 1961). The dissemination of mental health information was able to improve their knowledge of mental problems.

New insights into our understanding of the public image of mental illness and mental health professionals have come from a rather comprehensive cross-cultural research consisting of two independent but complementary studies on samples drawn from the continental United States, Hawaii, and England (Askenasy, 1963; Zavollani and Askenasy, 1963). The first study investigated the views of mental health personnel whereas the second one dealt with attitudes of the general public. Socio-cultural factors were found to be significantly related to attitudes

toward mental illnesses, notwithstanding the training and background of the respondents. Clusters of acceptance and rejections of mentally ill persons were also found in each of the three countries studied by these researchers. For example, degree of favorableness of the perception of mental patients was correlated with the degree of occupational trust.

A somewhat similar, but less sophisticated, cross-cultural survey of popular reactions to mental illness in the United States, England, and France was made earlier by the Commission de la Ligue Française d'Hygiene Mentale (1959). The results of this survey provided clear indications of stigma attached to mental patients which carries over even after their recovery.

In summary, there does not appear to be general agreement as to the nature of popular attitudes toward mental patients. While a number of researchers suggest the prevalance of more or less positive attitude toward emotional disturbance and mental health personnel (e.g., Lemkau and Corcetti, 1962; Nunnally and Kittross, 1958), there are studies which have obtained contradictory results (e.g., Cumming and Cumming, 1957; Joint Commission, 1961; Star, 1956). Perhaps, we might agree with Erikson's observations:

> It appears that on the surface the public has developed reasonably tolerant attitudes toward the mentally ill and even a hesitant respect for the practice of psychiatry. People understand

> the need for increased psychiatric facilities, appreciate the enormity of the mental health problem, and agree that mental illness is a condition requiring specialized treatment and competently trained help. Yet underneath the pleasant surface of these enlightened principles, people have little idea how to recognize the concrete problems that these principles encompass (Erikson, 1957, p. 270).

Thus the only irrefragable conclusion in the present confusing situation that can be made at this time is that methodologically superior research under a comprehensive theoretical framework is desperately needed.

Attitudes Toward Physically Disabled Persons

Parental Attitudes

Research reports on the physically handicapped have shown assuredly the pervasive influence of parental attitudes. Consistent with many theoretical approaches to child psychopathology, the research findings in this field suggest strongly that parental attitudes of hostility, guilt and self-recrimination produce a feeling of difference and inadequacy in the physically handicapped child.

Most systematic studies, although less comprehensive in scope, have been conducted in the area of visual disability. Sommers (1944) who studied the influence of parental attitudes and social environment on the personality development of the adolescent blind stated, ". . . the majority of mothers studied experienced frustration or

feelings of conflict because of having given birth to a child." The attitudinal reactions of the mothers of blind children fell into five categories: (a) genuine acceptance, (b) an attitude of denial that either parent or child is affected by the handicap, (c) overprotectiveness and excessive pity, (d) disguised rejection, and (e) overt rejection. Significant relationship was observed between parental attitudes and the adjustment of visually handicapped and sighted individuals by Verillo (1958). Parents' attitudes of acceptance and rejection had a marked influence on their social and emotional adjustment. Additionally, Verillo (1958) also found that persons of high socio-economic status exhibited attitudes of overprotection, dominance, anti-minority, and authoritarianism. In a similar vein, Underberg (1958), and Underberg, et al. (1961) noted that there was less understanding in the parents of partially-seeing children than what was usually the case with the parents of normally seeing children. The research concluded that this was due to the lack of proper understanding of the emotional factors of partially-seeing children on the part of their parents. Much the same results were obtained earlier in another study probing the psychological problems of the congenitally blind (Cole and Taboroff, 1956).

An illuminating study in many ways was carried out by Cook (1963) regarding mothers' attitudes of children with

one of the following handicaps: blindness, deafness, mongolism, cerebral palsy, and organicity. Their attitudes differed significantly depending upon the type of handicap of their children. The mothers of deaf children and children having organicity were overindulgent, whereas the mothers of mongloid and cerebral palsy children, were punitive. Toward their blind children, the mothers were found to be overprotective. In general, they expressed the attitude of rejection for the mildly handicapped and the attitude of overprotection for the severely handicapped.

In contrast to the studies reviewed above where the research problem was the determination of existing parental attitudes toward the handicapped, Barclay and Vaught (1964) were interested in maternal estimates of future achievement in cerebral palsied children. The findings indicated that children having low intellectual potential as rated by experts were typically overestimated by the mothers regardless of the child's age or degree of physical handicap.

More convincing results have been obtained in regard to the relationship of parental attitudes to speech defects. Wood (1946), in his investigation of parents of children suffering from stuttering or other articulatory defects, found that the mothers were neurotic, submissive, and self-conscious. The fathers of these children, however, did not differ from the fathers of normal children. Differences in

attitudes and personality characteristics of mothers and fathers of stuttering children were studied by Holliday (1958) in a matched-control experiment. The experimental-group fathers were matched with the control-group fathers on the variables of age, education and occupation, and the experimental-group mothers were matched with the control-group mothers on the variables of age and education. The data showed that the fathers of stutters were more compulsive and less exhibitionistic or outgoing than the fathers of normal children. The mothers of stuttering children also tended to be more abasing in their attitudes toward themselves than the mothers of children who do not stutter. Thus, Wood's (1946) conclusion that mothers and fathers of stutters have similar personality characteristics was not corroborated by Holliday (1958).

The influence of parental attitudes on the behavioral manifestations of the handicapped child has been indicated by many other investigators in reference to facial deformity (MacGregor, et al. 1953), acquired physical deformities (Watson and Johnson, 1958), cerebral palsy (Haring, 1959), and mixed organic handicaps (Carter and Chess, 1951). In some manner, these physical disabilities "symbolize to the parents a transmission of 'poor biologic inheritence'," according to Rome and Robinson (1959, p. 1267).

The above mentioned studies including several others (Browne, et al. 1960; Denhoff and Holden, 1954; Fliegler

and Hebeler, 1960; Gurney, 1958; Reeves, 1962; Shere, 1956; Worchel and Worchel, 1961; Wortis and Cooper, 1957) have demonstrated in a general manner that parental attitudes are responsible, to a great extent, for the successful adjustment of the handicapped children and their acceptance by the community at large. Parental acceptance appears to enhance the self-concept of the disabled which, in turn, motivates them to make efforts for successful adjustment in the social life and in the world of work.

The interpretations that have been advanced by various researchers of the data on the relationship of parental attitudes to the manifest psychological problems of disabled children clearly smack of a general bias in favor of psychoanalytic approach. That is, less emphasis has been placed on factors associated with ego-functioning at conscious and reality levels than on psychopathological processes operating in the disabled and their parents at the level of unconscious fantasy and feeling. In their review of psychiatric conditions associated with metabolic, endocrine, and nutritional disorders, Rome and Robinson have surmised:

> In the presence of gross genital anomalies (intersex, cryptorchism, infantilism, pubertas praecox), the parents' response is in unconscious accord with the success or failure with which they have handled their own psychosexual problem and with the repurcussions and consequences of this in their marital relationship. The threat to mature psychogenitality is so realistically witnessed in these syndromes that parents rarely are able to accept with equanimity a deficiency of this sort in their progeny (Rome and Robinson, 1959, p. 1268).

Whatever theoretical orientation one might adopt for explaining the data, review of the literature points to the fact that parental attitudes toward handicapped children tend to be extreme with a preponderance of overprotection as opposed to overt rejection (Wright, 1960). Most frequently observed attitudinal patterns are rejection, oversolicitude, inconsistency, and inflated estimation of accomplishments beyond the child's abilities (Barker and Wright, 1954). Thus, there appears to be general concord among researchers that the handicap per se plays a less decisive role on emotional adjustment than the personalities and attitudes of persons to which the disabled child is exposed continually.

However, we must not underestimate the role of other psychological variables in the personality development of the disabled which might possibly prove to be far more consequential than attitudes of the parents. As Kessler puts it:

> But it would be a mistake to conclude that the personality of the handicapped is determined solely by parental attitudes. A handicapped child, like any other child, observes himself and compares himself with other children (Kessler, 1966, p. 342).

General Studies

For the most part, empirical research in the field of physical handicap have been confined to the study of specific physical disability in a specific setting in the

United States. This has posited serious restrictions on the generalizability of the findings. However, the importance of such studies cannot be attenuated.

The earliest psychological studies of physical handicap reflected the view that each physical disability gave rise to specific mental and personality characteristics. Such a psychobiological approach is best illustrated in the classic work, Psychology of the Physically Handicapped by Pintner, Eisenson, and Stanton (1941). In recent studies, however, greater emphasis has been placed on all those factors which might function as intervening variables between physical disability and its psychological manifestations. Wright (1960) who has reviewed the entire area of attitudes toward physical handicap in her standard reference work, Physical Disability: A Psychological Approach states that "somatic abnormality as a physical fact is not linked in a direct or simple way to psychological behavior" (p. 373). The author further points out that "there are far fewer psychological experiences peculiar to persons with physical disabilities than an offhand guess might indicate" (p. 3).

In the literature on physical handicap, one frequently encounters the term "somatopsychology" which has been defined by Barker and Wright as referring to:

> . . . those features of physique that affect the psychological situation of a person via his body as a tool for behavior and as an object with social significance to himself and others (Barker and Wright, 1954, p. 419).

Thus, in order to conceptualize the psychological aspects of physical disability, differing experiences resulting from differing disability should be emphasized.

Barker and his associates (1953), in an early study, attempted a content analysis of attitudes expressed in religion, fiction and humor (pp. 74-76). Considerable variation in attitude was revealed by the religious and literary analyses. Generally speaking, jokes relating to the physically handicapped were more deprecating than jokes about salesmen and farmers, for example. Similar tendency in the people to mask their negative attitudes toward disability with the help of jokes were observed by Barker and Wright (1955).

Of all the physical disabilities, visual impairment seems to have been most systematically investigated. A series of studies regarding attitudes toward blindness have been reported by Whiteman and Lukoff (1962, 1964, 1965). They have been concerned particularly with the exploration of attitudinal components, and their relationships with different personal values and differential sensitivity to methods of attitude change (Whiteman and Lukoff, 1962). With respect to attitude structure, the authors found that for a specific component, correlations are higher between disability groups. They also made attempts to trace the self-concept of the blind person and his own attitudes to the sighted.

In their factorial study of sighted people's attitudes toward blindness, Whiteman and Lukoff (1964) were able to identify five factors: (a) the degree to which the respondents have a negative view of the emotional life and general adequacy of blind people, (b) the degree to which the respondents see blind people as socially competent, (c) the degree to which blindness is perceived as potentially threatening or uniquely frustrating, (d) tendencies to be protective of blind people, and (e) readiness for personal interaction with blind people.

The area of employer attitude toward the blind was reviewed by Clunk (1947). He discovered that many employers hold negative attitudes in complete disregard to the true employment potential of the blind.

The socio-economic level of the respondents was also found to have a relationship with verbalized attitudes toward the physically handicapped. In a paper presented to National Psychological Research Council on Blindness, Raskin (1956) set forth a cogent analysis of the attitudes of sighted people towards blindness suggesting multiple determinants of such attitudes. The possible operation of psychodynamic, situational, socio-cultural, and historical determinants were hypothesized by the author.

A search for deeper motivations underlying attitudes on the part of the seeing toward blindness was made by Schauer (1951) within the purview of psychoanalytic theory

relating to intrapsychic or fantasy aspects of behavior. Some of the overt attitudes toward the blind as suggested by the author are: child like curiosity without restraint, general fear to look at strange sights, and apprehension of loss of one's own identity for having a feeling of oneness with the blind person.

Threat to the bodily integrity and loss of identity were also found to be present in peer group attitudes toward the amputee child resulting in greater rejection of the amputee by his classmates (Centers and Centers, 1963).

An investigation of uniformity and cultural variability of preference rankings of pictures of different kinds of physical deviation revealed:

> . . . remarkable uniformity in the hierarchy of preference which the children exhibited for pictured children with or without various visible physical handicaps (Richardson, et al., 1961, p. 246).

It may be noted that the samples of the study included both disabled and nondisabled of various ethnic and social class groupings. Some sex variations were also found, in that the girls tended to deprecate children with more "social" impairments than the boys who seemed to have greater concern for "functional" impairments.

An elaboration of this investigation by Goodman, et al. (1963) concerned itself with the question of acquisition of the value pattern noted in the above mentioned

study (Richardson, et al., 1961). The children and adults selected for the study came from subcultures with different value organizations about visible impairments. These groups were Jewish and Italian (because of hypothesized variant values for facial characteristics and body weight), and retarded and emotionally disturbed (because of hypothesized inadequate or distorted internalization of social norms). The data indicated that adults showed the same preference pattern as the dominant children's pattern, whereas the Jewish children gave higher ranking to both facially disfigured and obese than others. In addition, both retarded and disturbed children exhibited deviant patterns. The authors suggest that differential response patterns are acquired largely in the absence of contact with disabled persons, and have an implicit character communicated from parents to children without explicit rules or awareness. The cultural values with respect to disability, thus, appear to be related to cultural uniformity.

A number of social-psychological variables were found to be at the root of attitudes of non-handicapped persons toward the orthopedically handicapped (Nash, 1962). The subjects who manifested favorable attitudes most, as a group, were younger, currently married, and of higher educational level.

Using some standard psychological tests (such as ATDP, MMPI, and others), Siller (1964) found a general confirmation of the view that the acceptance of the disabled is related to a positive self-image and stable object relationships on the part of non-handicapped persons.

Preferences for different types of physical disability have been investigated by many researchers. Insofar as preference for teaching particular groups over others is concerned, it was shown that the gifted were most preferred, mentally retarded and emotionally disturbed children were least preferred, whereas physically handicapped children were placed in the middle (Badt, 1957; Dickstein and Dripps, 1958; Kvaraceus, 1956; Murphy, 1960). But, generally, there was a tendency to prefer to work with those best known to the subjects. Force (1956), and Haring, et al. (1958) observed that cerebral palsied children are most difficult to interact with. Force has hypothesized an acceptance-rejection continuum based on "visibility," that is, obviousness of the impairment.

When attitudes of different socio-economic groups toward blindness were compared with other physical disabilities, blindness was overwhelmingly selected as the least preferred disability (Gowman, 1957). Other physical disabilities in order of perceived seriousness were leg amputation, deafness, arm amputation, and severe facial burns.

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Unlike the fortuitous theoretical considerations evident in most previous studies on attitudes toward the physically disabled, recently the researchers have attempted to explore such attitudes in terms of basic psychological concepts of "prejudice" and "ethocentrism." It may be assumed that physically handicapped persons represent an outgroup for the non-handicapped. Hence, the former would be subjected to the same intolerant behavior as meted out to other ethnic groups. In fact, Barker had already suggested earlier:

> The physically disabled person is in a position not unlike that of the Negro, the Jew, and other under-priviledged racial and religious minorities; he is a member of an under-priviledged minority (Barker, 1948, p. 31).

Barker and his co-workers (1953) further point out there exists an "irrational prejudice" in the minds of the public regarding the employability and legal status of the disabled which has a striking similarity to the social rejection and ostracism experienced by members of ethnic minority groups.

Other empirical studies also support the general contention that common stereotypes place the physically handicapped in an inferior social role like various ethnic outgroups (Handel, 1960; Himes, 1960). Cowen and his associates (1958) also reported significant relationships between negative attitudes toward blindness, and anti-Negro, anti-minority, and pro-authoritarian attitudes. Wright's (1960) recent summary of the psychological aspects and

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effects points out that the physically handicapped are comparable to other minority groups in many ways.

Sidney Jordan (1963) proposed that the label of "disadvantaged group" can justifiably be applied to the physically handicapped in order to conceptualize this ingroup-outgroup relations.

Similar questions were raised by Rusalem (1950) who underscored the need for highly organized social-psychological research into the dynamics of extremely complex attitudes toward the blind.

Both from theoretical and methodological points of view, an excellent research on ethnocentrism and attitudes toward the disabled has been reported recently by Chesler (1965). The results of the study supported the earlier findings that:

> . . . for some purposes the physically disabled can be conceptualized as a minority group subject to many of the same attitudinal and behavioral predispositions as are ethnic minorities (Chesler, 1965, p. 881).

Another important finding was:

> . . . ethnocentrism, or prejudice, is a general phenomenon expressed towards a wide variety of outgroups and is not narrowly focused on one or another particular minority group (Chesler, 1965, p. 881).

Assuming that the physically handicapped persons are perceived as a minority group and treated as such, what could be done to assuage this prejudice. Generally, the research has suggested the beneficial role of social contact and information in this regard.

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Roeber (1959) indicated that both social contact and increased factual information lead to increased acceptance and tolerance of disabled persons. In another study, it was shown that when the teachers had regular contact with the disabled children, workshop attempts to modify the attitudes of teachers were more effective (Haring, et al., 1958).

> From the reaction of those teachers who had few opportunities for actual experiences with exceptional children, it appears that the threat of having to modify behavior is more anxiety-producing than the real process of change itself (Haring et al., 1958, p. 130).

Rehabilitation workers and other hospital employees having disabled relatives or friends manifest greater acceptance of the disabled than those without personal ties to disabled persons (Bell, 1962). Genskow and Maglione (1965) investigated the relationship of familiarity and dogmatism to student attitudes toward the disabled. More favorable attitudes toward handicapped persons were shown by those who were more familiar with disabled students. However, correlations between dogmatism and attitudes were found to be non-significant.

Somewhat unexpectedly, Cowen and others (1958) found that contact or lack of contact with the blind does not relate significantly to verbalized attitudes toward blindness. The researchers had selected a group of adult education students for measuring their verbalized attitudes

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toward blindness. In fact, the results of the study even indicated that attitudes were slightly more negative among those subjects who had had previous contact with the blind. A partial explanation of this apparently contradictory result may be found in the fact that the extent and type of contact were not controlled in the research.

It may be recalled at this point that a principal concern of the present research is the systematic investigation of differential attitudinal reactions as a function of contact with emotionally disturbed and physically handicapped persons.

The Relationship of Values, Personal Contact, and Intensity to Attitudes

The Role of Values

Notwithstanding the fact that the concept of value has been used in philosophical thinking since time immemorial, scientific and objective approaches to the study of values have a fairly recent history. With the singular exception of psychologists, this vital aspect of human behavior has drawn enthusiastic attention from sociologists, anthropologists, and educationists in modern times. Even the psychologists are now beginning to wonder whether an understanding of human personality is complete without a thorough analysis of the valuing behavior of individuals (Allport, 1955; Gardner and Thompson, 1963; Maslow, 1959; Rogers, 1957). It requires little imagination to appreciate the efforts

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of modern clinical and counseling psychologists in examining value systems of their clients as well as of those closely associated with them (e.g., Lowe, 1959; Samler, 1960; Williamson, 1958).

The measurement of values has been central to a variety of cross-cultural studies (Morris, 1956; Watts, 1962), studies of individual differences (Allport, Vernon, and Lindzey, 1951), societal characteristics (Morris, 1956), aspects of counseling (Rogers, 1951; Stefflre, 1958; Super, 1961), interpersonal relationships (Gardner and Thompson, 1963), and the impact of education (Jacob, 1957).

Gordon Allport (1951, 1955, 1958) has been one of the most vocal advocates of the study of values. Prejudice and negative stereotypes are most intimately related to values. In his book, The Nature of Prejudice, Allport (1958) states that "the most important categories a man has are his own personal set of values" (p. 24). He further asserts:

> Man has a propensity to prejudice. This propensity lies in his normal and natural tendency to form generalizations, concepts, categories, whose content represents an oversimplification of his world of experience (Allport, 1958, p. 26).

And Allport believes that "one type of categorization that predisposes us to make unwarranted prejudgments is our personal values" (p. 27).

Perhaps, the utility of the value concept is a function of its close ties with behavioral and motivational aspects of various theories of both society and personality. For

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example, values are central to Talcott Parsons' "theory of action" in which "value-orientations" are seen as the basis of "attitudes" taken toward various social objects (Parsons and Shils, 1951).

Recent theoretical models of attitude formation and change have attempted to incorporate values rather systematically. Katz assumes in his theory that attitudes are related to a given value system manifesting a <u>value-expressive function</u>.

> . . . in which the individual derives satisfactions from expressing attitudes appropriate to his personal values and to his concept of himself. This function is central to doctrines of ego psychology which stress the importance of self-expression, self-development, and self-realization (Katz, 1960, p. 173).

Katz (1960) has also suggested that it is easier to change isolated attitudes, whereas an attitude that is closely related to a value system is highly resistant to change.

According to Rosenberg (1956, 1960), an instrumental relationship between attitudes and values exists. He demonstrated that stable positive attitudes were perceived as instrumental to positive value attainment and the blocking of negative values, whereas stable negative values were perceived as instrumental to negative value attainment and the blocking of positive values. This is also illustrated in the fact that moderate attitudes as compared to intense ones were related to less important values.

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In his "three-process theory," Kelman (1961) considers "internalization" as the most developed attitudinal system in which the individual absorbs the attitude as part of his value system.

Since there are many other theoretical models (e.g. Festinger, 1957; Heider, 1958; Newcomb, 1963; Osgood and Tannenbaum, 1955) presenting structural and functional analyses which obviously include values, no attempt will be made to review this aspect of the literature in the present report. However, some of the major classificatory schemes used in the study of values will be presented here, for they are directly related to the present research.

Classification of Values

Various classificatory systems have been provided by researchers of different disciplines. Philosophers have classified values in such broad and vague categories as higher and lower, mental and physical, permanent and transient, intrinsic and extrinsic, instrumental and inherent. A sociologist has suggested that there are "dominant," "variant" (choice-values), and "deviant" (rejected or anti-social) values (Kluckhohn, 1953).

Perhaps, the most comprehensive psychological classification of values was proposed by Spranger (1928). In his classification, human beings are categorized into six basic value types: (a) theoretical, (b) economic, (c) esthetic, (d) political, (e) social, and (f) religious.

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The classic instrument for measuring values developed by Allport, Vernon, and Lindzey (1951) is based on Spranger's classification system.

After considering the various usage of values, Morris (1956) classified them into three categories: (a) operative values in which preference for one kind of object rather than another is expressed by living beings, (b) conceived values refer to those preferential behaviors which are directed by an anticipation of the consequence, and (c) object values where the emphasis is upon the objects which determine what is preferable for the individual.

Morris (1956) has used his well-known instrument, Ways to Live to measure "conceived values." Further attempts to measure conceived values have been made recently by Gardner and Thompson (1963), who label these as "ought to" or "prescription" values.

Other interesting classification systems have been proposed by counseling psychologists in the field of vocational counseling (Stefflre, 1958; Super, 1961). The seven values measured by Stefflre's Vocational Values Inventory are altruism, control, job freedom, money, prestige, security, and self-realization.

In a recent work, A Taxonomy of Educational Objectives: Affective Domain (Krathwohl, et al., 1964), attempts have been made to provide a conceptual framework for classifying affective variables including values in education.

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Clyde Kluckhohn (1951), in his comprehensive classification, conceives of values as having several dimensions like modality, content, generality, specificity, intensity, and so forth. Catton (1959) also refers to several dimensions of values, for example, distance of the object--spacial, social, and temporal.

A worthwhile conceptual framework has been suggested by Dumbo, Leviton, and Wright (1956); and Wright (1960) in respect to dominant value characteristics for studying value systems of those associated with handicapped persons. Values can be clustered according to whether they are derived from (a) comparisons or from (b) intrinsic assets. Wright elaborates:

> If the evaluation is based on comparison with a standard, the person is said to be invoking comparative values. . . . On the other hand, if the evaluation arises from the qualities inherent in the object of judgment itself, the person is said to be invoking asset values. What matters is the object of judgment in a setting that has its own intrinsic purposes and demands. The person's reaction is then based upon how appropriately the situational demands are fulfilled rather than on comparison with a predetermined standard (Wright, 1960, p. 29).

It is recognized that there are many situations in life, such as job selection, where comparative valuing behavior may be inescapable. Nevertheless, a humanistic view of life based on intrinsic asset values would direct a person to evaluate the disabled for his unique characteristics as a human being. Care for the disabled, elderly,

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poor and weak appear to be the direct expression of asset values. In historical perspective, an important criterion of a civilized society has been the achievement of the above goals, regardless of the differences in socioeconomic and political systems. Thus, a reasonable assumption that can be made on the basis of asset-value framework, is that those holding higher asset values would have more favorable attitudes toward the physically handicapped and emotionally disturbed than those expressing comparative valuing behavior.

Personal Contact

Many suggestions have been made in regard to the importance of personal contact in changing attitudes and reducing prejudice. Individuals have been found to modify their neutral or negative attitudes in a positive direction as a consequence of contact with members of a given group over a period of time. This fact is demonstrated in education, religion, the armed forces, and cultural exchange programs.

An experiment in modifying attitudes toward the Negro by Smith (1943) showed that a group of graduate students changed their attitudes in a favorable direction as a result of personal contact with various aspects of Harlem life.

A large-scale research by Williams (1964) and his colleagues on four communities found that work situation provides the most favorable environment for the Negroes and

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whites to interact positively. Similar results have been obtained in other studies on attitudes toward Negroes (Brophy, 1946; Deutsch and Collins, 1951; Harding and Hogrefe, 1952).

Allport (1958) has presented a brilliant exposition of various kinds of intergroup contact (pp. 250-268). He observes that more favorable attitudes are created when there is an "equal status contact," and when the contact is in pursuit of common goals. Also, those having contact with high status or high occupational group Negroes held more favorable attitudes than those having contact with lower status Negroes (pp. 254, 261-262). Close personal contact with an equal-status member of the minority group in question was also found by Watson (1950) to be a stimulant for more favorable attitudes.

However, Jacobson and his associates (1960, pp. 210-213) point out that equal status contacts are more likely to result in unfavorable attitudes if one group does not fully accept the equality of the other.

Contact on the basis of status equality promises to be a very important dimension via which attitudes of parents can be interpreted toward emotional disturbance and physical handicap.

According to Zetterberg (1963), two other variables seem to be involved in the intergroup contact: "cost of avoiding interaction" and "availability of alternative

rewards." The author explains:

> . . . if the costs of avoiding interaction are low, and if there are available alternative sources of reward, the more frequent the interaction, the greater the mutual liking (Zetterberg, 1963, p. 13).

In summary, frequent contact with a person or group is likely to lead to more favorable attitudes if: (a) the contact is between status equals in pursuit of common goals (Allport, 1958, p. 267), (b) the contact is perceived as instrumental to the realization of a desired goal value (Rosenberg, 1960, p. 521), (c) contact is with members of a higher status group (Allport, 1958, pp. 254, 261-262), (d) the contact is among status equals and the basis of status is unquestioned (Jacobson, et al., 1960, pp. 210-213), (e) the contact is volitional (Zetterberg, 1963, p. 13), and (f) the contact is selected over other rewards (Zetterberg, p. 13).

Although the social psychological research, as noted above, indicate clearly the importance of personal contact as one of the most effective agents in the mitigation of prejudice and development of positive attitudes, very few researchers have studied this aspect in the field of mental health. Only casual references have been made by some clinicians about the role of group therapy, especially with children, in diminishing prejudicial attitudes (Konopka, 1947; Rosenbaum and Berger, 1960).

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Attitude Intensity

Intensity of attitudes, which refers to the strength of cognitive, affective and motivational aspects, is particularly important to the problem of measurement. It has been suggested that the degree to which an individual is personally involved in an issue will determine the strength of his attitudes (Sherif, Sherif, and Nebergall, 1965, pp. 91, 142). In other words, this dimension of attitudes deals with the motivational and emotional aspects of the problem.

Intensity is not only an important component of attitude structure, but it is also considered as an action predictor (Rosenberg, 1960, p. 336). Because of motivational and emotional involvements, intense attitudes have been found to be highly resistant to change (Carlson, 1956, p. 259). Considering the question of relationships between attitudes and action, Rosenberg (1960) states that "the 'stronger' the attitude, the more likely it will be that the subject will take consistant action toward the attitude object" (p. 336).

Guttman and Foa (1951) have shown that intensity is related to amount of social contact with the attitude object. Thus, intensity has been established as an important attitude component, increasing predictability. It apparently varies with both related value intensity (Rosenberg, 1960) and with amount of contact (Foa, 1950; Guttman and Foa, 1951).

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Moreover, considerable research has been done to determine the "zero point" of a scale that discriminates the psychologically "true" positive from negative attitude direction (e.g., Edwards, 1957; Guttman, 1947, 1950, 1954a, 1954b; Guttman and Suchman, 1947; Suchman, 1950). Attitude intensity is regarded as an important component of attitude structure in determining the "zero point" of a scale. Locating a true zero-point appears to have the highly desirable characteristic of elimination of question bias, which often confounds cross-lingual studies. In other words, the location of a true zero-point on a scale makes it possible to compare responses between different language groups without further concern for question wording (Guttman, 1954a; Suchman and Guttman, 1947).

Another usefulness of intensity analysis is to reduce error (Guttman and Suchman, 1947; Foa, 1950) caused by habitual overstatement or understatement of feelings. However, Foa (1950) has shown that is is not usually necessary to compute this factor.

Theoretical Considerations

As mentioned before, the various studies of parental and public attitudes toward the emotionally disturbed and physically handicapped that have been executed hitherto, are mostly limited in scope and theoretical significance inasmuch as they are primarily concerned with the descriptive, applied, and practical aspects of the problem. The instruments and techniques utilized in these investigations have

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been rather specific to the particular situation. In the absence of a sound, comprehensive theoretical base, the conclusions are frequently lacking in wider applicability, generality, and theoretical relevance.

The urgent need for research studies generated by broader theoretical bases, especially in the field of rehabilitation have been emphasized by Levine (1961), Meyerson (1948, 1963), and Wright (1960). A trenchant criticism of the problem has come from O'Connor and Goldberg (1959) who state that most studies in this area are characterized by ". . . isolation without relationship to theories and findings of other studies" (p. 487). They further accuse:

> There is a tendency to neglect theoretical research and to concentrate on immediate practical problems. Too often the findings are too inconclusive to warrant wide application; seldom are they repeated and related to each other (O'Connor and Goldberg, 1959, p. 487).

Psychoanalytic Model

The research pursuits in the field of clinical psychology and child psychopathology emit a distinct psychoanalytic flavor.[1] But the increasing evidence accruing from social psychology, anthropology, and sociology regarding the importance of environmental influences on human behavior as opposed to psychobiological dominance has rendered the theoretical model of psychoanalysis controvertible and equivocal.

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Frank (1965) has presented an extensive review of forty years of research on the role of family in the development of psychopathology "without being able to feel that we are any closer to an answer than was Freud" (p. 201). Parental characteristics of "overprotectiveness," "rejection," "domination," and "deprivation and frustration" derived from psychoanalysis have not been found to be responsible for pathogenic behavior in children, according to many research reports. Frank remarks:

> It seems apparent that the major conclusion that can be drawn from these data is that there is no such thing as a schizophrenic or a neurotogenic mother or family. At least these data do not permit of the description of a particular constellation of psychological events within the home and, in particular, between mother and child that can be isolated as a unique factor in the development of one or the other kind of personality disorder (Frank, 1965, p. 198).

Social-psychological Approach

The social-psychological approach to mental health and physical disability is the major theoretical orientation of the present study. More specifically, this orientation has close resemblance to the field theoretical paradigm of interpersonal relationship as developed by Lewin (1936). The field theoretical approach has been used by Barker, *et al.* (1953); Dumbo, *et al.* (1956); Meyerson (1948, 1963); and Wright (1960) in studying attitudes toward physical disabilities.

Barker and co-workers (1953) have conceptualized the position of the physically handicapped in the modern western

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society as being characterized by three significant psychodynamic factors: (a) it is underpriviledged, (b) it is marginal, and (c) it involves exposure to more frequent psychological situations. As a matter of fact, there seems to be a close resemblance between the emotionally disturbed and physically handicapped on the one hand, and racial and religious minorities, on the other (e.g., Chesler, 1965; Handel, 1960; Himes, 1960).

Psychiatrists and clinical psychologists appear to have acknowledged the role of social and ecological factors in mental health (e.g., Caplan, 1964; Cobb, et al., 1963; Downing, et al., 1964; Meerloo, 1959). In a paper presented at the 73rd Annual Convention of the American Psychological Association, Blackman and his colleagues (1965) have ventured to build a "community mental health theory" based on sociometric approaches. In this theory:

> . . . it is postulated that a crucial aspect of the environment involves the interaction of an individual with the members of his community. One important type of interaction is with the people to whom the individual feels close and with whom he has regular, face-to-face contact. . . . One function of the interaction of these individuals is the exchange of emotional support and services (Blackman, et al., 1965, p. 191).

The above mentioned theoretical framework, thus, brings out the central constructs of self, other, reference group, social role, attitude, and value. These constructs may be subsumed under a more general, but basic dimension of "interpersonal relationship." Within this framework,

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mental illness and physical handicap may be considered a social value judgment rather than some objective phenomena in themselves. Certain roles in society have high value for maintaining the contemporary social system; and people are generally esteemed according to how they are perceived to valued social roles. Hence, attitudes toward disability should vary according to the kinds of social roles perceived to be important to the individual, or collectively to the society (Goodman, et al., 1963; Richardson, et al., 1961).

More recent approaches to social-psychological phenomena by balance theorists might also provide a new perspective in the understanding of the problem under investigation. In particular, Festinger's (1957) theory of cognitive dissonance would suggest that attitudes that are dissonant to a value orientation would tend to be abandoned, whereas consonant attitudes would be maintained (see also Rosenberg, 1960).

In consonance with the social-psychological orientation, it may be construed that actual contact with others is an important determinant of attitudinal evaluations of them (e.g., Allport, 1958; Homans, 1950). That is, the more frequent the contact between persons or groups, the more favorable is the attitude. However, frequency of contact is not related to evaluation in any simple sense. Contact frequency has been observed to be related directly

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to intensity of attitude (Guttman and Foa, 1951; Foa, 1958). Whether it is also related directly to a positive evaluation of the person seems to depend on intermediate variables such as the social status of the persons contacted, the absence of coercion in the interaction, and the availability of alternate reinforcing behaviors (e.g., Zetterberg, 1963).

We might conclude our theoretical discussion with a note of caution from Murray and Kluckhohn who stated tersely:

> A human being does not grow up in vacuum: His development is determined not only by the physical environment as the biologist proved, and by family environment as Freud proved, but, as the massive data collected by the cultural anthropologists showed by the larger societal and cultural institutions that are extolled, preached, and practiced not only by parent "carriers" but by the leading minority (authority figures), if not by the majority, of the group in which the individual is reared (Murray and Kluckhohn, 1953, p. 4).

Attitude Organization and Measurement of Attitudes

Attitude Organization

The nature of attitudes has been conceived diversely by different authors. A frequently quoted definition is that of Gordon Allport (1935). He defines:

> An attitude is a mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related (Allport, 1935, p. 810).

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Recent approaches focus on affective, cognitive, and behavioral components of attitudes (Secord and Backman, 1965).

Notwithstanding the various explanatory definitions of attitude, the definition formulated by Guttman (1950) has been utilized in the present research inasmuch as the statistical analyses of the attitudinal responses will be based on Guttman's approach. Guttman (1950) defines attitude as "a delimited totality of behavior with respect to something" (p. 51). This would include belief (cognitive component), overt action (behavioral component), and implicitly, evaluation and intensity (affective component).

According to Guttman (1950), responses on an attitude scale are one form of delimited behavior; but many kinds of behavior which are more or less intercorrelated forming separate subuniverses may be embodied in an attitude universe. Therefore, an adequate attitude abstraction from this universe should include sampling from each of the possible subuniverses, a task of uncertain empirical possibility. A limited sampling of behavior, on the other hand, would render the inferences quite restricted in range and scope. We proceed to measure attitudes on the assumption that a relationship exists between the statements made about a social object (for example, emotionally disturbed persons), and overt behavior toward that object. But this relationship needs to be substantiated by adequate empirical research.

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The underlying characteristics of attitudes and their relationship to other variables have been analyzed by Green (1954, pp. 335-336). Consistency of responses with respect to a social object is the most important characteristic. Secondly, the attitude itself is an abstraction from a set of consistent, or covarying, responses. Green states:

> In each measurement method, covariation among responses is related to the variation of an underlying variable. The latent attitude is defined by the correlations among responses (Green, 1954, p. 336).

Hence, responses in themselves are not attitudes; rather, the attitude is defined by the latent variable. The detection of this latent variable requires certain scale properties.

Attitude and related constructs, for example, value and belief, differ from other psychological variables, because they are always in terms of a referant class of social objects. Scalogram analysis employed by Guttman (1950, ch. 3), and other workers in the field is consistent with the above considerations of attitude organization. Measurement of attitudes in the present study is based on this approach.

Attitude Scales

The general framework under which the scale analysis is intended to be performed in this research, is derived primarily from the works of Guttman (1954a, 1954b) and his associates (Guttman and Foa, 1951; Guttman and Suchman,

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1947). Other experts who might also be referred to, in this connection, are Edwards (1957); Goode and Hatt (1952); Green (1954); and Riley et al. (1954).

Unlike other scales, Guttman questions whether it is meaningful to describe a respondent as having high or low attitude on the basis of his high or low scores on a set of attitude items. He considers the "ranking of respondents" more significant than the usual item ranks. He defines:

> We shall call a set of items of common content a scale if a person with a higher rank than another person is just as high or higher on every item than the other person (Guttman, 1950, p. 62).

In other words, a person with a more favorable attitude gives a response which is more favorable than, or equally favorable to, a person with a less favorable attitude on every item. Such a scale is considered "unidimensional."

An essential criterion of unidimensionality is that the pattern of responses should be reproducible from knowledge of the scale score. However, this ideal outcome of perfect consistency is rarely achieved. Hence, Guttman has devised a coefficient of reproducibility in order to allow a certain measure of "error." In fact, the author has shown that if the errors are random in a given sample of 100 persons with 5 dichotomous items, the population reproducibility need not vary more than 4 or 5 per cent (Guttman, 1950, p. 77). However, Guttman (1954a, 1954b) suggests that in order for a scale to be considered

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unidimensional, the pattern of responses must be 90 per cent reproducible.

The next question which arises at this point is how to tackle a situation when the reproducibility of a scale is lower than the desired 90 per cent. Such a scale is described as quasi-scale, if the errors occur in a random fashion. Stouffer comments:

> The correlation of the quasi-scale with an outside criterion is the same as the multiple correlation between responses to the individual item forming that scale and the outside criterion which justifies the use of sets of items from an area not scalable in the strictest sense (Stouffer, 1950, p. 5).

The criteria suggested by Guttman, when applied to the scales used in the present research would indicate that they are more or less quasi-scales rather than proper scales, in the strict Guttman sense. It may be noted, however, that the criterion of 90 per cent reproducibility is no more an absolute standard than is the selection of an alpha of .05 for the test of significance. In those areas of social research where previous studies do not provide enough comparison data, even lower limits of reproducibility may prove to be valuable. But the important criterion in regard to the scale error appears to be the randomenss of the errors. Suchman explains this problem as follows:

> The error pattern of the quasi-scale question is recognizable from the manner in which the fairly large number of errors that occur gradually decrease in number as one moves further and further

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> away from the cutting point. These errors . . . do not group together like non-scale errors (Suchman, 1950, pp. 160-161).[1]

Another issue which merits some consideration is the comparability of respondents on the basis of favorableness or unfavorableness of responses. What point on the scale marks this division? It has been shown by Foa (1950) and Suchman (1950) that slight changes of question wording might alter the response patterns considerably. The best solution to this problem is to achieve an objective "zero" point, independent of the content of the items, which will demarcate the favorable responses from the unfavorable ones.

The <u>intensity</u> component of attitude has been found to have the characteristic of solving the problem of question bias by setting zero point along the evaluative dimension of the attitude scale. Several experiments have shown that intensity will usually form a quasi-scale which, when plotted against the content dimension, will reveal the point on the content scale of the lowest intensity of response (Foa, 1950, 1961; Guttman, 1947, 1950, 1954a, 1954b; Guttman and Foa, 1951; Guttman and Suchman, 1947; Suchman, 1950; Suchman and Guttman, 1947). That is, the point of minimum intensity actually marks the point of indifference along the evaluative continuum, in respect to the item

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[1]The "cutting point" refers to the point at which the "favorable" (or, e.g.,"Yes") responses to an item, can be divided with the least amount of error from the "unfavorable" (or, e.g.,"No") responses to an item, when the respondents have been ordered on the basis of total score for all items in the scale.

content. This has been shown to mark a division between favorable and unfavorable responses. This would, then, appear to relate directly to the question of validity, since it determines with considerable certainty that a favorable response (in relation to the zero point) actually represents a favorable attitude to the content in question. It is, therefore, possible to state in respect to a particular group as to what per cent of the respondents are actually favorable, neutral, or unfavorable, as defined by an objective and invariant referent point.

Methodological Considerations

Any research undertaking in the area of attitudes and values must encounter a multitude of technical and methodological difficulties. The problems become exceedingly complex when the studies are carried out in the field, that is, outside the laboratory setting. Nevertheless, with the refinement of statistical tools and sophisticated research designs, we are now better equipped to tackle the problem in a scientific manner.

Control Group

In historical perspective, it is no wonder what earlier studies measuring attitudes adopted somewhat naive research designs. The general strategy followed by those investigators was to administer some kind of a scale at one time to group of people drawn from a specific social

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setting. Differences between the means of the various groups of the total sample were then construed by the researchers to indicate whether or not there was any difference in the attitudes of the groups compared. The conclusions thus obtained from such studies were definitely not valid since there was a conspicuous lack of control groups.

Our review of the literature on parent-child interactions has shown that the findings are highly inconsistent. This may be partly due to the variation in research methods used in the studies. Three dimensions of variation in the investigations have been identified by Spiegel and Bell. They are:

> (1) the use of large numbers of cases (30 or more) versus the study of the single case; (2) the use of subjective impressions derived from clinical case studies versus the use of objective or test measures; (3) the use of selected control groups versus studies in which no control group was reported (Spiegel and Bell, 1959, p. 121).

The authors have taken great pains in tabulating 85 parent-child studies published since 1930 with a view to comparing the methodological characteristics mentioned above. Their conclusion which has special bearing on the present research may be quoted here:

> . . . in the whole sample, clinical studies far outnumber objective methods of study, and the studies lacking a control group are much more numerous than those in which a control group is used (Speigel and Bell, 1959, p. 121).

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Selection of Variables

There are many studies which deal with one variable at a time with the result that contextual relationship of that particular variable with other related variables is lost sight of. Admittedly, it is almost impossible to control all other significant variables, yet it is possible to set up a multivariate experimental design which would not be accused of yielding spurious results. In the least, a multiple regression analysis can be used to evaluate the contribution of related variables.

Measurement Techniques

Traditionally, attitudes and values have been measured by questionnaires. But clinical research seem to favor interviews over objective measuring devices. Although the controversy surrounding clinical versus statistical prediction (Meehl, 1954) is not yet settled, researchers seem to favor the use of questionnaires for correlational analyses of the variables in question. However, some investigators believe that interview studies allow us to penetrate beyond the data provided by such psychometric instruments as questionnaires or scales.

Sears (1965) made a comparison of interviews with questionnaires for measuring mothers' attitudes toward sex and aggression. Interview measures were found to be more satisfactory in regard to independently obtained measures

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of children's behavior. But attitude scale proved more effective in replicating group differences discovered in previous studies and in measuring mothers' observed behavior.

It has also been suggested that Q-sort techniques should be used instead of interviews or questionnaires for making accurate appraisals of parental attitudes (e. g., Babbit, 1964).

Longitudinal Studies

Most studies of parental attitudes are cross-sectional, in the main, even though control groups may have been added. If attitudes and values are indicators of consistency of behavior and thought patterns, then longitudinal studies are best suited to provide reliable and valid data as to the nature of attitude with respect to a given social object. Furthermore, the role of various factors in producing and sustaining changes in attitudes and values can also be measured effectively with longitudinal research. It is not surprising, therefore, to find many longitudinal studies for measuring changes in attitudes and values of students as a consequence of college education (e.g., Lehmann, Sinha, and Hartnett, 1966; Plant, 1963; Sanford, 1962).

Johnson (1963) has made a fervent appeal for a great expansion of research in the field of disability which

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CHAPTER III

METHODOLOGY AND PROCEDURE

The primary purpose of the present research was to investigate the attitudes of mothers toward emotionally disturbed and physically handicapped persons. "Personal contact" was the basic variable on which the mothers' responses were compared. Two other dimensions emphasized in this research were "value system" and "educational experience" of the mothers selected in the study. It was also presumed that some general ecological characteristics such as, change orientation, institutional satisfaction, and popular stereotype about mental illness would influence the mothers' attitude scores. The subjects' attitudes, values, educational exposure, and other relevant aspects were measured by a set of attitude and value scales, and questionnaires eliciting demographic information.

Research Population

Since "personal contact" with emotionally disturbed and physically handicapped persons was the main concern of the present research, it was considered important to select mothers whose contact with emotionally disturbed and physically handicapped would be most intimate and

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frequent. Such a population of mothers was ideally available at a comprehensive community mental health, and a rehabilitation center located on the campus of The Betty Jane Memorial Center in Tiffin, Ohio, a typical midwestern, middle-sized community. The out-patient mental health services are provided by the Sandusky Valley Guidance Center which caters patients ranging from preschool children to adults. The rehabilitation services for the physically handicapped are rendered by the Betty Jane Rehabilitation Center.

The rationale for selection of mothers who were using the services of these two out-patient centers for their emotionally disturbed and physically handicapped children was based on the assumption that these mothers had closest, most frequent as well as different kinds of contact with such children.

The selective population for the two experimental groups, therefore, was mothers of emotionally disturbed and physically handicapped children who were using the facilities and services of their local mental health clinic and physical rehabilitation center.

The group of mothers who had neither emotionally disturbed nor physically handicapped children served as the population for the control group. These mothers were selected from Mount Pleasant, Michigan, another midwestern, middle-sized community.

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Mothers of non-disturbed and non-handicapped children were presumed to have little or no close personal contact with the emotionally disturbed or the physically handicapped as compared to mothers in the two experimental groups.

Selection of Samples

Since the samples could not be selected on a random basis because of the specific nature of the population and limited availability of subjects, selection of the samples was made according to specified criteria. Careful exploration of the possible selective factors was attempted in order that permissible generalizations could be made in the light of these selective factors.

The Experimental Groups

The first and foremost consideration was that the mothers selected for the study should have either an emotionally disturbed child or a physically handicapped child undergoing treatment in one of the two centers. The children who were new patients or ex-patients were excluded. That is, only the mothers of children under active psychotherapy or physical therapy were acceptable. The overlapping cases where the child was receiving both kinds of services at the Sandusky Valley Guidance Center and at the Betty Jane Rehabilitation Center were also excluded from the samples. Those mothers who had two children, one under psychotherapy and the other receiving

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physical therapy for the disability were screened carefully. Also, the mothers who were themselves undergoing treatment for either any mental problem or physical disability were not selected for the study.

The age range of children was between 5 and 15 years. Moreover, only those children were considered whose I. Q.'s fell within the average range of intelligence (i.e., 90-109). Administration of a standard intelligence test such as the Stanford-Binet or the Wechsler Intelligence Scale for Children to the incoming patients is a routine diagnostic procedure at both centers. As such, the I.Q. scores of the children were easily available for the purpose of sample selection. Also, the children were of both sexes in both the groups.

Insofar as the diagnostic categories of the children are concerned, all patients in the emotionally disturbed group belonged to the category of "adjustment reaction" of childhood or adolescence. The diagnostic categories in the physically handicapped group were, however, variegated. Most common disability cases were speech defectives, blind, deaf, and cripples or amputees.

The mothers thus selected came primarily from the city of Tiffin. All of them were of white race. However, there were some mothers who belonged to neighboring suburb or rural areas.

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Although exhaustive demographic data were obtained with the help of a questionnaire, no attempt was made initially to control age, income, education, marital status, mobility, residence, number of children, and so forth.

The experimental groups were originally to have consisted of all those mothers who met the above criteria of sampling. It was soon obvious, however, that many mothers were not willing to complete the various questionnaires. There were others who, although volunteering to answer the questionnaires, did not return them within a reasonable period of waiting. Of 75 mothers of emotionally disturbed children who were initially given the questionnaires, only 64 mothers returned the packet. Since four of the returned questionnaires were quite inadequate for analyses purposes, they were discarded. Thus, the actual N in the experimental group I--or the "Emotionally Disturbed Group" (EDP) as we shall call it--was 60. Similarly, of 55 mothers of the physically handicapped children who were given the questionnaires, only 50 packets were returned. The final number retained in the experimental group II--or the "Handicapped Group" (HP) as we shall call this group--was 48, as responses of two of the mothers were discarded.

The Control Group

The control group consisted of those white mothers who had "normal" children. Normality of the children was

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ensured by adding the following question at the end of Personal Questionnaire-EDP for this group of mothers:

> Please indicate below if any of your own children are/or have been physically handicapped or emotionally disturbed?

In this manner, it was checked that none of their children were handicapped--physically, mentally, or otherwise. The mothers included in the control sample were not using the services of a clinic or a physical rehabilitation center for their own emotional problems or physical disability.

Furthermore, only those mothers were given the questionnaires, who had, at least, one of their children in the age range of 5-15 years. The I.Q. of the children was found difficult to control on the basis of their scores on a standard psychological test of intelligence. However, it was ascertained that the children were progressing at normal pace in the school. In other words, they were found to be consistent with respect to age and grade. Also, these children were never placed in a 'special class' for slow learners or gifted pupils. Thus, there was a reasonable certainty that these children were of average intelligence.

The geographic location of the control sample was the city of Mount Pleasant. Mount Pleasant is a mid-western, middle-sized city similar to Tiffin in a number of demographic characteristics which will be described later.

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With the help of the principals of different schools in Mount Pleasant, 100 mothers were originally supplied with the questionnaires. The number of completed questionnaires returned was 83. Although as mentioned earlier, the demographic characteristics of the control sample was very much like the samples in the experimental groups, special care was taken to achieve comparability on the variables of age, income, and education of the subjects. With this end in view, 14 respondents were discarded so that the various response categories of age, income, and education would remain in proportion to those found in the experimental groups. Thus, the final number retained in the control group was 69.

Table 1 summarizes the data pertaining to sample size for both the control and experimental groups.

Demographic Characteristics of Experimental and Control Samples

Mothers of emotionally disturbed and physically handicapped children were primarily drawn from the city of Tiffin, Ohio. A few of them, however, did not belong to the city proper; they lived in suburbs or rural areas lying at the outskirts of the city. In similar manner, mothers who served as control subjects came primarily from Mount Pleasant, Michigan. Some of these mothers also resided in neighboring rural areas.

Tiffin is situated on the Sandusky River in the north central part of Ohio. It is the county seat of

TABLE 1.--Selection of samples.

	Number Receiving	Number Returning	Number of Rejected	Usable Test

TABLE 1.--Selection of samples.

Group[1]	Number Receiving Test Material	Number Returning Test Material	Number of Rejected Test Material	Usable Test Material	
				No.	%
Experimental I (EDP)	75	64	4	60	80.0%
Experimental II (HP)	55	50	2	48	87.2%
Control (Non-HP)	100	83	14	69	69.0%

[1]Experimental Group I = Mothers of emotionally disturbed children.
Experimental Group II = Mothers of physically handicapped children.
Control Group = Mothers of non-handicapped (normal) children.

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Seneca County. Generally speaking, it is a farm area. The city has a modest amount of industry: glassware, pottery, electrical and toolmaking machinery. Heidelberg College, a private and coeducational institution, caters to the needs of the community for higher education. In 1960, the Bureau of the Census (1963b) reported that the city has a population of 21,478. Considering the rate of population growth, the estimated population at the present time would be in the neighborhood of 24,000. The mental health and physical rehabilitation services are provided by a complex of agencies located on the campus of the Betty Jane Center.

Mount Pleasant is located in the central part of the state of Michigan. It serves as the county seat of Isabella County. According to the census (1963a), population of the city was 14,875. Presently, the estimated size of population is approximately 18,000. The growth of the city is credited to the discovery of oil in 1928. It now supplies the oil fields and refines oil. There is a state university called Central Michigan University which is coeducational and draws student population from various parts of Michigan. The city also has a Child Guidance Clinic for the diagnosis and treatment of emotionally disturbed children.

The following table derived from the United States Census of Population, 1960, provides a comparison of the

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Year	Total Popu- lation
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two cities in relation to some general characteristics of the population (1963a, 1963b):

TABLE 2.--Size of population and income in Tiffin and Mount Pleasant.

City	Total Population	Population by Sex		Median Income	Per cent With Incomes of	
		Male	Female		Under $3,000	$10,000 and Over
Tiffin	21,478	10,330	11,148	5,759	15.6	11.7
Mount Pleasant	14,875	7,374	7,501	6,229	15.6	17.6

Selection of Variables

The selection of variables for the present research was primarily stimulated by an ambitious cross-cultural research project being carried out at Michigan State University (see page 9, Chapter 1). This international research project has hypothesized a relationship between attitudes toward physical handicap and personal contact, value structure, educational orientation, and certain demographic variables. Moreover, the research reports, and theoretical and methodological considerations already reviewed in Chapter II pointed to the paucity of research data based on the variables mentioned above, particularly in the field of mental health.

Thus the theoretically-dictated and empirically supported variables were those suspected to have some

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particular relationship to the two main criterion variables: (a) attitudes toward emotionally disturbed persons, and (b) attitudes toward physically handicapped persons. The other two important variables were concerned with the value system of the subjects and their attitudes toward education. Additional variables that were selected for the study related to the respondents' change orientation.

Description of Instruments

A number of instruments were employed to measure the subjects' attitudes toward emotional disturbance and physical handicap, their value systems, their attitudes toward education, and so forth. With the exception of one, most of the measures were adapted after suitable modifications from already available tests, while some were locally constructed specifically for the study. The battery of tests consisted of the Handicapped Persons Scale, the Emotionally Disturbed Persons Scale, the Education Scale, and Survey of Interpersonal Values. In addition, a series of personal questionnaires were given They were: Personal Questionnaire (general), Personal Questionnaire--HP, and Personal Questionnaire--EDP. All the scales and personal questionnaires have been attached in Appendix A.

Handicapped Persons Scale

The items used in this scale were taken from the Attitudes Toward Disability Scale (Yuker, et al., 1960). Test-retest reliability scores were reported to range from .67 to .78. Various construct validity data (Yuker, et al., 1960, pp. 5-8) that were collected from disabled employees of Abilities, Inc., a light manufacturing company which employs disabled workers, also indicated the adequacy of the scale. Among these employees, the test was found to be negatively related to age and anxiety, and positively related to verbal intelligence and job satisfaction. Females and those with low absentee rates made higher scores. But the validating group itself has questionable generality and the rationale for item selection is not clear.

A recent study attempted to determine the factorial structure and correlates of the Attitudes Toward Disabled Persons Scale (Siller and Chipman, 1964). The obtained data indicated acceptable reliability and comparability over age and educational levels. But the author questioned the use of a single overall score. However, the test represents a major attempt to fill a gap in the field and warrants further study.

The Handicapped Persons Scale used in the present research was modified so as to make provisions for respondent scoring. The Likert-type format was retained, but the response categories for each item were reduced

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from seven to four. Another modification was that instead of requiring the respondent to transfer a number from a set of coded categories at the top of the page to indicate his response, the item alternatives were stated following each question. Since it is intended to submit the items to scale analysis rather than follow the suggested scoring system, there is no need to follow the same numerical scores.

Emotionally Disturbed Persons Scale

The scale attempts to measure the respondents' attitudes toward emotionally disturbed persons. This scale was specially constructed for the present research. Essentially the scale under consideration is based on the same item content provided in the Handicapped Persons Scale discussed in the previous section. Suitable modifications were made in the scale by substituting mental health concepts for the concepts pertaining to physical disability.

Education Scale

This scale is an adaptation of Kerlinger's Attitudes Toward Education Scale (Kerlinger, 1958, 1961; Kerlinger and Kaya, 1959). Modifications similar to those described in the Handicapped Persons Scale were made for the Education Scale.

It would not be out of order here to present a brief description of the Attitudes Toward Education Scale

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as developed by Kerlinger. The complete instrument consists of 20 items, of which 10 are "progressive," and the other 10 are "traditional." Educational attitudes have been conceptualized by Kerlinger as hinging on two relatively independent underlying factors or ideologies. They are: "traditionalism" and "progressivism." The author has shown that traditionalism can be conceived as the affirmation of a stand which emphasizes a conservative-traditional approach to educational issues. Progressivism, on the other hand, is not just the opposite of traditionalism in education. It has an existence of its own where education has a much wider connotation.

Precisely, the restrictive-traditional factor has been defined by Kerlinger (1958, p. 112) as that which emphasizes subject-matter for its own sake. The hierarchical nature of impersonal superior-inferior relationships is considered important; and external discipline is a matter of great concern. Social beliefs are preserved through the maintenance of the status quo. In contrast, the permissive-progressive factor emphasizes problem-solving with a minimum concern for the subject-matter. In this perspective, education is seen as growth and the child's interests and needs are seen as basic to education. Equality and warmth in interpersonal relationship are valued. Internal rather than external discipline is considered important. Social beliefs tend

to be liberal, and education is viewed as an instrument of change.

The Attitudes Toward Education Scale represents a factor analysis of a set of 40 items given to 598 subjects of varying backgrounds, but all apparently of above average education. The scale has been found to hold up under cross-validation; however, there is no indication that persons of lower educational attainment have been adequately represented in the studies. In fact, a surface examination of the items (see Appendix A-3) suggests that some of them may be somewhat overly complex and difficult for many people. As employed in the present study, the "progressive" and "traditional" items will be analyzed independently as two separate scales.

The Education Scale, a modified version of the Kerlinger's Attitudes Toward Education Scale, was included in the present study for several reasons. Firstly, there is some justification in hypothesizing a relationship between progressive attitudes and attitudes toward emotional disturbance and physical disability. Secondly, in a study so closely interwoven with educational concerns, the findings are interesting in their own right.

Gordon's Survey of Interpersonal Values

The selection of the Gordon Survey of Interpersonal Values (Gordon, 1960) was based on two considerations. First, an instrument was needed which would yield scores

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on items that seemed logically related to the values under test in the hypotheses. These values are: "asset" orientation to others and "comparative" orientation to others. Of the six sub-scales in the instrument, the one for Benevolence is described as: "Doing things for other people, sharing with others, helping the unfortunate, being generous" (Gordon, 1960, p. 3). In a subsequent research, Benevolence was found to correlate .49 with the Nurturance score on the Edwards Personal Preference Schedule and negatively with Achievement (-.24) and Aggression (-.28), according to Gordon (1963, p. 22). It was decided on the basis of the description, the item content, and the intercorrelations with the EPPS that the Benevolence Value proposed by Gordon would be an adequate operationalization of "asset value." The second value to be operationalized was that of a "comparative" orientation toward others. The Gordon Manual offers the follwoing definition for Recognition Value: "Being looked up to and admired, being considered important, attracting favorable notice, achieving recognition" (Gordon, 1960, p. 3). The definition for Conformity Value is: "Doing what is socially correct, following regulations closely, doing what is accepted and proper, being a conformist" (Gordon, 1960, p. 3). The value of Leadership was defined as: "Being in charge of other people, having authority over others, being in a position of leadership or power" (Gordon, 1960, p. 3).

All three of these values would appear to involve ranking of others in some kind of absolute scale, either of social acceptability (Conformity), achievement (Recognition), or power (Leadership). On the basis of surface consideration of item content, the Recognition items were judged to be most representative of Comparative values. Moreover, a correlation of .58 was found between Aggression on EPPS and Leadership. This would indicate that Leadership also is a good indicator of comparative values.

A special feature of Gordon's value scale is that it utilizes forced-choice technique. Apparently, the purpose of a forced-choice format is to control the factor of social desirability. Whether or not ipsative measures are as valid as normative measures is still a vexing problem for psychometricians. For example, Knapp (1964) made an empirical investigation of the concurrent and observational validity of Gordon's Survey of Interpersonal values. He concluded that "yes-no" response format differentiated between the two groups (Navy offenders and non-offenders) better than the forced-choice format. However, for the purposes of this study, it was considered useful to employ a measure which would curb the subjects' tendency to fake good on value questions.

Personal Questionnaire (General)

This questionnaire had two parts in it. The first part was concerned with the respondents' contacts with

school and education. It also attempted to elicit their knowledge about education. The second part of the questionnaire was intended to provide personal information about the subjects such as, age, income, education, marital status, number of children, mobility, and so forth (see Appendix A-5).

Contact with education was, thus, measured by four items (PQ 4-7) where the respondents were required to indicate: (a) how much they had worked in schools or educational settings; (b) what per cent of their income was derived from such work; (c) how they generally felt about such work; and (d) what other work opportunities they could have chosen alternatively. In addition, three other questions were asked to determine various kinds or levels of education experienced, and varieties of contact with education.

Change Orientation items contained a number of statements which purported to elicit subjects' attitudes toward change in such areas as health practices, child-rearing practices, birth control practices, automation, and political leadership (PQ 39-43). It was assumed that people expressing positive attitudes toward emotional disturbance and physical handicap would reveal greater flexibility and openness toward change. Self change (PQ 47-49), and future orientation (PQ 52-54) of the subjects were also included in the Questionnaire for measuring attitudes toward change.

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These questions were adapted from Programa Interamericano de Informacion Popular (PIIP) in Costa Rica (Felty, 1965).

Institutional satisfaction was measured by a set of nine questions (PQ31A-31I). These measures were adapted from Hyman (1955, p. 400). The institutions selected (schools, business, labor, government, health services, and churches) were listed in the question. The respondents were asked to indicate whether they judged these institutions as: excellent, good, fair, or poor in respect to how well they perform their particular job in the community. It was hypothesized that mothers who hold favorable attitudes toward the emotionally disturbed and physically disabled would be less satisfied with the institutions, generally speaking, than those mothers who express negative attitides.

Preferences for personal relationships were measured with the help of a set of three items (PQ 21-23) in Section 2 of the Questionnaire asking personal information. These three items were devised to help identify respondents or groups of respondents along a traditional-modern dimension. The predominance of affective relationships as opposed to affectively neutral relationships is supposedly one of the distinguishing characteristics of the "Gemeinshaft" or traditional orientation (e.g., Loomis, 1960, p. 61ff). One question (PQ 21) asked the respondent to indicate the approximate per cent of personal interactions

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on the job which were with persons who were close personal friends. Another question (PQ 22) asked how important it was to work with persons who were close personal friends. The third question (PQ 23) was intended to signify diffuseness of specificity of personal interactions under the hypothesis that the traditionally oriented person is more likely to have personal interactions which are diffused between job and family, or other affective non-job interactions. Loomis comments:

> Members of the Gemeinshaft-like system are likely to know each other well; their relationships are functionally diffuse in that most of the facets of human personality are revealed in the prolonged and intimate associations common to such systems (Loomis, 1960, p. 72).

In accordance with our hypotheses about values, then, those respondents who are committed to "asset" values, being more concerned with intrinsic valuation of the person rather than valuing him for his absolute achievements, should also express a greater need for personal interactions generally, and a greater diffuseness of interpersonal relationships.

Religiosity of the subjects were measured with the help of three questions (PQ 19, 20 and 38). Specifically, the questions asked were: (a) religious preference, (b) the felt importance of religion to the respondent, and (c) conformity to the rules and regulations of the religion. "Religiosity" also seemed to be related to the traditional-modern dimension, and as such higher

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scores would be expected among persons with less education and low income.

Demographic Characteristics were ascertained by a number of questions in the Personal Questionnaire. They were age (PQ 8), marital status (PQ 12), number of children (PQ 13), number of siblings (PQ 16, 17), education (PQ 26, 27), occupation (PQ 37), home ownership (PQ 29), rental (PQ 30), rural-urban youth (PQ 9), and income (PQ 14). It is not intended to use all of these demographic variables in the present data analysis because of time and space limitations. They will be utilized more fully in the larger study described on page 9.

Personal Questionnaire: HP

Contact with physically handicapped persons was measured by nine questions. The items (PQ-HP) were constructed to determine: (a) the kind of physical disability with which the mothers had had the most contact, or knew the most about (PQ-HP 1, 2); (b) the type of relationship the respondents had had with physically disabled persons --family, friends, working relationships, casual, etc. (PQ-HP 3); and (c) the approximate number of encounters the subjects had had with physically handicapped persons (PQ-HP 4). Other significant questions were designed to explore alternative opportunities (PQ-HP 9), enjoyment of contact with handicapped persons (PQ-HP 8), ease of avoidance of such contacts (PQ-HP 5), material

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gain from contact with the handicapped (PQ-HP 6), and percentage of income derived from working with the disabled (PQ-HP 7).

Personal Questionnaire: EDP

Contact with emotionally disturbed persons was determined with the help of this questionnaire which was specially constructed for the present research. The items in this questionnaire were comparable to the ones in the Personal Questionnaire: HP described above. Thus the questions provided information about the following: (a) whether or not the respondents had had any contact with emotionally disturbed persons (PQ-EDP 1); (b) the kinds of experiences the mothers had had with emotionally disturbed persons--family, friends, working relationships, etc. (PQ-EDP 2); and (c) approximate number of encounters these mothers had had with emotionally disturbed persons (PQ-EDP 3). Other important areas explored were: ease of avoidance of contact with emotionally disturbed persons (PQ-EDP 4), material gain from such contacts (PQ-EDP 5), per cent of income derived from contact while working with emotionally disturbed persons (PQ-EDP 6), enjoyment of contact with emotionally disturbed persons (PQ-EDP 7), and alternative opportunities (PQ-EDP 8).

Collection of Data

Ideally, there should have been a "testing" session in which the data could be collected in a single session. But, the composition of subjects in both control group and

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experimental groups was such that group administration of the instruments was not possible. Consequently, a set of procedures was developed for the administration of the instruments in order to ensure uniformity in conditions for data collection (see Appendix B-1).

The entire battery of scales and questionnaires were put in a large (12½"x9½") envelope. Besides the instruments arranged in a certain order, enclosed within each envelope were two mimeographed sheets: (a) an explanation of the nature and purpose of the research, and (b) a statement of the format of the administration of the scales and questionnaires with precise instructions for answering them in the prescribed order. The researcher's appreciation for the cooperation of the subject was also mentioned in the second sheet. The first sheet, therefore, served the purpose of a covering letter, whereas the second sheet contained the detailed instructions for answering the questions. Since most mothers in the sample were housewives, the language and style of the instructions were as simple and nontechnical as possible.

The subjects were required to answer the test materials in the following order:

1. Definitions of Physical Handicap
2. Education Scale
3. Survey of Interpersonal Values
4. Personal Questionnaire (general)
5. Handicapped Persons Scale
6. Personal Questionnaire: HP
7. Definition of Emotional Disturbance
8. Emotionally Disturbed Persons Scale
9. Personal Questionnaire: EDP

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For the two experimental groups in Tiffin, the envelopes were stamped and self-addressed for the convenience of returning the materials by mail. The designated secretarial staff at the Sandusky Valley Guidance Center and the Betty Jane Rehabilitation Center in Tiffin, Ohio personally handed over the envelopes to the subjects at the time they brought their children for treatment. At that time, the mothers were also advised either to return the materials by mail or bring the sealed envelopes back during their next visit to the respective centers.

Several weeks after supplying the materials, follow-up letters were mailed to all respondents in Tiffin area reminding them of the importance of this study and once again asking for their assistance and cooperation. Several weeks after this, a reminder post card was sent to all mothers with a view to prompting those who still had not yet returned the materials. The second reminder was, however, needed only in the case of mothers of physically handicapped children who were few in number.

For the control group in Mount Pleasant, Michigan, it was not considered necessary to provide stamps for mailing purposes. The active interest of the Superintendent and principals of the Mount Pleasant school system had already assured of the availability of an adequate number of subjects. Test materials were supplied to the mothers by the principals; and they were asked to return the sealed envelopes at the principal's office. No

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follow-up or reminder post cards were sent to this group of subjects.

The anonymity of the respondents as promised in the instruction sheet was scrupulously maintained. There was no identification mark on the evelopes, nor was there any on the test materials. The following procedure was adopted to approach the non-respondents in the two experimental groups in Tiffin. A list of subjects was prepared according to the sampling criteria before the test materials were supplied to them. As expected, a number of mothers had not returned the materials even after waiting several weeks. Since there was no way of recording the names of those who had returned the envelopes, the follow-up letters and reminder post cards could not be sent selectively to the non-respondents only. Consequently, all subjects were reminded, of course, with an apology to those who had already returned the questionnaires.

The number of subjects who were initially given the test materials and the number returning them have already been indicated in Table 1 along with other pertinent data about sample size.

Statistical Procedures

Descriptive Statistics

The responses were, first, scored on a special scoring sheet. They were, then, transferred to punched

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cards. Punched cards were used for analyses purposes in order that the data could be fed into the CDC 3600 computer, available at Michigan State University.

Two frequency Column Count Programs (Clark, 1964) designated as FCC I and FCC II, were used. These programs were utilized in tabulating the frequency distributions for every item. This proved to be a very useful step in selecting variables for analysis and in gaining a "clinical feel" of the data.

Inferential Statistics

The one-way analysis of variance was used for testing hypotheses about the difference between group means. For convenience of computer programming, the *F* statistic was used for most testing of mean differences, even though differences between two means are usually tested by the *t* statistic. Comparisons of *F* and *t* statistics have shown that the results are the same (e.g., Edwards, 1965, p. 146). If an *F* between group means was significant, inspection of the size of the two means indicated as to which one was the highest and consequently the main contributor to the differences reflected in the *F* ratio.

However, a significant overall *F* simply leads to non-rejection of the hypothesis being tested. In other words, we do not know whether every mean is significantly different from every other. Several methods have been proposed by statisticians for determining the nature of

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the differences between treatment means. In this research, Duncan's New Multiple Range Test (Edwards, 1965, p. 136ff), as extended for unequal replications by Kramer (1956), was used to investigate the extent to which a particular subgroup mean contributes to the total variance represented by the F test. The Duncan procedure enables the ordering of the group means from high to low and then to examine the "difference" between successive pairs-of-means to ascertain which one(s) do in fact depart from chance at a stated level of significance.

In the computer, the UNEQ1 routine (Ruble, Kiel, and Rafter, 1966b) was used to compute the one-way analysis of variance statistics. The program was specially designed to handle unequal frequencies occuring in the various categories. The "print-out" from the computer with the UNEQ1 routine also provided the frequencies, sums, means, standard deviations, sums of squares, and sums of squared deviations of the mean for each category, in addition to the analysis of variance tables. The approximate significance probability of the F statistic was also included in the "print-out." This convenient figure enabled the researcher to know at a glance whether or not the F was significant without referring to statistical tables. For example, if the number printed out was .01, this implied that for a given F with the appropriate degrees of freedom, the level of confidence would be .01. However, if only .00

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was printed out, the level of confidence was to be considered to be .005 or less.

The UNEQ1 routine also contains provision for designating one or more dependent variables as missing for an observation, but incorporating other dependent variables listed on the Analysis of Variance table as non-missing. The observation is then ignored for all dependent variables with missing values, but used in the analysis for all dependent variables with non-missing values. The number of missing values in each category is printed after the table giving statistics for the categories for each dependent variable.

Relational and Predictive Statistics

With the help of the CDC 3600 computer programs (Ruble and Rafter, 1966; Ruble, Kiel, and Rafter, 1966a, 1966b) the researcher was able to procure the following measures of association for the purposes of predictive and relational analyses: (a) zero-order correlations, (b) multiple correlations, and (c) partial correlations. The programs provided a host of data including means and standard deviations for each variable, the matrix of simple correlations between all variables, the multiple correlations of selected variables on the criterion, the beta weights of all predictor variables used in the analyses, a test of significance for each beta weight, and the partial correlations between each predictor and the cirterion.

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However, the ones which were used in this study are briefly described below.

The zero-order correlational analysis provided a matrix of simple correlations between all variables for the total sample (without considering the three groups separately). In addition to this, a matrix of simple correlations between all variables was obtained for each of the three groups used in the study. Tests of significance of the correlation coefficients from zero are the usual ones, with tables entered for the appropriate degrees of freedom.

The multiple regression analysis that was done for the data was consistent with the appropriate research hypotheses. More specifically, the various analyses employed the total raw scores, as a criterion, from the Emotionally Disturbed Persons Scale, Handicapped Persons Scale, and the Progressive and Traditional Education Scales. The multiple regression analysis was also done using the scores from Change Orientation items.

The use of multiple regression analysis has been recommended by many researchers. Ward (1962) observed that it "not only reduces the dangers inherent in piecemeal research but also facilitates the investigation of broad problems never before considered 'researchable'" (p. 206).

Partial correlation was computed from the outputs of the general multiple regression model used in the

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CDC 3600 program. The greatest advantage of using partial correlation is that a number of variables which are assumed to have some relationship to a criterion, or dependent variable can be examined simultaneously. It may very well happen that when a series of Pearsonian product-moment r's are computed between a criterion and a set of variables considered to be predictors of the criterion, spurious conclusions may be made because the predictor variables are themselves interrelated, rather than predictive of the criterion. However, partial correlation helps solve the problem by taking into account these relationships among the predictor variables in computing the true correlation of each variable with the criterion. In other words, the effects of all variables except one are taken into account.

Measurement of Attitude Intensity

The scales used in the study (the Handicapped Persons Scale, the Emotionally Disturbed Persons Scale, and the Education Scale) contained provisions for measuring intensity of attitude content. The procedure adopted in constructing and scoring intensity scales was based on Suchman's (1950) formulations.

> A simple approximation of the intensity function has been successfully attained by asking a question about intensity after each content question. One form used for an intensity question is simply: "How strongly do you feel about this?" with answer categories of "Very strongly," "Fairly strongly," and "Not so strongly." Repeating such a question

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> after such content question yields a series of intensity answers. Using the same procedure as . . . for content answers, these are scores and each respondent is given an intensity score. The intensity scores are then cross tabulated with the content scores (Suchman, 1950, p. 219).

A minor change was, however, made in the intensity scales. Four response categories were used instead of the three suggested by Suchman.

Limitations of the Study

The Problem of Research Design

As explained earlier, the basic problem of the present research was to determine whether "personal contact" with emotionally disturbed and physically handicapped has any influence on attitudes toward them. In our previous discussion on methodological issues, it was pointed out that this problem is analogous to the one encountered in studies evaluating the impact of college attendance on students' attitudes and values (e.g., Lehmann, Sinha, and Hartnett, 1966, p. 90). In this connection, Barton (1959) raised questions concerning "comparison groups" and "points-in-time" in the measurement of the effect of college experiences. There are four main types of research design, according to Barton (1959):

1. After-only comparison of exposed and unexposed persons
2. Before-and-after comparison of exposed groups only
3. Comparison of groups at different stages of exposure

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4. Before-and-after comparison of exposed and unexposed groups

The present research has a design similar to the first type in that it compares only the exposed and unexposed persons. In the context of our problem, the research design which makes comparisons of groups at different stages of exposure appears to be the best one. Thus the mothers applying for help for their patient-children may be compared with those mothers using the services of the clinic and/or rehabilitation center for varying lengths of time. It is to be noted here that this type of research is possible only when the clinic or the physical rehabilitation center has a large population of clients, and when longitudinal research is planned.

Perhaps, even a cross-sectional research like ours could have been improved by including two additional groups of mothers from those who were on the waiting list of the clinic and the rehabilitation center. It was discovered, however, that very few physically handicapped patients were on the waiting list at the Betty Jane Rehabilitation Center, although there were many emotionally disturbed children on the waiting list at the Sandusky Valley Guidance Center. Moreover, it was feared that the mothers who were not in active therapy would not cooperate in answering the questionnaires.

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The Problem of Sample Selection

Another limitation of the study that may be pointed out is the selection of control sample which was derived from a different geographical location. Apparently, it would have been better if the control sample were drawn from the city of Tiffin to which the two experimental groups belonged. But due to some unavoidable circumstances, this could not be accomplished. However, adequate precautions were taken to match the samples on relevant variables and important demographic characteristics.

The method of sampling, as explained previously, was not "random." After controlling extraneous variables (i.e., the variables not of direct interest in the investigation, but which might have affected the results) in the two experimental groups, the research population was reduced to such a size that any kind of randomization would have further violated the assumptions pertaining to the sample size. This might place some limitations on the generality of results.

The Problem of Test Administration

Group administration of questionnaires is generally considered the ideal testing condition. In this research, it was extremely difficult to collect the subjects at a time even in small groups of ten or so. Hence, it was up to the subjects to complete the questionnaires in one or several sittings on their own time.

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Viewing the problem from another angle, group administration of tests in a single session might have complicated the situation insofar as the present research is concerned. It may be recalled that there were seven different questionnaires which required a period of three hours approximately to complete them. The length of time involved in filling out the questionnaires, therefore, could have affected the subject's motivation resulting in unreliable attitude scores, if the tests were administered in a single session.

The Problem of Statistical Analysis

It was planned earlier to perform scale and intensity analyses of the data with the help of CDC 3600 Computer at Michigan State University. The specific computer program currently available was known as Multiple Scalogram Analysis (MSA), developed by Lingoes (1963) and refined by Hafterson (1964). The "CUT" computer program by Hafterson (1965) determined each possible cutting point as well as the number of errors involved in each cut. This method was found to be much more economical, in that it saved numerous hours of work and avoided errors which would have resulted from longer and more tedious methods (e.g., Suchman, 1950; Waisanen, 1960). The dichotomized items resulting from the "CUT" procedure were then to be scaled by the Multiple Scalogram Analysis program. Thus the MSA program would have selected the items forming

Guttman-type scales from the attitude instruments used in the study.

Recently two doctoral dissertations (Felty, 1965; Friesen, 1966) which have used these instruments failed to obtain sufficient items which could be considered to form scales in the Guttman sense. It may be pointed out that the underlying assumption in the Lingoes procedure is that attitudes are unidimensional. But it is more reasonable to assume that attitudes are multidimensional, and as such scale and intensity analyses would be more meaningful if the multidimensional nature of attitudes are revealed by some special technique. Lingoes (1966) has revised the original procedures to make provisions for both unidimensional and multidimensional analyses. These new computer programs were, however, not available at the time the analyses were desired. Hence, the attitude scales in the present research could not be submitted for scale and intensity analyses.

Insofar as the reliability and validity of the measuring instruments are concerned, most research using these scales have reported adequate reliability and validity (see Description of Instruments). The research data reported by Felty (1965) and Friesen (1966) pertaining to these attitude scales further substantiate their reliability and validity. Nonetheless, a further check on the reliability and validity of the instruments would have been highly desirable.

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Research Hypotheses, Rationale, and Instrumentation

Hypotheses Related to Contact Frequency, Intensity, and Attitude Scores

H:1: Contact-Intensity Interactions

H:$1a_1$: The more frequent the contact with emotionally disturbed persons, the higher will be the scores on the intensity statements of the attitude-toward-emotionally-disturbed-persons (EDP) scale, regardless of whether attitude content is favorable or unfavorable.

H:$1a_2$: Mothers of emotionally disturbed children will have greater intensity of attitude toward emotionally disturbed persons than will the mothers of physically handicapped or non-handicapped (i.e., normal) children.

H:$1a_3$: The more frequent the contact with physically handicapped persons, the higher will be the scores on the intensity statements of the handicapped persons (HP) scale, regardless of whether attitude content is favorable or unfavorable.

H:$1a_4$: Mothers of physically handicapped children will have greater intensity of attitude toward physically handicapped persons than will the mothers of emotionally disturbed or non-handicapped (i.e., normal) children.

Hypotheses Derivation (H:$1a_1$ - H:$1a_4$)

From considerations of Guttman and Foa (1951), Foa (1950), and Rosenberg (1960), to the effect that contact

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frequency is directly related to attitude intensity, regardless of content directions (see Chapter 2).

Instrumentation ($H:1a_1$ - $H:1a_4$)

Contact frequency was measured by direct questions, number 4 of the Personal Questionnaire: HP (Appendix A-6), and number 3 of the Personal Questionnaire: EDP (see Appendix A-7). The intensity scores were obtained through independent intensity questions following each attitude content statement on both the Handicapped Persons Scale and the Emotionally Disturbed Persons Scale (see Appendix A).

$H:1b_1$: The more frequent the contact with education, the higher will be the scores on the intensity statements of the Education Scale, regardless of whether attitude is traditional or progressive.

$H:1b_2$: Mothers of emotionally disturbed and physically handicapped children will have greater intensity of attitude toward education (traditional and progressive) than will the mothers of non-handicapped (i.e., normal) children.

Hypotheses Derivation ($H:1b_1$ - $H:1b_2$)

Same as H:1a above.

Instrumentation ($H:1b_1$ - $H:1b_2$)

Contact frequency was measured by direct questions, number 4 of the Personal Questionnaire: General (Appendix

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A-5). The education intensity scores were obtained in the manner described in H:1a (see Appendix A-3).

H:2: Contact-Frequency Interations

H:$2a_1$: High frequency of contact with emotionally disturbed persons will lead to favorable attitudes if high frequency is concurrent with (a) alternative rewarding opportunities, (b) enjoyment of contact, and (c) ease of avoidance of contact.

H:$2a_2$: Mothers of emotionally disturbed children will have more positive attitudes toward emotionally disturbed persons than will the mothers of physically handicapped or non-handicapped (i.e., normal) children.

H:$2a_3$: High frequency of contact with physically handicapped persons will lead to favorable attitudes if high frequency is concurrent with (a) alternative rewarding opportunities, (b) enjoyment of contact, and (c) ease of avoidance of contact.

H:$2a_4$: Mothers of physically handicapped children will have more positive attitudes toward physically handicapped persons than will the mothers of emotionally disturbed or non-handicapped (i.e., normal) children.

Hypotheses Derivation (H:$2a_1$ - H:$2a_4$)

From considerations of Homan's (1954), Zetterberg's (1963), and various studies reviewed in Chapter 2.

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Instrumentation (H:2a_1 - H:2a_4)

Attitudes toward disabled persons were measured by a 20 statement attitude instrument developed by Yuker, et al. (1960) and modified for the purposes of the present study (see Handicapped Persons Scale, Appendix A-1). Similarly, attitudes toward emotionally disturbed persons were measured by the Emotionally Disturbed Persons Scale developed specifically for the study after Yuker's Scale (Appendix A-2). Contact with physically handicapped persons were measured by direct questions in the Personal Questionnaire: HP, while contact with emotionally disturbed persons were measured by direct questions in the Personal Questionnaire: EDP. Specifically, the Personal Questionnaire: HP provided information about frequency by question number 4, alternatives by number 9, enjoyment by number 8, and avoidance by number 5. On the Personal Questionnaire: EDP, frequency was measured by question number 3, alternatives by number 8, enjoyment by number 7, and avoidance by number 4.

H:2b: High frequency of contact with education will lead to favorable attitudes if high frequency is concurrent with (a) alternative rewarding opportunities, (b) enjoyment of contact, and (c) ease of avoidance of contact.

Hypothesis Derivation (H:2b)

Same as H:2a above.

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Instrumentation (H:2b)

Attitudes toward education were measured by the Education Scale. This scale is a modification of a 20 statement attitude instrument developed by Kerlinger (1959). Contact variables were measured by direct questions in the Personnel Questionnaire (general): frequency by question number 4, alternatives by number 7, and enjoyment by number 6.

Hypotheses Related to Attitude-Value Interactions

H:3a: Mothers who score high in need for power and control over others will tend to score low in acceptance of emotionally disturbed and physically handicapped persons.

H:3b: Mothers who score high in need for power and control over others will tend to score low in progressive attitudes toward education and high in traditional attitudes toward education.

Hypotheses Derivation (H:3a - H:3b)

From considerations of Wright (1960) in respect to asset versus comparative valuations of others (see Chapter 2), and of Rosenberg (1956) to the effect that the more the belief content of an attitude is instrumental to value maintenance, the more favorable will be the evaluation of the object of attitude. Persons with high power needs are applying a comparative yardstick in evaluations of others and should be expected to devaluate persons with

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disabilities as well as progressive attitudes toward education since the latter usually implies changes in the status quo. Some empirical evidences of these hypotheses appear in findings of Felty (1965), Friesen (1966), Whiteman and Lukoff (1962).

Instrumentation (H:3a - H:3b)

Need for power and control were measured by the Leadership (L) scale of the Gordon Survey of Interpersonal Values (Appendix A-4); attitudes toward emotionally disturbed persons and attitudes toward handicapped persons, as in H:2a; and attitudes toward education, as in H:2b.

H:4a: Mothers who score high in need for recognition and achievement will tend to score low in acceptance of emotionally disturbed and physically handicapped persons.

H:4b: Mothers who score high in need for recognition and achievement will tend to score low in progressive attitudes toward education and high in traditional attitudes toward education.

H:4c: Mothers of emotionally disturbed and physically handicapped children will score low on the values of Leadership and Recognition than will the mothers of non-handicapped (i.e., normal) children.

Hypothesis Derivation (H:4a - H:4c)

As in H:3.

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Instrumentation (H:4a - H:4c)

Need for recognition and achievement, and leadership were measured by the Recognition (R), and Leadership (L) scales of the Gordon Survey of Interpersonal Values (Appendix A-4); attitudes toward emotionally disturbed and physically handicapped persons as in H:2a; and attitudes toward education as in H:2b.

H:5a: Mothers who score high in need to help others, to be generous, will tend to score high in acceptance of emotionally disturbed and physically handicapped persons.

H:5b: Mothers who score high in need to help others, to be generous, will tend to score high in progressive attitudes toward education and low in traditional attitudes toward education.

H:5c: Mothers of emotionally disturbed and physically handicapped children will score high on the value of Benevolence than will the mothers of non-handicapped (i.e., normal) children.

Hypotheses Derivation (H:5a - H:5c)

As in H:4, but stated in terms of an asset-value orientation rather than a comparative-value orientation.

Instrumentation (H:5a - H:5c)

Need to be helpful and generous was measured by the Benevolence (B) scale of the Gordon Survey of Interpersonal Values (Appendix A-4); attitudes toward emotionally

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disturbed and physically handicapped persons as in H:2a; and attitudes towards education as in H:2b.

H:6: Mothers of emotionally disturbed and physically handicapped children will score high on the value of Support than will the mothers of non-handicapped (i.e., normal) children.

H:7: Mothers of emotionally disturbed and physically handicapped children will score low on the value of Conformity than will the mothers of non-handicapped (i.e., normal) children.

Hypotheses Derivation (H:6 - H:7)

The value of Support has been defined by Gordon (1960) as: "Being treated with understanding, receiving encouragement from other people, being treated with kindness and consideration" (p. 3). Therefore, it is expected that those who are personally involved with emotionally disturbed and disabled persons would express greater need for support from others.

As defined by Gordon (1960), the Conformity value refers to: "Doing what is socially correct, following regulations closely, doing what is accepted and proper, being a conformist" (p. 3). Generally speaking, this behavior is typical of normal people; and as such they would score high on the value of conformity.

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Instrumentation (H:6 - H:7)

The values of Support and Conformity were measured by S and C scales of the Gordon Survey of Interpersonal Values (Appendix A-4).

Hypotheses Related to Change Orientation and Attitude Scores

H:8a: Mothers who score high on change orientation will also score high on positive attitudes toward emotionally disturbed and physically handicapped persons.

H:8b: Mothers who score high on change orientation will also score high on progressive attitudes toward education and low on traditional attitudes toward education.

H:9: Mothers of emotionally, disturbed and physically handicapped children will have higher mean scores than will mothers of non-handicapped (i.e., normal) children on the following change orientation measures: (a) health practices, (b) child rearing practices, (c) birth control practices, (d) automation, and (e) self change.

Hypotheses Derivation (H:8a-b, H:9)

As in H:3 and extended to connote that high scores on change orientation represent departure from the status quo and high relationship to new ideas (i.e., progressivism) and care for the disturbed and handicapped (i.e., concern for individual differences).

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Instrumentation (H:8a-b, H:9)

Change orientation was measured by questions 39-43, 47 in the Personal Questionnaire: general (Appendix A-5). These questions deal with change in health practices, child rearing, birth control, automation, political leadership, and self change. Attitudes toward the disturbed and handicapped were measured as in H:2a, and toward education as in H:2b.

Hypotheses Related to General Differences Between Mothers of Disturbed, Handicapped, and Non-Handicapped Children

H:10a: Mothers of non-handicapped (i.e., normal) children will tend to have more favorable attitudes toward physically handicapped than toward emotionally disturbed persons.

H:10b: Mothers of non-handicapped (i.e., normal) children will have less favorable attitudes toward physically handicapped persons than will the mothers of physically handicapped children.

Hypotheses Derivation (H:10a-b)

The common stereotype about mental illness in the general population, and the role of personal contact with the handicapped.

Instrumentation (H:10a-b)

Attitudes toward emotionally disturbed and physically handicapped persons were measured as in H:2a.

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CHAPTER IV

ANALYSIS OF THE DATA

This chapter is organized into two main sections:

Section 1: descriptive data on designated characteristics of the sample;

Section 2: the testing of the hypotheses presented at the end of Chapter III. This includes comparisons of mean differences of various scores of the subjects belonging to the three treatment groups and when they are considered as one sample regardless of treatment. Partial and multiple correlations have also been presented for selected variables of the study.

Section 1: Descriptive Data

The descriptive characteristics of the research samples are presented in this section. Analyses of the data are based on the FCC I and FCC II programs (see p. 102), and the CDC 3600 MDSTAT program which provides a number of statistics (see p. 104) useful for simple demographic description.

Table 3 presents the sample size of the control group and the two experimental groups. It is apparent that the number of respondents in the group consisting of mothers of physically handicapped children is not fully sufficient when compared to the other two groups. However, this may not be construed as an overly limiting

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factor in the interpretation of the results since most clinical research is based on very small number of cases owing to the restricted nature of the population. In comparison to emotionally disturbed persons, there are not many persons suffering from physical disability in the total population.

TABLE 3.--Distribution of subjects according to "treatments."[1]

Group[2]	Experimental I (EDP)	Experimental II (HP)	Control (Non-HP)	Total
Number of Subjects	60	48	69	177

[1]The term "treatments" refers to the three groups of mothers used in the study.

[2]Experimental Group I (EDP = Mothers of emotionally disturbed children.

Experimental Group II (HP) = Mothers of physically handicapped children.

Control (Non-HP) = Mothers of non-handicapped (i.e., normal) children.

The occupational composition of the total sample, divided into three respondent groups, is presented in Table 4. Inspection of the table reveals that most mothers were housewives. Although there was no stipulation in the research design to control the subjects' occupations, it

TABLE 4.--Occupational composition of the total sample by respondent [illegible]

Occupation[1]	[illegible]	[illegible]

TABLE 4.--Occupational composition of the total sample by respondent groups.

Occupation[1]		Group[2]							
		EDP		HP		Non-HP		Total	
Code	Description	Frequency	Adjusted Percentage	Frequency	Adjusted Percentage	Frequency	Adjusted Percentage	Frequency	Adjusted Percentage
10	Elementary Teachers	0	0	0	0	1	1.67	1	0.65
26	Med.-Tech.	1	1.92	1	2.38	0	0	2	1.30
27	Non-Tech-Med.	0	0	1	2.38	0	0	1	0.65
35	Researchers	0	0	1	2.38	0	0	1	0.65
36	Social Workers	1	1.92	0	0	0	0	1	0.65
43	Retail Trades	1	1.92	1	2.38	0	0	2	1.30
46	Farm Owners	0	0	1	2.38	0	0	1	0.65
50	Clerical	3	5.77	3	7.14	14	23.33	20	12.99
51	Sales Workers	5	9.62	1	2.38	1	1.67	7	4.55
52	Shopkeeper	0	0	2	4.76	1	1.67	3	1.95
53	Waiters, etc.	1	1.92	0	0	1	1.67	2	1.30
60	Craftsmen	1	1.92	2	4.76	0	0	3	1.95
61	Foremen	0	0	1	2.38	0	0	1	0.65
63	Mechanics	0	0	1	2.38	0	0	1	0.65
67	Operatives	1	1.92	0	0	0	0	1	0.65
73	Misc. Services	2	3.85	1	2.38	4	6.67	7	4.55
81	Non-Mfg.	1	1.92	0	0	0	0	1	0.65
82	Mfg-Durable	1	1.92	5	11.90	0	0	6	3.90
83	Mfg-Non-Durable	1	1.92	3	7.14	0	0	4	2.60
84	Non-Mfg-Indust.	0	0	1	2.38	0	0	1	0.65
87	No Work (Housewives)	33	63.46	17	40.48	38	68.33	88	57.14

[1]See Code Book (pp. 4-9, Appendix B-4) for complete description of occupations.

[2]EDP = Mothers of emotionally disturbed children; HP = Mothers of physically handicapped children; Non-HP = Mothers of non-handicapped (i.e., normal) children.

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Differences in Education, Income, and Age Between Respondent Groups

The data for three demographic variables of education, income, and age have been presented in Tables 5-7. The frequencies and percentages indicate that a great deal of similarity exists among three groups of subjects insofar as these selected demographic variables are concerned. However, a test of significance seems to be in order to ensure that the samples do not differ in respect to these important variables. Mean differences, standard deviations, and *F* statistics are presented in Table 8. The analyses of variance of the data do not reveal significant differences between three groups of mothers in any of the three demographic variables, namely, education, income, and age.

Using Table 8 as reference, it can be seen that the mean coded score for the total sample of 4.227 indicates that the "average" mother selected in the study has completed secondary education and may have spent some time in a university, or in some other educational institution beyond high school (e.g., a business school). It is also interesting to note that the variability of educational attainment in the total sample is fairly small as indicated by small standard deviations.

TABLE 5.--Comparison of the respondent groups in terms of actual educational attainment.

Group[1]

TABLE 5.--Comparison of the respondent groups in terms of actual educational attainment.

Code	Amount of Education	Group[1] EDP Frequency	EDP Adjusted Percentage	HP Frequency	HP Adjusted Percentage	Non-HP Frequency	Non-HP Adjusted Percentage	Total Frequency	Total Adjusted Percentage
1	Less than 4 years completed	0	0.00	0	0.00	0	0.00	0	0.00
2	From 4 to 6 years completed	2	3.64	0	0.00	0	0.00	2	1.20
3	From 7 to 9 years completed	4	7.27	9	20.00	1	1.49	14	8.38
4	From 10 to 11 years completed	40	72.72	23	51.11	45	67.16	108	64.67
5	Some college or university	6	10.91	8	17.78	18	26.87	32	19.16
6	College or university degree	2	3.64	5	11.11	3	4.48	10	5.99
7	Post-degree study	0	0.00	0	0.00	0	0.00	0	0.00
8	Advanced degree	1	1.82	0	0.00	0	0.00	1	0.60
9	Other	0	0.00	0	0.00	0	0.00	0	0.00

[1]EDP = Mothers of emotionally disturbed children.
HP = Mothers of physically handicapped children.
Non-HP = Mothers of non-handicapped (i.e., normal) children.

TABLE 6.--Comparison of the composition [illegible] Income (all families).

TABLE 6.--Comparison of the respondent groups in respect to yearly income (self-family).

Code	Income	Group[1] EDP Frequency	EDP Adjusted Percentage	HP Frequency	HP Adjusted Percentage	Non-HP Frequency	Non-HP Adjusted Percentage	Total Frequency	Total Adjusted Percentage
01	Less than $1,000	0	0.00	0	0.00	0	0.00	0	0.00
02	From $1,000 to $1,999	1	1.96	1	2.50	0	0.00	2	1.27
03	From $2,000 to $2,999	1	1.96	2	5.00	0	0.00	3	1.90
04	From $3,000 to $3,999	1	1.96	3	7.50	1	1.49	5	3.16
05	From $4,000 to $4,999	5	9.80	3	7.50	8	11.94	16	10.13
06	From $5,000 to $5,999	12	23.53	7	17.50	10	14.93	29	17.72
07	From $6,000 to $6,999	11	21.57	8	20.00	9	13.43	28	17.72
08	From $7,000 to $7,999	7	13.73	3	7.50	11	16.42	21	13.29
09	From $8,000 to $8,999	4	7.84	4	10.00	8	11.94	16	10.13
10	From $9,000 to $9,999	3	5.88	3	7.50	7	10.45	13	8.23
11	From $10,000 to $10,999	3	5.88	2	5.00	4	5.97	9	5.70
13	From $12,000 to $12,999	1	1.96	2	5.00	4	5.97	7	4.43
14	From $13,000 to $13.999	0	0.00	1	2.50	1	1.49	2	1.27
16	From $15,000 to $15,999	0	0.00	0	0.00	1	1.49	1	0.63
18	From $17,000 to $17,999	0	0.00	0	0.00	1	1.49	1	0.63
19	From $18,000 to $18,999	1	1.96	0	0.00	0	0.00	1	0.63
21	From $20,000 to $20,999	0	0.00	0	0.00	2	2.99	2	1.27
24	From $23,000 to $23,999	0	0.00	0	0.00	1	1.49	1	0.63
30	From $29,000 to $29,999	1	1.96	0	0.00	0	0.00	1	0.63
51	From $50,000 to $50,999	0	0.00	1	2.50	0	0.00	1	0.63

[1]EDP = Mothers of emotionally disturbed children.
HP = Mothers of physically handicapped children.
Non-HP = Mothers of non-handicapped (i.e., normal) children.

TABLE 7.--Comparison of the respondent groups in respect to age.

	Group[1]

TABLE 7.--Comparison of the respondent groups in respect to age.

		Group[1]							
		EDP		HP		Non-HP		Total	
Code	Age	Frequency	Adjusted Percentage	Frequency	Adjusted Percentage	Frequency	Adjusted Percentage	Frequency	Adjusted Percentage
23	23	1	1.82	1	2.33	1	1.49	3	1.82
24	24	1	1.82	0	0.00	0	0.00	1	0.61
25	25	0	0.00	2	4.65	1	1.49	3	1.82
26	26	2	3.64	1	2.33	3	4.48	6	3.64
27	27	0	0.00	0	0.00	3	4.48	3	1.82
28	28	3	5.45	4	9.30	4	5.97	11	6.67
29	29	2	3.64	1	2.33	2	2.99	5	3.03
30	30	3	5.45	2	4.65	4	5.97	9	5.45
31	31	2	3.64	1	2.33	3	4.48	6	3.64
32	32	11	20.00	3	6.98	4	5.97	18	10.91
33	33	3	5.45	5	11.63	4	5.97	12	7.27
34	34	4	7.27	3	6.98	1	1.49	9	5.45
35	35	3	5.45	2	4.65	4	5.97	9	5.45
36	36	4	7.27	3	6.98	2	2.99	9	5.45
37	37	2	3.64	2	4.65	3	4.48	7	4.24
38	38	1	1.82	2	4.65	0	0.00	3	1.82
39	39	3	5.45	2	4.65	2	2.99	7	4.24
40	40	0	0.00	1	2.33	4	5.97	5	3.03
41	41	3	5.45	1	2.33	0	0.00	4	2.42
42	42	2	3.64	1	2.33	4	5.97	7	4.24
43	43	0	0.00	2	4.65	2	2.99	4	2.42
44	44	0	0.00	0	0.00	5	7.46	5	3.03
45	45	1	1.82	1	2.33	4	5.97	6	3.64
46	46	3	5.45	2	4.65	2	2.99	7	4.24
47	47	1	1.82	0	0.00	1	1.49	2	1.21
48	48	0	0.00	0	0.00	1	1.49	1	0.61
49	49	0	0.00	0	0.00	1	1.49	1	0.61
50	50	0	0.00	0	0.00	1	1.49	1	0.61
61	61	0	0.00	1	2.33	0	0.00	1	0.61

[1]EDP = Mothers of emotionally disturbed children.
HP = Mothers of physically handicapped children.
Non-HP = Mothers of non-handicapped (i.e., normal) children.

TABLE 8.--Comparison of mean differences, standard deviations, and F statistics in respect to three demographic variables for the three respondent groups.

		Standard	Significance

TABLE 8.--Comparison of mean differences, standard deviations, and *F* statistics in respect to three demographic variables for the three respondent groups.

Variable	Group[1]	N	Mean	Standard Deviation	*F*	Significance of *F*
Education	EDP	55	4.109	0.875	1.40166	0.25
	HP	45	4.200	0.894		
	Non-HP	67	4.343	0.592		
	Total	167	4.227	0.781		
Income	EDP	51	7.843	4.130	0.70807	0.50
	HP	40	8.400	7.441		
	Non-HP	67	8.970	3.962		
	Total	158	8.462	5.101		
Age	EDP	55	34.454	5.666	0.96817	0.38
	HP	43	35.046	7.054		
	Non-HP	67	36.104	7.091		
	Total	165	35.279	6.638		

[1]EDP = Mothers of emotionally disturbed children.
HP = Mothers of physically handicapped children.
Non-HP = Mothers of non-handicapped (i.e., normal) children.

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The average income of the total sample was $8,500 approximately, although there is a considerable dispersion in the income of individual mothers. When compared with the median income of the residents in Tiffin and Mount Pleasant, these mothers have somewhat higher income. As reported in Table 2, the city of Tiffin has a median income of $5,759, whereas Mount Pleasant has $6,229 as its median income. This would suggest that those who seek the services of professional agencies for mental problems or physical disability, generally come from higher income groups.

The average age of the mothers in the research samples was 35.28 years. However the standard deviation of the total sample in respect to age data indicates that the majority of mothers fell in the age range of 28.64 to 41.92 years.

Differences in Some Other Demographic Characteristics Between Respondent Groups

Descriptive data pertaining to number of children, marital status, recent residence, and length of residence of the control group and the two experimental groups are presented in Tables 9-12. Although these variables were not of direct concern for the study, the frequencies and percentages help in providing a general comprehensive picture of the samples. On the average, mothers of emotionally disturbed and physically handicapped children

Table 9.—Comparison of the respondent groups in respect to number of children.

TABLE 9.--Comparison of the respondent groups in respect to number of children.

Code	Number of Children	Group[1] EDP Freq.	EDP Adj. %	HP Freq.	HP Adj. %	Non-HP Freq.	Non-HP Adj. %	Total Freq.	Total Adj. %
1	One	1	1.85	4	8.89	9	13.64	14	8.48
2	Two	8	14.81	5	11.11	13	19.70	26	15.76
3	Three	14	25.93	7	15.56	19	28.79	40	24.24
4	Four	10	18.52	12	26.67	13	19.70	35	21.21
5	Five	11	20.37	9	20.00	7	10.61	27	16.36
6	Six	5	9.26	4	8.89	2	3.03	11	6.67
7	Seven	2	3.70	0	0.00	0	0.00	2	1.21
8	Eight	1	1.85	3	6.67	0	0.00	4	2.42
9	Nine	1	1.85	0	0.00	1	1.52	3	1.82
10	Ten	1	1.85	1	2.22	1	1.52	3	1.82

[1]EDP = Mothers of emotionally disturbed children.
HP = Mothers of physically handicapped children.
Non-HP = Mothers of non-handicapped (i.e., normal) children.

TABLE 10.--Comparison of the respondent groups in respect to marital status.

	Group[1]		
	Non-HP	[illegible]	Total

TABLE 10.--Comparison of the respondent groups in respect to marital status.

Code	Marital Status	Group[1] EDP Freq.	EDP Adj. %	HP Freq.	HP Adj. %	Non-HP Freq.	Non-HP Adj. %	Total Freq.	Total Adj. %
1	Married	54	98.18	39	86.67	61	92.42	154	92.77
2	Single	0	0.00	0	0.00	0	0.00	0	0.00
3	Divorced	1	1.82	3	6.67	3	4.55	7	4.21
4	Widowed	0	0.00	3	6.67	2	3.03	5	3.01
5	Separated	0	0.00	0	0.00	0	0.00	0	0.00

[1]EDP = Mothers of emotionally disturbed children.
HP = Mothers of physically handicapped children.
Non-HP = Mothers of non-handicapped (i.e., normal) children.

TABLE 11.--Comparison of the respondent groups in respect to recent residence.

Code	Recent Residence	Group[1] EDP Freq.	EDP Adj. %	HP Freq.	HP Adj. %	Non-HP Freq.	Non-HP Adj. %	Total Freq.	Total Adj. %
1	Country	9	16.36	10	22.22	9	13.43	28	16.77
2	Country town	11	20.00	10	22.22	6	8.96	27	15.25
3	City	33	60.00	20	44.44	44	65.67	97	58.08
4	City suburb	2	3.64	5	11.11	8	11.94	15	8.98

[1]EDP = Mothers of emotionally disturbed children.
HP = Mothers of physically handicapped children.
Non-HP = Mothers of non-handicapped (i.e., normal) children.

TABLE 12.--Comparison of the respondent groups in respect to current length of residence (mobility).

TABLE 12.--Comparison of the respondent groups in respect to current length of residence (mobility).

Code	Length of Residence	Group[1] EDP Freq.	EDP Adj. %	HP Freq.	HP Adj. %	Non-HP Freq.	Non-HP Adj. %	Total Freq.	Total Adj. %
1	Less than a year	2	3.64	2	4.55	3	4.55	7	4.24
2	One to two years	4	7.27	2	4.55	3	4.55	9	5.45
3	Three to six years	9	16.36	8	18.18	8	12.12	25	15.15
4	Seven to ten years	8	14.55	6	13.64	8	12.12	22	13.33
5	Over ten years	32	58.18	26	59.09	44	66.67	102	61.82

[1]EDP = Mothers of emotionally disturbed children.
HP = Mothers of physically handicapped children.
Non-HP = Mothers of non-handicapped (i.e., normal) children.

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had four children, whereas mothers of the control group had three children. A large majority of mothers were living with their husbands. Less than 8 per cent of total mothers were divorced, widowed, or separated. In regard to residence, approximately 60 per cent of the mothers were living in the city, only 9 per cent of the respondents lived in city suburbs.

Since mobility has been considered by some as a contributing factor in mental illness, current length of residence of mothers of emotionally disturbed children may be noted. Nearly 73 per cent of these mothers had lived at their present residence for more than seven years. The percentage of mothers in the total sample living at one place over seven years was 75.35 per cent.

Summary of Descriptive Data in Tables 3-12

The sample size of 60 and 69 for the mothers of emotionally disturbed and non-handicapped children respectively was considered adequate for the study. However, there were only 48 mothers in the group having physically handicapped children. In the total sample, a substantial majority of mothers were housewives. The three samples were comparable in education, income, and age as indicated by statistically non-significant F statistics. The average educational level of mothers was high school or a little more. Very few mothers (about 6 per cent) had a college or university degree. Average yearly income,

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from self-employment or from family earnings, was found to be in the range of $7,000 to $8,000 for the total sample. Most mothers were a little over 35 years old and had three or four children.

None of the mothers were separated, while only 3.01 per cent were widowed and 4.21 per cent were divorced. Thus, approximately 93 per cent of the total respondents were living with their husbands. Furthermore, the demographic data reveal that 60 per cent of the mothers of emotionally disturbed children and 65.67 per cent of the mothers of non-handicapped children were living within the limits of the city. However, only 44.44 per cent of the mothers of physically handicapped children lived in the city proper, and 44.44 per cent resided in country or country town. In regard to current length of residence, a majority of the respondents had not changed residence during the past seven years.

The foregoing description of sample characteristics must be interpreted with caution inasmuch as the data based on self-report may be somewhat inflated by "social desirability" factors. This would be especially true in respect to education and income. Lacking objective external criteria, the extent or presence of a directional bias cannot be assessed.

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Section 2: Hypotheses Testing, Mean Differences, and Correlational Analyses

Hypotheses Related to Contact Frequency, Intensity, and Attitude Scores

H:1: Contact-Intensity Interactions

H:$1a_1$: The more frequent the contact with emotionally disturbed persons, the higher will be the scores on the intensity statements of the attitude-toward-emotionally-disturbed-persons (EDP) scale, regardless of whether attitude content is favorable or unfavorable.

In testing this hypothesis, intensity scores on the attitude-toward-emotionally-disturbed-persons were regarded as the dependent variable, and contact frequency scores as the independent variable. Tables 13 and 14 present statistics for all subjects regardless of treatment. In other words, all mothers were considered as one group; and then approximately 25 per cent of the total sample who had the highest intensity scores were compared with approximately 25 per cent of the mothers who had the lowest intensity scores on the EDP scale. The highly significant F ($P < .005$) indicates that frequency of contact with emotionally disturbed persons does contribute to real differences in intensity of attitudes. But high frequency of contact did not produce higher intensity scores. The mean of EDP intensity scores for the low frequency contact group is larger than the one obtained by the high frequency contact

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TABLE 13.--Means and standard deviations of intensity scores on the attitude-toward-emotionally-disturbed-persons (EDP) scale comparing high and low frequency of contact with emotionally disturbed persons for the total sample.[1]

Variable	N	Mean of EDP Intensity Scale	Standard Deviation
High frequency of contact	35	50.171	4.098
Low frequency of contact	44	52.818	3.405
Total	79	51.646	3.932

[1]Total sample refers to all respondents regardless of treatment.

TABLE 14.--Analysis of variance of the EDP intensity scores comparing high and low frequency of contact with emotionally disturbed persons for the total sample.[1]

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square	*F*	Sig. of *F*
Between categories	136.559	1	136.559	9.832	0.005
Within categories	1069.517	77	13.890		
Total	1206.076	78			

[1]Total sample refers to all respondents regardless of treatment.

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group. Hence, $H:1a_1$ cannot be considered confirmed for the total sample.

Zero-order correlations between contact and intensity scores are presented in Table 15. No significant relationship between contact with emotionally disturbed persons and intensity of attitudes toward them is observed in the total sample; yet the direction of relationship is negative. This contact with EDP is also not related to intensity scores on the HP scale, or intensity scales of progressive and traditional attitudes toward education.

$H:1a_2$: Mothers of emotionally disturbed children will have greater intensity of attitude toward emotionally disturbed persons than will the mothers of physically handicapped or non-handicapped (i.e., normal) children.

The intensity scores of the three groups of mothers (EDP, HP, and Non-HP) were compared and analyzed. Mean differences, standard deviations, and F statistics are reported in Tables 16 and 17. There exists a highly significant difference ($P < .005$) between the three respondent groups. Mean rankings, however, are not consistent with the hypothesis in that the EDP group has a lower mean score than the Non-HP group.

Although the significant F statistic supports the hypothesis that the treatment means do not come from a common population, it is still necessary to consider the relationships between pairs of means to conclude which

TABLE 15.--Zero-order correlations between contact and intensity scores on the attitude scales for the three respondent groups and the total sample.

Group[1]	Variable[2]	EDP Intensity Scale		HP Intensity Scale		ED Progressive Intensity Scale		ED Traditional Intensity Scale	
		N	r	N	r	N	r	N	r
EDP	EDP contact	48	-0.189	48	-0.091	47	0.040	47	-0.061
	HP contact	41	0.064	41	-0.302	41	-0.151	41	-0.138
	ED contact	16	0.237	16	0.162	16	0.456	16	0.174
HP	EDP contact	18	0.306	18	0.344	16	0.701**	16	0.242
	HP contact	36	-0.346*	36	-0.038	34	-0.227	34	-0.260
	ED contact	34	0.099	14	0.235	14	0.268	14	0.020
Non-HP	EDP contact	30	0.266	31	0.267	31	0.215	31	0.101
	HP contact	51	-0.010	51	-0.049	52	-0.073	52	-0.022
	ED contact	40	-0.160	40	0.070	41	-0.016	41	0.015
Total	EDP contact	96	-0.062	97	0.074	94	0.110	94	0.031
	HP contact	128	-0.175*	128	-0.222*	127	-0.094	127	-0.064
	ED contact	70	0.024	70	0.154	71	0.138	71	0.043

[1]EDP = Mothers of emotionally disturbed children.
HP = Mothers of physically handicapped children.
Non-HP = Mothers of non-handicapped (i.e., normal) children.

[2]EDP contact = contact with emotionally disturbed persons.
HP contact = contact with physically handicapped persons.
ED contact = contact with education.

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TABLE 16.--Means and standard deviations of intensity scores on the attitude-toward-emotionally-disturbed-persons (EDP) scale for the three respondent groups.

Variable	Group[1]	N	Mean of EDP Intensity Scale	Standard Deviation
Intensity of attitude toward emotionally disturbed persons	EDP	55	60.454	7.042
	HP	45	55.822	5.730
	Non-HP	66	63.667	6.316
	Total	166	60.476	7.119

Ranking of means: Non-HP (63.667) > EDP (60.454) > HP (55.822)

Duncan's Test Results: Non-HP > HP; Non-HP > EDP; EDP > HP

[1]EDP = Mothers of emotionally disturbed children.
HP = Mothers of physically handicapped children.
Non-HP = Mothers of non-handicapped (i.e., normal) children.

TABLE 17.--Analysis of variance of EDP intensity scores for the three respondent groups.

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square	*F*	Sig. of *F*
Between categories	1646.523	2	823.261	19.984	0.005
Within categories	6714.880	163	41.196		
Total	8361.403	165			

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of the treatment means is the primary source of variance. For this a test of multiple mean comparisons seems desirable. Several posteriori tests have been developed to analyze the variance between three or more means where the overall F is significant. In this study, Duncan's New Multiple Range Test, as modified by Kramer (1956) for unequal replications is used.

Table 18 reports the findings of the Duncan's test. Each group differs significantly ($P < .01$) from every other in respect to intensity of attitude toward emotionally disturbed persons. Mothers of emotionally disturbed children do not have greater intensity of attitude than that of the mothers of normal children. However, the EDP mothers do score higher than the HP mothers who obtained lowest intensity score on the EDP scale. Therefore, $H:1a_2$ is not considered to be confirmed.

The correlational analysis shown in Table 15 also does not permit the inference that there is a linear relationship between EDP contact and intensity since the correlation coefficients in all the three groups are non-significant. However, the correlation between contact with emotionally disturbed persons and intensity of progressive attitude toward education is found to be highly significant ($P < .01$) in mothers of handicapped children.

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TABLE 18.--Duncan's New Multiple Range Test applied to means of EDP intensity scale for the three respondent groups.

Range of Means (p)		2	3 df=163
Studentized ranges[1]			
for α = .05 (Z_p, df=163)		2.772	2.918
for α = .01 (Z_p, df=163)		3.643	3.796
R'_p	$\left[R' = (s)(z_p, df=163)\right]$[2] α = .05	17.796	18.733
	α = .01	23.388	24.370
Mean Differences[3]			
$\bar{X}_{Non-HP} - \bar{X}_{HP}$ (p=3)			57.423**
$\bar{X}_{Non-HP} - \bar{X}_{EDP}$ (p=2)		24.888**	
$\bar{X}_{EDP} - \bar{X}_{HP}$ (p=2)		32.591**	

[1]Significant studentized ranges for Duncan's new multiple range test with α equal to .05 and .01 taken from Edwards (1965, pp. 373-74).

[2]p = the range of means (2 and 3).
s = the square root of the error mean square of the analysis of variance of Table 17. Thus,

$$s=\sqrt{41.196} = 6.42$$

[3]Mean differences of columns 2 and 3 have been transformed into the equivalent of t - scores for multiple means. To be significant, the figure must exceed the R'p value of the same column. The formula given by Kramer (1956) is:

$$(\bar{X}_y - \bar{X}_z)\sqrt{\frac{2n_y\ n_z}{n_y + n_z}} > sz_p, \text{ error df of A. of V. } (=R'_p)$$

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H:la_3: <u>The more frequent the contact with physically handicapped persons, the higher will be the scores on the intensity statements of the attitude-toward-handicapped-persons (HP) scale, regardless of whether attitude content is favorable or unfavorable</u>.

This hypothesis was tested by dividing the entire research sample into two groups--one having high frequency of contact with handicapped persons and the other consisted of mothers who had low frequency of contact. There is no significant difference between the HP intensity means of the two groups as indicated in Tables 19 and 20. This hypothesis is not supported.

It may be pointed out that the absolute value of the mean of the low contact group is higher than the high contact group, which is similar to the findings of H:la_1. This difference was significant at the .10 level of confidence suggesting thereby a further verification of the hypothesis with the help of a large sample.

In the entire sample, a significant relationship ($P < .05$) exists between contact with handicapped persons and intensity statements on the EDP and HP scales. The direction of relationship is, however, negative (see Table 15). Thus the correlational analysis supports this hypothesis in an inverse manner. High frequency of contact with physically handicapped persons produces less intense attitudes toward both disabled and disturbed persons.

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TABLE 19.--Means and standard deviations of intensity scores on the attitude-toward-handicapped-persons (HP) scale comparing high and low frequency of contact with physically handicapped persons for the total sample.[1]

Variable	N	Mean of EDP Intensity Scale	Standard Deviation
High frequency of contact	55	60.364	6.174
Low frequency of contact	73	62.493	8.180
Total	128	61.578	7.434

[1]Total sample refers to all respondents regardless of treatment.

TABLE 20.--Analysis of variance of HP intensity scores comparing high and low frequency of contact with physically handicapped persons for the total sample.[1]

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square	*F*	Sig. of *F*
Between categories	142.245	1	142.245	2.606	0.10
Within categories	6876.974	126	54.579		
Total	7019.219	127			

[1]Total sample refers to all respondents regardless of treatment.

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H:$1a_4$: Mothers of physically handicapped children will have greater intensity of attitude toward physical handicap than will the mothers of emotionally disturbed or non-handicapped (i.e., normal) children.

As indicated in Tables 21 and 22, the means of HP intensity scores for the three groups of mothers differ significantly ($P < .005$). The highly significant F suggests that the group means do not come from a common population. But the direction of the difference does not support the hypothesis. Ranking of means reveal that mothers of normal children have the highest intensity scores followed by the mothers of emotionally disturbed children. Mothers of handicapped children express least amount of intensity in respect to attitudes toward physically handicapped persons. However, the Duncan's test (Table 23) does not indicate a statistically significant difference between the control group and the EDP mothers' group.

No prediction can be made about intensity of attitude toward the handicapped on the basis of closeness of contact (see Table 15), since there is a non-significant correlation between these two variables. Interestingly enough, a significant negative relationship is noted between HP contact and EDP intensity scores.

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TABLE 21.--Means and standard deviations of intensity scores on the attitude-toward-handicapped-persons (HP) scale for the three respondent groups.

Variable	Group[1]	N	Mean of HP Intensity Scale (Total)	Standard Deviation
Intensity of attitude toward physically handicapped persons	EDP	55	62.818	9.284
	HP	45	56.955	5.013
	Non-HP	66	63.000	6.187
	Total	166	61.301	7.554

Ranking of means: Non-HP(63.000) > EDP(62.818) > (HP(56.955)

Duncan's test results: Non-HP > HP; EDP > HP

[1]EDP = Mothers of emotionally disturbed children.
HP = Mothers of physically handicapped children.
Non-HP = Mothers of non-handicapped (i.e., normal) children.

TABLE 22.--Analysis of variance of HP intensity scores for the three respondent groups.

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square	*F*	Sig. of *F*
Between categories	1166.847	2	583.423	11.530	0.005
Within categories	8248.093	163	50.602		
Total	9414.940	165			

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TABLE 23.--Duncan's New Multiple Range Test applied to means of HP intensity scale for the three respondent groups.

Range of Means (p)		2	3	df=163
Studentized ranges[1]				
for α = .05 (Z_p,df=163)		2.772	2.918	
for α = .01 (Z_p,df=163)		3.643	3.796	
R'p [R'=(s)(z_p,df=163)][2]	α = .05	19.717	20.756	
	α = .01	25.913	27.001	
Mean differences[3]				
$\bar{X}_{Non-HP} - \bar{X}_{HP}$ (p=3)			44.219**	
$\bar{X}_{Non-HP} - \bar{X}_{EDP}$ (p=2)		1.410		
$\bar{X}_{EDP} - \bar{X}_{HP}$ (p=2)		41.252**		

[1]Significant studentized ranges for Duncan's New Multiple Range Test with α equal to .05 and .01 taken from Edwards (1965, pp. 373-74).

[2]p = the range of means (2 and 3)
s = the square root of the error mean square of the analysis of variance of Table 22. Thus,

$$s = \sqrt{50.602} = 7.113$$

[3]Mean differences of columns 2 and 3 have been transformed into the equivalent of t - scores for multiple means. To be significant, the figure must exceed the R'_p value of the same columns. The formula given by Kramer (1956) is:

$$(\bar{X}_y - \bar{X}_y)\sqrt{\frac{2n_y\ n_z}{n_y + n_z}} > sz_p, \text{ error df of A. of V. } (=R'_p)$$

**P < .01

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H:1b$_1$: <u>The more frequent the contact with education, the higher will be the scores on the intensity statements of the Education Scale, regardless of whether attitude is traditional or progressive</u>.

The statistical analyses presented in Tables 24-27 indicate that the mean differences between persons with high and low contact with education, are not significantly different on either progressive or traditional intensity scores. Thus the data do not support the hypothesis.

The zero-order correlations given in Table 15 also suggest that there is no significant relationship between educational contact and intensity of attitudes toward education or toward emotionally disturbed or handicapped persons.

H:1b$_2$: <u>Mothers of emotionally disturbed and physically handicapped children will have greater intensity of attitude toward education (traditional and progressive) than will the mothers of non-handicapped (i.e., normal) children</u>.

The non-significant *F* statistics (Tables 28-31) do not support the hypothesis that close contact with disturbed and disabled persons tends to enhance the intensity of attitude toward education. This finding is consistent with the results obtained in correlational analysis (Table 15) in that the correlation coefficients for contact with education and intensity scores on the attitude scales are not significant.

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TABLE 24.--Means and standard deviations of intensity scores on the progressive-attitude-toward-education scale comparing high and low frequency of contact with education for the total sample.[1]

Variable	N	Mean of Progressive Intensity Scale	Standard Deviation
High frequency of contact	46	32.652	2.906
Low frequency of contact	25	32.240	3.515
Total	71	32.507	3.116

[1]Total sample refers to all respondents regardless of treatment.

TABLE 25.--Analysis of variance of intensity scores on the progressive-attitude-toward-education scale comparing high and low frequency of contact with education for the total sample.[1]

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square	*F*	Sig. of *F*
Between categories	2.752	1	2.752	0.280	0.60
Within categories	676.995	69	9.811		
Total	679.647	70			

[1]Total sample refers to all respondents regardless of treatment.

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TABLE 26.--Means and standard deviations of intensity scores on the traditional-attitude-toward-education scale comparing high and low frequency of contact with education for the total sample.[1]

Variable	N	Mean of Traditional Intensity Scale	Standard Deviation
High frequency of contact	46	32.978	3.249
Low frequency of contact	25	33.640	3.108
Total	71	33.211	3.193

[1]Total sample refers to all respondents regardless of treatment.

TABLE 27.--Analysis of variance of intensity scores on the traditional-attitude-toward-education scale comparing high and low frequency of contact with education for the total sample.[1]

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square	*F*	Sig. of *F*
Between categories	7.093	1	7.093	0.692	0.41
Within categories	706.738	69	10.243		
Total	713.831	70			

[1]Total sample refers to all respondents regardless of treatment.

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TABLE 28.--Means and standard deviations of content scores on the progressive-attitude-toward-education scale for the three respondent groups.

Variable	Group[1]	N	Mean of Progressive Content Scale	Standard Deviation
Content of progressive attitude toward education	EDP	55	28.436	3.120
	HP	43	28.744	3.001
	Non-HP	68	28.176	3.507
	Total	166	28.410	3.244

[1]EDP = Mothers of emotionally disturbed children.
HP = Mothers of physically handicapped children.
Non-HP = Mothers of non-handicapped (i.e., normal) children.

TABLE 29.--Analysis of variance of content scores on the progressive-attitude-toward-education scale for the three respondent groups.

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square	*F*	Sig. of *F*
Between categories	8.549	2	4.274	0.403	0.67
Within categories	1727.596	163	10.599		
Total	1736.145	165			

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TABLE 30.--Means and standard deviations of content scores on the traditional-attitude-toward-education scale for the three respondent groups.

Variable	Group[1]	N	Mean of Traditional Content Scale	Standard Deviation
Content of traditional attitude toward education	EDP	55	29.436	3.414
	HP	43	28.512	3.418
	Non-HP	68	29.176	3.494
	Total	166	29.090	3.446

[1]EDP = Mothers of emotionally disturbed children.
HP = Mothers of physically handicapped children.
Non-HP = Mothers of non-handicapped (i.e., normal) children.

TABLE 31.--Analysis of variance of content scores on the traditional-attitude-toward-education scale for the three respondent groups.

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square	*F*	Sig. of *F*
Between categories	21.491	2	10.745	0.904	0.41
Within categories	1938.154	163	11.891		
Total	1959.645	166			

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Summary of Contact and Attitude Intensity Variables

The analyses of the data do not provide results in the direction of the hypotheses. Neither of the included hypotheses was confirmed. In fact, some hypotheses were confirmed inversely. Less frequent contact rather than high frequency of contact with emotionally disturbed and physically handicapped persons produced significantly greater intensity of attitude on the EDP and HP scales. This would appear a special case requiring further examination and will be discussed in the following chapter.

H:2: Contact-Frequency Interactions

H:2a_1: High frequency of contact with emotionally disturbed persons will lead to favorable attitudes if high frequency is concurrent with (a) alternative rewarding opportunities, (b) enjoyment of contact, and (c) ease of avoidance of contact.

Total Sample.--As indicated by Table 32, the multiple correlation relating to the combined contact variables and favorableness of attitudes toward emotionally disturbed persons is significant at the .01 level of confidence in the total sample. Because of a very small number, 'alternative to contact' was not included in this analysis. Table 32 also points out that amount of contact and enjoyment of contact when partialled out contribute most to predicting attitudes toward disturbed persons. Since high scores on the EDP content and HP content scales

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indicate negative attitudes, the direction of the partial correlations have negative signs. H:$2a_1$ is, thus, considered confirmed for the total sample.

TABLE 32.--Partial and multiple correlations between contact variables (in respect to the emotionally disturbed) and content of attitude toward emotionally disturbed persons (EDP scale)[1] in the total sample.[2]

EDP Contact Variable[3] N = 90	Partial Correlation
Amount of contact	-0.264**
Avoidance of contact	0.191
Enjoyment of contact	-0.296**
Multiple correlation	R = 0.497**

[1]Low scores on EDP content scale indicate positive attitudes.

[2]Total sample refers to all respondents regardless of treatment.

[3]EDP contact = Contact with emotionally disturbed persons.

** $P < .01$

Partial and multiple correlations were also obtained between combined EDP contact variables and attitudes toward physically handicapped persons (Table 33). Consistent with the above findings, the multiple correlation is highly significant ($P < .01$). However, unlike the previous case, enjoyment of contact did not contribute to the prediction

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of favorableness of attitude. On the otherhand, besides amount of contact, the significant variable associated with attitude on the HP content scale was avoidance of contact in the total sample.

TABLE 33.--Partial and multiple correlations between contact variables (in respect to the emotionally disturbed) and content of attitude toward physically handicapped persons (HP scale)[1] in the total sample.[2]

EDP Contact Variable[3] N=90	Partial Correlation
Amount of contact	-0.279**
Avoidance of contact	-0.307**
Enjoyment of contact	-0.160
Multiple correlation	R=0.369**

[1]Low scores on HP content scale indicate positive attitudes.

[2]Total sample refers to all respondents regardless of treatment.

[3]EDP contact = contact with emotionally disturbed persons.

**P < .01

Respondent Groups.--When the three respondent groups are compared with each other in respect to combined EDP contact variables and attitudes toward the handicapped, significant multiple and partial correlations are found only for the mothers of emotionally disturbed children (Table 34).

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But avoidance of contact when partialled out does not contribute significantly to the multiple correlation.

TABLE 34.--Partial and multiple correlations between contact variables (in respect to the emotionally disturbed) and content of attitude toward physically handicapped persons (HP Scale)[1] in the three respondent groups.[2]

EDP Contact Variables	Partial Correlation		
	EDP N=45	HP N=17	Non-HP N=28
Amount of contact	-0.476**	-0.354	-0.230
Avoidance of contact	-0.218	-0.239	-0.275
Enjoyment of contact	-0.381*	-0.231	0.184
Multiple Correlation	R=0.532**	R=0.400	R=0.353

[1]Low scores on HP content scale indicate positive attitudes.

[2]EDP = Mothers of emotionally disturbed children.
HP = Mothers of physically handicapped children.
Non-HP = Mothers of non-handicapped (i.e., normal children.

[3]EDP contact = Contact with emotionally disturbed persons.

*P < .05

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H:2a_2: Mothers of emotionally disturbed children will have more positive attitudes toward emotionally disturbed persons than will the mothers of physically handicapped or non-handicapped (i.e., normal) children.

This hypothesis is confirmed. The mean differences and standard deviations are reported in Table 35. Analysis of variance and Duncan's test results are presented in Tables 36 and 37. The absolute value of the mean for the EDP group is the lowest which indicates that mothers of emotionally disturbed children have more positive attitudes toward the disturbed compared to the other two groups of mothers. However, Duncan's test reveals that there is no significant difference between mothers of handicapped and normal children in this regard.

H:2a_3: High frequency of contact with physically handicapped persons will lead to favorable attitudes if high frequency is concurrent with (a) alternative rewarding opportunities, (b) enjoyment of contact, and (c) ease of avoidance of contact.

Total Sample.--The relationship between the combined contact variables and favorable attitudes toward handicapped persons is found to be highly significant ($P < .01$), as shown by the multiple correlation (Table 38). However, none of the individual contact variables contributed significantly to this correlation. One contact variable, alternative rewarding opportunities could

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TABLE 35.--Means and standard deviations of content scores on the attitude-toward-emotionally-disturbed-persons (EDP) scale for the three respondent groups.

Variable	Group[1]	N	Mean of EDP[2] Content Scale	Standard Deviation
Content of attitude toward emotionally disturbed persons	EDP	55	50.818	3.806
	HP	45	52.689	4.106
	Non-HP	66	52.576	3.823
	Total	166	52.024	

Ranking of Means: HP(52.689) > Non-HP(52.576) > EDP(50.818)

Duncan's test results: HP > EDP; Non-HP > EDP

[1]EDP = Mothers of emotionally disturbed children. HP = Mothers of physically handicapped children. Non-HP = Mothers of non-handicapped (i.e., normal) children.

[2]Low scores on EDP content scale indicate positive attitudes.

TABLE 36.--Analysis of variance of EDP content scores for the three respondent groups.

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square	*F*	Sig. of *F*
Between categories	119.956	2	59.978	3.952	0.02
Within categories	2473.947	163	15.178		
Total	2593.903	165			

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TABLE 37.--Duncan's New Multiple Range Test applied to means of EDP content scale for the three respondent groups.

Range of Means (p)	2	3 df=163
Studentized ranges[1]		
for α = .05 (Z_p, df=163)	2.772	2.918
for α = .01 (Z_p, df=163)	3.643	3.796
R'_p $\left[R' = (s)(z_p, df=163)\right]$[2] α = .05	10.881	11.380
α = .01	14.208	14.804
Mean differences		
$\bar{X}_{HP} - \bar{X}_{EDP}$ (p=3)		13.164*
$\bar{X}_{HP} - \bar{X}_{Non-HP}$ (p=2)	.827	
$\bar{X}_{Non-HP} - \bar{X}_{EDP}$ (p=2)	13.617*	

[1]Significant studentized ranges for Duncan's new multiple range test with α equal to .05 and .01 taken from Edwards (1965, pp. 373-74).

[2]p = the range of means (2 and 3).
s = the square root of the error mean square of the analysis of variance of Table 36. Thus,

$$s = \sqrt{15.178} = 3.90$$

[3]Mean differences of columns 2 and 3 have been transformed into the equivalent of t- score for multiple means. To be significant, the figure must exceed the R'_p value of the same column. The formula given by Kramer (1956) is:

$$(\bar{X}_y - \bar{X}_z)\sqrt{\frac{2n_y\ n_z}{n_y + n_z}} > sz_p, \text{ error df of A. of V. } (=R'_p)$$

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not be included in the analysis on account of insufficient number of cases. H:$2a_3$ is considered confirmed for the total sample.

TABLE 38.--Partial and multiple correlations between contact variables (in respect to the physically handicapped) and content of attitude toward physically handicapped persons (HP scale)[1] in the total sample.[2]

HP Contact Variable[3] N=119	Partial Correlation
Amount of contact	-0.179
Avoidance of contact	-0.119
Enjoyment of contact	-0.180
Multiple Correlation	R=0.279**

[1]Low scores on HP content scale indicate positive attitudes.

[2]Total sample refers to all respondents regardless of treatment.

[3]HP Contact = Contact with physically handicapped persons.

**P < .01

Correlational analysis was also done to determine relationship between HP contact variables and attitudes toward emotionally disturbed persons. Table 39 which presents this analysis reveals that no such relationship exists in the total sample.

TABLE 39.--Partial and multiple correlations between contact variables (in respect to the physically handicapped) and content of attitude toward emotionally disturbed persons (EDP Scale)[1] in the total sample.[2]

HP Contact Variable[3]	N=119	Partial Correlation
Amount of contact		0.019
Avoidance of contact		0.022
Enjoyment of contact		0.077
Multiple correlation		R=0.086

[1]Low scores on EDP content scale indicate positive attitudes.

[2]Total sample refers to all respondents regardless of treatment.

[3]HP Contact = contact with physically handicapped persons.

Respondent Groups.--The multiple correlation between the combined contact variables and attitudes toward physically handicapped persons is significant ($P < .01$) for the mothers of emotionally disturbed and handicapped children (Table 40). H:$2a_3$ is, therefore, partially confirmed in the three respondent groups.

A further analysis exploring relationship between combined HP contact variables and attitudes toward emotionally disturbed persons yielded no significant results in any of the three groups of mothers (Table 41).

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TABLE 40.--Partial and multiple correlations between contact variables (in respect to the physically handicapped) and content of attitude toward physically handicapped persons (HP Scale)[1] in the three respondent groups.[2]

HP Contact Variable[3]	Partial Correlation		
	EDP N=60	HP N=48	Non-HP N=69
Amount of contact	-0.133	-0.186	-0.058
Avoidance of contact	-0.236	-0.055	-0.102
Enjoyment of contact	-0.320*	-0.050	-0.044
Multiple Correlation	R=0.452**	R=0.335*	R=0.127

[1]Low scores on HP content scale indicate positive attitudes.

[2]EDP = Mothers of emotionally disturbed children.
HP = Mothers of physically handicapped children.
Non-HP = Mothers of non-handicapped (i.e., normal) children.

[3]HP contact = contact with physically handicapped persons.

*P < .05

**P < .01

TABLE 41.--Partial and multiple correlations between contact variables (in respect to the physically handicapped) and content of attitude toward emotionally disturbed persons (EDP scale)[1] in the three respondent groups.[2]

HP Contact Variable[3]	Partial Correlation		
	EDP N=60	HP N=48	Non-HP N=69
Amount of contact	-0.159	-0.049	0.220
Avoidance of contact	0.045	0.104	-0.129
Enjoyment of contact	-0.080	0.126	0.009
Multiple Correlation	R=0.179	R=0.241	R=0.268

[1]Low scores on EDP content scale indicate positive attitudes.

[2]EDP = Mothers of emotionally disturbed children.
HP = Mothers of physically handicapped children.
Non-HP = Mothers of non-handicapped (i.e., normal) children.

[3]HP contact = contact with physically handicapped persons.

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H:2a_4: Mothers of physically handicapped children will have more positive attitudes toward physically handicapped persons than will the mothers of emotionally disturbed or non-handicapped (i.e., normal) children.

The data presented in Tables 42-44 support the hypothesis. Mothers of physically handicapped children have the lowest mean score which indicates that they expressed the greatest amount of positive attitude toward the handicapped. The mean differences between the three groups are significant at the .03 level of confidence (Table 43). As revealed by Duncan's test (Table 44), attitudes of the control group mothers do not differ from those of the mothers of handicapped children.

H:2b: High frequency of contact with education will lead to favorable attitudes if high frequency is concurrent with (a) alternative rewarding opportunities, (b) enjoyment of the contact, and (c) ease of avoidance of contact.

Total Sample.--The multiple correlation (Table 45) indicates that the correlation between progressive educational attitudes and the combined contact variables is not significant. Similarly, Table 46 shows there is no significant correlation between the combined contact variables and traditional attitudes toward education. H:2b is not confirmed for the total sample.

Respondent Groups.--When mothers of three groups are compared in terms of the relationship between combined

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TABLE 42.--Means and standard deviations of content scores on the attitude-toward-handicapped persons (HP) scale for the three respondent groups.

Variable	Group[1]	N	Mean of HP[2] Content Scale	Standard Deviation
Content of attitude toward physically handicapped persons	EDP	55	46.582	4.475
	HP	45	44.022	6.218
	Non-HP	66	44.651	5.027
	Total	166	45.036	5.383

Ranking of means: EDP(46.582) > Non-HP(44.651) > HP(44.022)

Duncan's test results: EDP > HP; EDP > Non-HP

[1]EDP = Mothers of emotionally disturbed children.
HP = Mothers of physically handicapped children.
Non-HP = Mothers of non-handicapped (i.e., normal) children.

[2]Low scores on HP content scale indicate positive attitudes.

TABLE 43.--Analysis of variance of HP content scores for the three respondent groups.

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square	*F*	Sig. of *F*
Between categories	186.246	2	93.123	3.430	0.03
Within categories	4425.344	163	27.149		
Total	4611.590	165			

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TABLE 44.--Duncan's New Multiple Range Test applied to means of HP content scale for the three respondent groups.

Range of Means (p)		2	3 df=163
Studentized ranges[1]			
for α = .05 (Z_p, df=163)		2.772	2.918
for α = .01 (Z_p, df=163)		3.643	3.796
R'_p $\left[R' = (s)(z_p, df=163)\right]$[2]	α = .05	14.442	15.203
	α = .01	18.980	19.777
Mean differences[3]			
$\bar{X}_{EDP} - \bar{X}_{HP}$	(p=3)		18.012*
$\bar{X}_{EDP} - \bar{X}_{Non-HP}$	(p=2)	14.958*	
$\bar{X}_{Non-HP} - \bar{X}_{HP}$	(p=2)	4.601	

[1]Significant studentized ranges for Duncan's new multiple range test with α equal to .05 and .01 taken from Edwards (1965, pp. 373-74).

[2]p = the range of means (2 and 3).
s = the square root of the error mean square of the analysis of variance Table 43. Thus,

$$s = \sqrt{27.149} = 5.210$$

[3]Mean differences of columns 2 and 3 have been transformed into the equivalent of t - scores, for multiple means. To be significant, the figure must exceed the R'_p value of the same column. The formula given by Kramer (1956) is:

$$(\bar{X}_y - \bar{X}_z)\sqrt{\frac{2n_y\ n_z}{n_y + n_z}} > sz_p, \text{ error df of A. of V. } (=R'_p)$$

*P < .05

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contact variables and progressive attitudes toward education, significant multiple correlation is observed for the HP and Non-HP groups (Table 47). Although the multiple correlation is significant at the .01 level of confidence for the HP group, none of the three contact variables contributed significantly individually to this multiple correlation. In the control group, enjoyment of contact, when partialled out contributed significantly to the multiple correlation.

TABLE 45.--Partial and multiple correlations between contact variables (in respect to education) and content of progressive attitudes toward education in the total sample.[1]

ED Contact Variable[2]	N=42	Partial Correlation
Amount of contact		0.260
Enjoyment of contact		-0.233
Alternatives to contact		-0.127
Multiple Correlation		R=0.300

[1]Total Sample refers to all respondents regardless of treatment.

[2]ED Contact = Contact with education.

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TABLE 46.--Partial and multiple correlations between contact variables (in respect to education) and content of traditional-attitudes-toward-education in the total sample.[1]

ED Contact Variable[2] N=42	Partial Correlation
Amount of contact	0.106
Enjoyment of contact	0.028
Alternatives to contact	-0.098
Multiple Correlation	R=0.154

[1]Total Sample refers to all respondents regardless of treatment.

[2]ED Contact = Contact with education.

Insofar as relationship of combined contact variables to traditional attitudes toward education is concerned, significant multiple correlations are found for the EDP and HP groups (Table 48). When partialled out, alternatives to contact, contributed most to this relationship in the EDP group.

Notwithstanding the fact that significant multiple correlations are obtained for the respondent groups, the directions of partial correlations are not consistent with the hypothesis. In respect to progressive attitudes toward education, H:2b cannot be considered confirmed, since the majority of the partial correlation coefficients are negative. However, large amount of negative partial

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TABLE 47.--Partial and multiple correlations between contact variables (in respect to education) and content of progressive-attitudes-toward-education in the three respondent groups.[1]

ED Contact Variable	Partial Correlation		
	EDP N=60	HP N=48	Non-HP N=69
Amount of contact	-0.031	0.133	0.202
Enjoyment of contact	0.102	-0.187	-0.251*
Alternatives to contact	-0.124	0.157	-0.172
Multiple Correlation	R=0.146	R=0.388**	R=0.303*

[1]EDP = Mothers of emotionally disturbed children
HP = Mothers of physically handicapped children
Non-HP = Mothers of non-handicapped (i.e., normal) children.

[2]ED contact = contact with education.

*P < .05
**P < .01

TABLE 48.--Partial and multiple correlations between contact variables (in respect to education) and content of traditional-attitudes-toward-education in the three respondent groups.[1]

ED Contact Variables[2]	Partial Correlation		
	EDP N=60	HP N=48	Non-HP N=69
Amount of contact	0.077	-0.279	0.078
Enjoyment of contact	-0.039	0.053	0.063
Alternatives to contact	-0.332*	0.098	0.050
Multiple Correlation	R=0.348**	R=0.309*	R=0.138

[1]EDP = Mothers of emotionally disturbed children
HP = Mothers of physically handicapped children
Non-HP = Mothers of non-handicapped (i.e., normal) children.

[2]ED Contact = Contact with education.

*P < .05
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coefficients obtained for traditional attitudes toward education lend some support to this hypothesis.

Summary of Contact and Attitude Content Variables

Most hypotheses under this category have been confirmed by the data.

Total Sample.--High frequency of contact with emotionally disturbed persons is noted to be related to favorableness of attitudes toward the disturbed. Amount of contact and enjoyment of contact appear to be the most significant factors responsible for positive attitudes toward emotionally disturbed persons. The combined contact variables in respect to emotionally disturbed are also found to be related to favorableness of attitudes toward physically handicapped persons. In similar vein, the combined HP contact variables are related to favorable attitudes toward the disabled. Positive attitudes toward emotionally disturbed persons are not associated with the combined HP contact variables.

No significant relationship is observed between progressive and traditional attitudes toward education and combined contact variables concerning education in the total sample.

Respondent Groups.--Mothers of emotionally disturbed children are found to have more favorable attitudes toward the disturbed than those of mothers of physically handicapped or normal children. Similarly more positive

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attitudes toward the disabled were expressed by HP mothers in comparison to EDP mothers. But mothers of normal children did not differ significantly with HP mothers in their attitudes toward handicapped persons.

As revealed by multiple and partial correlations, the combined EDP contact variables are observed to be related to favorable attitudes toward the handicapped only in the group of mothers of emotionally disturbed children. Except the control group, mothers of emotionally disturbed and handicapped children revealed significant correlations between combined HP contact variables and positive attitudes toward the handicapped. However, no significant relationship is found between combined HP contact variables and positive attitudes toward the emotionally disturbed in any of the three groups of mothers.

Hypotheses Related to Attitude-Value Interactions

H:3a: Mothers who score high in need for power and control over others will tend to score low in acceptance of emotionally disturbed and physically handicapped persons.

This hypothesis was tested by means of analysis of variance for the entire sample which was divided into high and low groups on the basis of value scores on the Leadership sub-scale. The results are reported in Tables 49-52. Zero-order correlations between the two variables have also been presented in Tables 53 and 54.

TABLE 49.--Means and standard deviations of content scores on the attitude-toward-emotionally-disturbed-persons (EDP) scale comparing high and low scores on Leadership value for the total sample.[1]

Variable	N	Mean of EDP[2] Content Scale	Standard Deviation
High scores on Leadership value	42	50.857	4.100
Low scores on Leadership value	73	52.726	4.032
Total	115	52.043	4.139

[1]Total sample refers to all respondents regardless of treatment.

[2]Low scores on EDP content scale indicate positive attitudes.

TABLE 50.--Analysis of variance of EDP content scores comparing high and low scores on Leadership value for the total sample.[1]

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square	*F*	Sig. of *F*
Between categories	93.119	1	93.119	5.658	0.02
Within categories	1859.663	113	16.457		
Total	1952.782	114			

[1]Total sample refers to all respondents regardless of treatment.

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TABLE 51.--Means and standard deviations of content scores on the attitude-toward-handicapped-persons(HP) scale comparing high and low scores on Leadership value for the total sample.[1]

Variable	N	Mean of HP[2] Content Scale	Standard Deviation
High scores on Leadership value	42	45.643	5.026
Low scores on Leadership value	73	44.753	5.484
Total	115	45.079	5.316

[1]Total sample refers to all respondents regardless of treatment.

[2]Low scores on HP content scale indicate positive attitudes.

TABLE 52.--Analysis of variance of HP content scores comparing high and low scores on Leadership value for the total sample.

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square	*F*	Sig. of *F*
Between categories	21.091	1	21.091	0.744	0.39
Within categories	3201.205	113	28.329		
Total	3222.296	114			

TABLE 53.--Zero-order correlations between attitude-toward-emotionally-disturbed-persons scale (EDP content)[1] and the Gordon value scale for the three respondent groups and the total sample.

TABLE 53.--Zero-order correlations between attitude-toward-emotionally-disturbed-persons scale (EDP content)[1] and the Gordon value scale for the three respondent groups and the total sample.

Value	Group[2]						Total[3]	
	EDP		HP		Non-HP			
	N	r	N	r	N	r	N	r
Leadership	51	-0.192	39	-0.397*	63	-0.214	153	-0.190*
Recognition	51	0.146	39	0.393*	63	-0.055	153	0.110
Benevolence	51	0.048	39	-0.285	63	-0.003	153	-0.021
Support	51	-0.263	39	0.280	63	0.088	153	0.010
Conformity	51	0.294*	39	0.161	63	-0.034	153	0.065

[1]High EDP content scores indicate negative attitudes.

[2]EDP = Mothers of emotionally disturbed children.
HP = Mothers of physically handicapped children.
Non-HP = Mothers of non-handicapped (i.e., normal) children.

[3]Total = All respondents regardless of treatment.

*$P < .05$

TABLE 54.--Zero-order correlations between attitude-toward-handicapped-persons scale (HP content)[1] and the Gordon value scale for the three respondent groups and the

TABLE 54.--Zero-order correlations between attitude-toward-handicapped-persons scale (HP content)[1] and the Gordon value scale for the three respondent groups and the total sample.

Value	Group[2]						Total[3]	
	EDP		HP		Non-HP			
	N	r	N	r	N	r	N	r
Leadership	50	-0.192	39	0.068	63	0.108	152	0.011
Recognition	50	0.146	39	0.117	63	-0.088	152	0.090
Benevolence	50	0.048	39	-0.360*	63	0.126	152	-0.085
Support	50	-0.263	39	-0.006	63	-0.020	152	-0.017
Conformity	50	0.294*	39	0.379*	63	0.046	152	0.164*

[1]High HP content scores indicate negative attitudes.

[2]EDP = Mothers of emotionally disturbed children.
HP = Mothers of physically handicapped children.
Non-HP = Mothers of non-handicapped (i.e., normal) children.

[3]Total = All respondents regardless of treatment.

*$P < .05$

There is a significant difference between high and low scores on Leadership value and attitudes toward emotionally disturbed persons (Tables 49 and 50). But the results have reversed the hypothesized direction of difference. Also, no significant difference is found in respect to attitudes toward physically handicapped persons (Tables 51 and 52). H:3a is, therefore, not confirmed.

The correlational analysis does reveal a significant relationship between the Leadership sub-scale and the EDP content scale. However, high Leadership value scores are associated with positive attitudes toward the disturbed (Table 53). The relationship between scores on the Leadership value scale and attitudes toward handicapped persons is not significant (Table 54).

H:3b: <u>Mothers who score high in need for power and control over others will tend to score low in progressive attitudes toward education and high in traditional attitudes toward education</u>.

As indicated by Tables 55-58, there are no significant differences between mothers with high scores on Leadership value and mothers with low scores on Leadership value insofar as the progressive-attitudes-toward-education scores or traditional-attitudes-toward-education scores are concerned. This hypothesis is not confirmed.

TABLE 55.--Means and standard deviations of content scores on the progressive-attitude-toward-education scale comparing high and low scores on Leadership value for the total sample.[1]

Variable	N	Mean of Progressive Content Scale	Standard Deviation
High scores on Leadership value	41	27.902	3.223
Low scores on Leadership value	72	28.486	3.113
Total	113	28.274	3.152

[1]Total sample refers to all respondents regardless of treatment.

TABLE 56.--Analysis of variance of content scores on the progressive-attitude-toward-education scale comparing high and low scores on Leadership value for the total sample.[1]

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square	*F*	Sig. of *F*
Between categories	8.900	1	8.900	0.895	0.35
Within categories	1103.596	111	9.942		
Total	1112.496	112			

[1]Total sample refers to all respondents regardless of treatment.

TABLE 57.--Means and standard deviations of content scores on the traditional-attitude-toward-education scale comparing high and low scores on Leadership value for the total sample.[1]

Variable	N	Mean of Traditional Content Scale	Standard Deviation
High scores on Leadership value	41	28.244	3.322
Low scores on Leadership value	72	29.056	3.468
Total	113	28.761	3.423

[1]Total sample refers to all respondents regardless of treatment.

TABLE 58.--Analysis of variance of content scores on the traditional-attitude-toward-education scale comparing high and low scores on Leadership value for the total sample.[1]

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square	*F*	Sig. of *F*
Between categories	17.210	1	17.210	1.475	0.22
Within categories	1295.339	111	11.670		
Total	1312.549	112			

[1]Total sample refers to all respondents regardless of treatment.

Tables 59 and 60 reporting correlation coefficients also do not suggest any relationship between Leadership value and progressive or traditional attitudes toward education in the total sample.

H:4a: Mothers who score high in need for recognition and achievement will tend to score low in acceptance of emotionally disturbed and physically handicapped persons.

Tables 61 and 62 point out that significant differences do not exist between those who scored high and those who scored low on Recognition value in respect to acceptance of emotionally disturbed persons. Mothers who scored high on Recognition value also did not score significantly higher on the HP scale which measured attitudes toward the handicapped than did those who had lower scores on Recognition value (Tables 63 and 64). H:4a is not confirmed.

In the total sample, no significant relationship is found between Recognition value scores and attitudes toward emotionally disturbed or physically handicapped persons (Tables 53 and 54).

H:4b: Mothers who score high in need for recognition and achievement will tend to score low in progressive attitudes toward education and in traditional attitudes toward education.

As seen from Tables 65-68, there are no significant differences between mothers who scored high and those who

TABLE 59.--Zero-order correlations between progressive-attitudes-toward-education (content) and the Gordon value scale for the three respondent groups and the total sample.

Value	Group[1]						Total[2]	
	EDP		HP		Non-HP			
	N	r	N	r	N	r	N	r
Leadership	51	-0.152	37	-0.189	64	-0.047	152	-0.119
Recognition	51	-0.009	37	0.200	64	0.141	152	0.075
Benevolence	51	0.015	37	0.094	64	-0.000	152	0.036
Support	51	-0.098	37	0.206	64	0.239	152	0.107
Conformity	51	-0.038	37	-0.375*	64	-0.256*	152	-0.182*

[1]EDP = Mothers of emotionally disturbed children.
HP = Mothers of physically handicapped children.
Non-HP = Mothers of non-handicapped (i.e., normal) children.

[2]Total = all respondents regardless of treatment.

*$P < .05$

TABLE 60.--Zero-order correlations between traditional-attitudes-toward-education (content) and the Gordon value scale for the three respondent groups and the total sample.

Value	Group[1]						Total[2]	
	EDP		HP		Non-HP			
	N	r	N	r	N	r	N	r
Leadership	51	-0.136	37	-0.132	64	-0.111	152	-0.127
Recognition	51	-0.081	37	0.125	64	-0.029	152	0.008
Benevolence	51	0.106	37	0.315	64	0.281*	152	0.203*
Support	51	-0.179	37	0.200	64	-0.122	152	-0.024
Conformity	51	0.246	37	-0.128	64	0.309*	152	0.163*

[1]EDP = Mothers of emotionally disturbed children.
HP = Mothers of physically handicapped children.
Non-HP = Mothers of non-handicapped (i.e., normal) children.

[2]Total = All respondents regardless of treatment.

*$P < .05$

TABLE 61.--Means and standard deviations of content scores on the attitude-toward-emotionally-disturbed-persons (EDP) scale comparing high and low scores on Recognition value for the total sample.[1]

Variable	N	Mean of EDP[2] Content Scale	Standard Deviation
High scores on Recognition value	49	52.143	4.067
Low scores on Recognition value	68	51.471	4.005
Total	117	51.752	4.028

[1]Total sample refers to all respondents regardless of treatment.

[2]Low scores on EDP content scale indicate positive attitudes.

TABLE 62.--Analysis of variance of EDP content scores comparing high and low scores on Recognition value for the total sample.

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square	*F*	Sig. of *F*
Between categories	12.871	1	12.871	0.792	0.38
Within categories	1868.941	115	16.252		
Total	1881.812	116			

TABLE 63.--Means and standard deviations of content scores on the attitude-toward-handicapped-persons (HP) scale comparing high and low scores on Recognition value for the total sample.[1]

Variable	N	Mean of HP[2] Content Scale	Standard Deviation
High scores on Recognition value	50	45.760	5.061
Low scores on Recognition value	68	45.073	4.614
Total	118	45.364	4.800

[1]Total sample refers to all respondents regardless of treatment.

[2]Low scores on HP content scale indicate positive attitudes.

TABLE 64.--Analysis of variance of HP content scores comparing high and low scores on Recognition for the total sample.[1]

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square	*F*	Sig. of *F*
Between categories	13.578	1	13.578	0.587	0.45
Within categories	2681.752	116	23.119		
Total	2695.330	117			

[1]Total sample refers to all respondents regardless of treatment.

TABLE 65.--Means and standard deviations of content scores on the progressive-attitude-toward-education scale comparing high and low scores on Recognition value for the total sample.[1]

Variable	N	Mean of Progressive Content Scale	Standard Deviation
High scores on Recognition value	50	28.960	3.428
Low scores on Recognition value	66	28.000	2.845
Total	116	28.414	3.132

[1]Total sample refers to all respondents regardless of treatment.

TABLE 66.--Analysis of variance of content scores on the progressive-attitude-toward-education scale comparing high and low scores on Recognition value for the total sample.

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square	*F*	Sig. of *F*
Between categories	26.218	1	26.218	2.712	0.10
Within categories	1101.920	114	9.666		
Total	1128.138	115			

TABLE 67.--Means and standard deviations of content scores on the traditional-attitude-toward-education scale comparing high and low scores on Recognition value for the total sample.[1]

Variable	N	Mean of Traditional Content Scale	Standard Deviation
High scores on Recognition value	50	29.260	2.754
Low scores on Recognition value	66	28.924	3.085
Total	116	29.069	2.939

[1]Total sample refers to all respondents regardless of treatment.

TABLE 68.--Analysis of variance of content scores on the traditional-attitude-toward-education scale comparing high and low scores on Recognition value for the total sample.

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square	*F*	Sig. of *F*
Between categories	3.207	1	3.207	0.369	0.55
Within categories	990.241	114	8.686		
Total	993.448	115			

scored low on Recognition value compared with either progressive attitudes or traditional-attitudes-toward-education. It may be noted, however, that in case of progressive-attitudes-toward education, the difference between high and low scores on Recognition value is significant at the .10 level of confidence (Table 66). This would suggest a further verification of the hypothesis on another sample. H:4b is not supported by the data.

The correlation coefficients for the value variables in question also indicate a lack of statistically significant relationship for the total sample (Tables 59 and 60).

H:4c: Mothers of emotionally disturbed and physically handicapped children will score lower on the values of Leadership and Recognition than will the mothers of non-handicapped (i.e., normal) children.

Mothers of emotionally disturbed, physically handicapped, and normal children did not obtain significantly different scores on Leadership value as indicated by Tables 69 and 70. In respect to scores on Recognition value, significant differences ($P < .02$) exist between the three groups of mothers (Tables 71 and 72). But the hypothesis is not supported in the predicted direction. Ranking of means reveal that mothers of emotionally disturbed children scored the highest while HP mothers scored the lowest. Duncan's test (Table 73) indicate that

TABLE 69.--Means and standard deviations of Leadership value scores for the three respondent groups.

Variable	Group[1]	N	Mean of Leadership Value Scale	Standard Deviation
Leadership value	EDP	52	7.269	4.366
	HP	39	7.128	4.969
	Non-HP	64	8.140	5.055
	Total	155	7.593	4.803

[1]EDP = Mothers of emotionally disturbed children.
HP = Mothers of physically handicapped children.
Non-HP = Mothers of non-handicapped (i.e., normal) children.

TABLE 70.--Analysis of variance of Leadership value scores for the three respondent groups.

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square	*F*	Sig. of *F*
Between categories	33.069	2	16.535	0.714	0.50
Within categories	3520.324	152	23.160		
Total	3535.393	154			

TABLE 71.--Means and standard deviations of Recognition value scores for the three respondent groups.

Variable	Group[1]	N	Mean of Recognition Value Scale	Standard Deviation
Recognition value	EDP	52	10.000	4.106
	HP	39	7.692	3.419
	Non-HP	64	9.766	4.679
	Total	155	9.323	4.282

Ranking of means: EDP(10.000) > Non-HP(9.766) > HP(7.692)

Duncan's test results: EDP > HP; Non-HP > HP

[1]EDP = Mothers of emotionally disturbed children.
HP = Mothers of physically handicapped children.
Non-HP = Mothers of non-handicapped (i.e., normal) children.

TABLE 72.--Analysis of variance of Recognition value scores for the three respondent groups.

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square	*F*	Sig. of *F*
Between categories	140.079	2	70.039	3.967	0.02
Within categories	2683.792	152	17.656		
Total	2823.871	154			

TABLE 73.--Duncan's New Multiple Range Test applied to means of Recognition value scale for the three respondent groups.

Range of Means (p)		2	3 df=152
Studentized ranges[1]			
for α = .05 (Z_p, df=152)		2.772	2.918
for α = .01 (Z_p, df=152)		3.643	3.796
R'_p $\left[R' = (s)\ (z_p, df=152)\right]$[2]	α = .05	11.648	12.261
	α = .01	15.308	15.951
Mean differences[3]			
$\bar{X}_{EDP} - \bar{X}_{HP}$	(p=3)		15.408*
$\bar{X}_{EDP} - \bar{X}_{Non-HP}$	(p=2)	1.772	
$\bar{X}_{Non-HP} - \bar{X}_{HP}$	(p=2)	14.439*	

[1]Significant studentized ranges for Duncan's new multiple range test with α equal to .05 and .01 taken from Edwards (1965, pp. 373-74).

[2]p = the range of means (2 and 3).
s = the square root of the error mean square of the analysis of variance of Table 72. Thus,

$$s = \sqrt{17.656} = 4.202$$

[3]Mean differences of columns 2 and 3 have been transformed into the equivalent of t - scores for multiple means. To be significant, the figure must exceed the R'_p value of the same column. The formula given by Kramer (1956) is:

$$(\bar{X}_y - \bar{X}_z)\sqrt{\frac{2n_y\ n_z}{n_y + n_z}} > sz_p, \text{ error df of A. of V. } (=R'_p)$$

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there is no significant difference between control group mothers and the mothers of emotionally disturbed children. Thus, mothers of Non-HP and EDP groups scored higher on Recognition value than did the mothers of handicapped children. The hypothesis is considered confirmed only for the HP group.

Zero-order correlations between Leadership and Recognition value scores, and EDP content scores are found to be significant only in the group of mothers having physically handicapped children (Table 53). Whereas Leadership value correlated positively (contrary to the predicted relationship) with attitudes toward emotionally disturbed persons, a negative correlation supporting the hypothesized relationship is noted in case of Recognition value for the HP group (Table 53). None of the groups indicate significant relationship between HP content scores and Leadership or Recognition value (Table 54).

H:5a: Mothers who score high in need to help others, to be generous, will tend to score high in acceptance of emotionally disturbed and physically handicapped persons.

Tables 74 and 75 reveal that there are no significant differences between the means of mothers who scored high and those who scored low on Benevolence value when compared with scores on the EDP scale. Similarly, high and low scoring mothers on Benevolence value did not differ significantly in their attitudes toward physically

TABLE 74.--Means and standard deviations of content scores on the attitude-toward-emotionally-disturbed-persons (EDP) scale comparing high and low scores on Benevolence value for the total sample.[1]

Variable	N	Mean of EDP[2] Content Scale	Standard Deviation
High scores on Benevolence value	73	52.014	3.967
Low scores on Benevolence value	80	52.075	4.093
Total	153	52.046	4.020

[1]Total sample refers to all respondents regardless of treatment.

[2]Low scores on EDP content scale indicate positive attitudes.

TABLE 75.--Analysis of variance of EDP content scores comparing high and low scores for Benevolence value for the total sample.

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square	*F*	Sig. of *F*
Between categories	0.143	1	0.143	0.001	0.89
Within categories	2456.536	151	16.268		
Total	2456.679	152			

handicapped persons (Tables 76 and 77). H:5a is not confirmed.

The relationship between Benevolent value and EDP content or HP content scales is not found to be statistically significant in the total sample (Tables 53 and 54).

H:5b: Mothers who score high in need to help others, to be generous, will tend to score high in progressive attitudes toward education and low in traditional attitudes toward education.

No significant differences are found between mothers who scored high and those who scored low on Benevolence value when compared with either progressive attitudes or traditional attitudes toward education (Tables 78-81). Nonetheless, it is worthwhile to mention that considerable difference ($P < .10$) exists between traditional attitudes toward education and high and low scores on Benevolence value (Tables 78 and 79). But the difference is in the reversed direction in that mothers scoring high in Benevolence value obtained high rather than low scores on the Traditional content scale. This hypothesis is not confirmed.

The value of Benevolence, however, is found to be significantly associated with traditional attitudes toward education in the total sample (Table 60). In case of progressive attitudes, no significant relationship is seen in Table 59.

TABLE 76.--Means and standard deviations of content scores on the attitude-toward-handicapped-persons (HP) scale comparing high and low scores on Benevolence value for the total sample.[1]

Variable	N	Mean of HP[2] Content Scale	Standard Deviation
High scores on Benevolence value	73	44.781	5.606
Low scores on Benevolence value	79	45.620	4.541
Total	152	45.217	5.081

[1]Total sample refers to all respondents regardless of treatment.

[2]Low scores on HP content scale indicate positive attitude.

TABLE 77.--Analysis of variance of HP content scores comparing high and low scores on Benevolence value for the total sample.

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square	*F*	Sig. of *F*
Between categories	26.735	1	26.735	1.036	0.31
Within categories	3871.101	150	25.807		
Total	3897.836	151			

TABLE 78.--Means and standard deviations of content scores on the progressive-attitude-toward-education scale comparing high and low scores on Benevolence value for the total sample.[1]

Variable	N	Mean of Progressive Content Scale	Standard Deviation
High scores on Benevolence value	71	28.507	3.549
Low scores on Benevolence value	81	28.333	2.868
Total	152	28.414	3.194

[1]Total sample refers to all respondents regardless of treatment.

TABLE 79.--Analysis of variance of content scores on the progressive-attitude-toward-education scale comparing high and low scores on Benevolence value for the total sample.[1]

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square	*F*	Sig. of *F*
Between categories	1.142	1	1.142	0.111	0.74
Within categories	1539.746	150	10.265		
Total	1540.888	151			

[1]Total sample refers to all respondents regardless of treatment.

TABLE 80.--Means and standard deviations of content scores on the traditional-attitude-toward-education scale comparing high and low scores on Benevolence value for the total sample.[1]

Variable	N	Mean of Traditional Content Scale	Standard Deviation
High scores on Benevolence value	71	29.465	3.460
Low scores on Benevolence value	81	28.612	3.011
Total	152	29.013	3.245

[1]Total sample refers to all respondents regardless of treatment.

TABLE 81.--Analysis of variance of content scores on the traditional-attitude-toward-education scale comparing high and low scores on Benevolence value for the total sample.[1]

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square	*F*	Sig. of *F*
Between categories	27.176	1	27.176	2.608	0.10
Within categories	1562.798	150	10.419		
Total	1589.974	151			

[1]Total sample refers to all respondents regardless of treatment.

H:5c: Mothers of emotionally disturbed and physically handicapped children will score high on the value of Benevolence than will the mothers of non-handicapped (i.e., normal) children.

The hypothesis is not supported by the results shown in Tables 82 and 83. The mothers of EDP, HP, and control groups did not differ significantly in their scores on Benevolence value.

Nevertheless, significant correlation is obtained between Benevolence value and attitude toward the handicapped among the mothers of physically handicapped children (Table 54). This relationship is not found in the mothers of disturbed and normal childred on either EDP content or the HP content scales (Tables 53 and 54).

H:6: Mothers of emotionally disturbed and physically handicapped children will score high on the value of Support than will the mothers of non-handicapped (i.e., normal) children.

The findings reported in Tables 84 and 85 suggest there is a significant difference ($P < .01$) between the three groups of mothers regarding their scores on Support value. But the Duncan's test (Table 86) indicates that true difference exists only between EDP and HP mothers. In other words, mothers of emotionally disturbed children have significantly higher scores on the

TABLE 82.--Means and standard deviations of Benevolence value scores for the three respondent groups.

Variable	Group[1]	N	Mean of Benevolence Value Scale	Standard Deviation
Benevolence value	EDP	52	21.154	4.469
	HP	39	23.205	4.443
	Non-HP	64	22.437	4.632
	Total	155	22.200	4.573

[1]EDP = Mothers of emotionally disturbed children.
HP = Mothers of physically handicapped children.
Non-HP = Mothers of non-handicapped (i.e., normal) children.

TABLE 83.--Analysis of variance of Benevolence value scores for the three respondent groups.

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square	*F*	Sig. of *F*
Between groups	99.922	2	49.961	2.433	0.09
Within groups	3120.878	152	20.532		
Total	3220.800	154			

TABLE 84.--Means and standard deviations of Support value scores for the three respondent groups.

Variable	Group[1]	N	Mean of Support Value Scale	Standard Deviation
Support value	EDP	52	18.654	4.338
	HP	39	15.359	4.918
	Non-HP	64	17.125	5.382
	Total	155	17.194	5.062

Ranking of means: EDP(18.654) > Non-HP(17.125) > HP(15.359)
Duncan's test results: EDP > HP

[1]EDP = Mothers of emotionally disturbed children.
HP = Mothers of physically handicapped children.
Non-HP = Mothers of non-handicapped (i.e., normal) children.

TABLE 85.--Analysis of variance of Support value scores for the three respondent groups.

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square	*F*	Sig. of *F*
Between groups	242.450	2	121.225	4.975	0.01
Within groups	3703.744	152	24.367		
Total	3946.194	154			

TABLE 86.--Duncan's New Multiple Range Test applied to means of Support value scale for the three respondent groups.

Range of Means (p)		2	3 df=152
Studentized ranges[1]			
for α = .05 (Z_p, df=152)		2.772	2.918
for α = .01 (Z_p, df=152)		3.643	3.796
$R'_p \left[R' = (s)(z_p, df=152)\right]$[2]	α = .05	13.683	14.403
	α = .01	17.982	18.737
Mean differences[3]			
$\bar{X}_{EDP} - \bar{X}_{HP}$	(p=3)		21.997**
$\bar{X}_{EDP} - \bar{X}_{Non\text{-}HP}$	(p=2)	11.582	
$\bar{X}_{Non\text{-}HP} - \bar{X}_{HP}$	(p=2)	12.295	

[1]Significant studentized ranges for Duncan's new multiple range test with α equal to .05 and .01 taken from Edwards (1965, pp. 373-74).

[2]p = the range of means (2 and 3)
s = the square root of the error mean square of the analysis of variance of Table 85. Thus,

$$s = \sqrt{24.367} = 4.936$$

[3]Mean differences of columns 2 and 3 have been transformed into the equivalent of t - scores for multiple means. To be significant, the figure must exceed the R'_p value of the same column. The formula given by Kramer (1956) is:

$$(\bar{X}_y - \bar{X}_z)\sqrt{\frac{2n_y\ n_z}{n_y + n_z}} > sz_p, \text{ error df of A. of V. } (=R'_p)$$

**$p < .01$

value of Support than the mothers of normal or handicapped children. This hypothesis is considered only partially confirmed.

The zero-order correlations between the value of Support and attitudes toward the disturbed and the disabled are not significant either in the total sample or the three respondent groups (Tables 53 and 54).

H:7: Mothers of emotionally disturbed and physically handicapped children will score low on the value of conformity than will the mothers of non-handicapped (i.e., normal) children.

The ranking of means, standard deviations and *F* statistic are presented in Tables 87 and 88. There are significant differences ($P < .05$) between mothers of the control group and experimental groups. Nevertheless, the hypothesis is not supported as shown by Duncan's test (Table 89). Mothers of emotionally disturbed children expressed lowest Conformity value; but these mothers are not statistically different from control group mothers. Contrary to the hypothesis, HP mothers obtained highest Conformity mean, and are statistically different from Non-HP and EDP mothers. H:7 is not regarded to be confirmed.

Table 53 presenting zero-order correlations reveals that Conformity value is positively correlated with the EDP content scale in the mothers of emotionally disturbed

TABLE 87.--Means and standard deviations of Conformity value scores for the three respondent groups.

Variable	Group[1]	N	Mean of Conformity Value Scale	Standard Deviation
Conformity value	EDP	52	18.615	5.623
	HP	39	21.461	4.999
	Non-HP	64	19.125	6.119
	Total	155	19.542	5.766

Ranking of means: HP(21.461) > Non-HP(19.125) > EDP(18.615)
Duncan's test results: HP > EDP; HP > Non-HP

[1]EDP = Mothers of emotionally disturbed children.
HP = Mothers of physically handicapped children.
Non-HP = Mothers of non-handicapped (i.e., normal) children.

TABLE 88.--Analysis of variance of Conformity value scores for the three respondent groups.

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square	*F*	Sig. of *F*
Between groups	199.477	2	99.739	3.081	0.05
Within groups	4921.000	152	32.375		
Total	5120.477	154			

TABLE 89.--Duncan's New Multiple Range Test applied to means of Conformity value scale for the three respondent groups.

Range of means (p)		2	3 df=152
Studentized ranges[1]			
for α = .05 (Z_p,df=152)		2.772	2.918
for α = .01 (Z_p,df=152)		3.643	3.796
$R'_p \left[R' = (s)(z_p, df=152)\right]$[2]	α = .05	15.773	16.603
	α = .01	20.729	21.599
Mean differences[3]			
$\bar{X}_{HP} - \bar{X}_{EDP}$ (p=3)			19.000*
$\bar{X}_{HP} - \bar{X}_{Non-HP}$ (p=2)		16.263*	
$\bar{X}_{Non-HP} - \bar{X}_{EDP}$ (p=2)		3.863	

[1]Significant studentized ranges for Duncan's new multiple range test with α equal to .05 and .01 taken from Edwards (1965, pp. 373-74).

[2]p = the range of means (2 and 3).
s = the square root of the error mean square of the analysis of variance of Table 88. Thus,

$$s = \sqrt{32.375} = 5.690$$

[3]Mean differences of columns 2 and 3 have been transformed into the equivalent of t - scores for multiple means. To be significant, the figure must exceed the R'_p value of the same column. The formula given by Kramer (1956) is:

$$(\bar{X}_y - \bar{X}_z)\sqrt{\frac{2n_y n_z}{n_y + n_z}} > sz_p, \text{ error df of A. of V. } (=R'_p)$$

*P < .05

children. The value of Conformity is also found to be positively associated with attitudes toward the handicapped in the total sample as well as in the EDP and HP groups.

Summary of Attitude and Value Variables

The *F* tests and correlational analyses of the various hypotheses pertaining to attitude-value interaction did not yield consistent results. Very few hypotheses were fully confirmed.

Total Sample.--Mothers scoring high in need for power and control over others (Leadership value) scored high in acceptance of emotionally disturbed persons. But they did not score high in acceptance of physically handicapped persons. Low scores on Recognition value did not result in greater acceptance of emotionally disturbed or physically handicapped persons. Similarly, mothers who scored high in need to help others, to be generous (Benevolence value) were not different from low scoring mothers in their attitudes toward emotionally disturbed or handicapped persons.

The correlational analyses of the total sample revealed that high scores on Leadership value are significantly related to favorable attitudes toward emotionally disturbed persons. The values of Recognition and Benevolence had no correlation with EDP and HP scales.

Consistent with the above findings, attitudes toward education (progressive or traditional) were not found to be significantly different in high and low scoring mothers on the value scales of Leadership, Recognition, and Benevolence. Except for the value of Benevolence which suggested significant positive correlation with traditional attitudes toward education, none of the remaining value variables were observed to indicate significant relationships with either progressive or traditional attitudes toward education in the total sample.

Respondent Groups.--When value scores of the three groups of mothers were compared, mothers of emotionally disturbed children as well as mothers of normal children did indeed score significantly higher on Recognition value than did mothers of handicapped children. Also, EDP mothers had significantly higher scores on the value of Support compared to mothers of physically handicapped or normal children. Conformity value was found to be highest in mothers of physically handicapped children, while there was no significant difference between EDP and Non-HP mothers in this regard.

The zero-order correlations between value variables and attitude scales for the three groups of mothers revealed few significant correlations. The amount of correlations in all cases were too low to permit generalizations. Low positive correlation was observed between Leadership and EDP scores in mothers of handicapped

children. Recognition and EDP scores correlated negatively in mothers of handicapped children. Some significant negative relationships were noted between Conformity value and attitude scores on the EDP scale in mothers of emotionally disturbed children. The value of Conformity was also found to have a slight negative association with attitude scores on the HP scale in EDP and HP groups. But Benevolence did have a significant positive correlation with HP scores in mothers of handicapped children.

The relationship between progressive-attitudes-toward-education and Conformity value was detected to be significant in a positive direction for both HP and control groups. Conformity value had significant negative correlation with traditional-attitudes-toward-education for the control group only. Again, the control group mothers indicated a negative correlation between Benevolence and traditional-attitudes-toward-education.

Hypotheses Related to Change Orientation and Attitude Scores

H:8a: Mothers who score high on change orientation will also score high on positive attitudes toward emotionally disturbed and physically handicapped persons.

Total Sample.--According to Table 90, the multiple correlation between change orientation and attitudes toward emotionally disturbed persons is highly significant ($P < .01$). When the six change variables are

TABLE 90.--Partial and multiple correlations between change variables and content of attitudes toward emotionally disturbed persons (EDP scale)[1] for the total sample.[2]

Change Variable	N=158 Partial Correlation
Health practices	0.046
Child rearing practices	-0.078
Birth control practices	0.186*
Automation	0.034
Political leadership	-0.078
Self change	0.054
Multiple correlation	R=0.223**

[1]High scores on EDP content scale indicate negative attitudes.

[2]Total sample refers to all respondents regardless of treatment.

*P < .05
**P < .01

partialled out, only one variable, namely, birth control practices makes most differential contribution to the multiple correlation. But the direction is reversed. In regard to the relationship between attitude scores on the HP scale and change orientation, the multiple correlation is noted to be significant at the .01 level of confidence (Table 91). No single variable contributes significantly to the multiple correlation. Moreover,

TABLE 91.--Partial and multiple correlations between change variables and content of attitude toward physically handicapped persons (HP scale)[1] for the total sample.[2]

Change Variable	N=158 Partial Correlation
Health practices	-0.058
Child rearing practices	0.077
Birth control practices	0.122
Automation	0.020
Political leadership	0.105
Self change	-0.137
Multiple correlation	R=0.229**

[1]High scores on HP content scale indicate negative attitudes.

[2]Total sample refers to all respondents regardless of treatment.

**P < .01

only two correlation coefficients between the HP criterion variable and self-change and health practices are negative, which are consistent with the hypothesis. Thus the hypothesis is not considered confirmed for the total sample.

Respondent Groups.--Significant multiple correlations are observed in the EDP and HP groups in respect to attitudes toward the disturbed and change variables. However, there is no consistency in the direction of relationship (Table 92). The partial correlation reveals that except

TABLE 92.--Partial and multiple correlations between change variables and content of attitudes toward emotionally disturbed persons (EDP scale)[1] for the three respondent groups.[2]

Change Variables	Partial Correlation		
	EDP N=52	HP N=44	Non-HP N=62
Health practices	0.048	0.070	0.049
Child rearing practices	-0.099	0.241	-0.164
Birth control practices	0.234	0.385*	-0.016
Automation	-0.009	0.076	-0.052
Political leadership	-0.221	-0.081	0.047
Self change	-0.009	-0.037	0.012
Multiple correlation	R=0.341*	R=0.426**	R=0.196

[1]High scores on EDP content scale indicate negative attitudes.

[2]EDP = Mothers of emotionally disturbed children.
HP = Mothers of physically handicapped children.
Non-HP = Mothers of non-handicapped (i.e., normal) children.

*P < .05
**P < .01

two variables, namely, health practices and birth control practices, most are associated with the criterion (EDP content scale) in the expected direction. This is not true in case of HP mothers where only two variables--political leadership and self change have negative coefficients.

Concerning the relationship between attitudes toward the handicapped and change variables, significant multiple correlations were obtained for all the three groups of mothers (Table 93). But a look at the partial correlations indicate that self change is the only variable contributing significantly to the multiple correlation in the EDP group. H:8a cannot be considered fully confirmed by the results.

H:8b: Mothers who score high on change orientation will also score high on progressive attitudes toward education and low on traditional attitudes toward education.

Total Sample.--As indicated by Table 94, a highly significant relationship ($P < .01$) exists between progressive attitudes toward education and change variables, although no individual change variable contributes significantly to this multiple correlation. In view of the meager size of negative partial correlation coefficients, the hypothesis can be considered supported for the total sample as far as progressive attitudes toward education are concerned. There is no statistically significant

TABLE 93.--Partial and multiple correlations between change variables and content of attitude toward physically handicapped persons (HP scale)[1] for the three respondent groups.[2]

Change Variables	Partial Correlation		
	EDP N=60	HP N=48	Non-HP N=69
Health practices	-0.118	0.005	-0.168
Child rearing practices	0.154	-0.012	0.120
Birth control practices	-0.118	0.299*	0.136
Automation	-0.222	0.064	0.138
Political leadership	-0.004	0.164	0.014
Self change	-0.328*	0.005	-0.092
Multiple correlation	R=0.395**	R=0.384*	R=0.271*

[1]High scores on HP content scale indicate negative attitudes.

[2]EDP = Mothers of emotionally disturbed children.
HP = Mothers of physically handicapped children.
Non-HP = Mothers of non-handicapped (i.e., normal) children.

*P < .05
**P < .01

TABLE 94.--Partial and multiple correlations between change variables and content of progressive-attitude-toward-education for the total sample.[1]

Change Variable	N=156 Partial Correlation
Health practices	0.137
Child rearing practices	0.116
Birth control practices	0.043
Automation	-0.040
Political leadership	-0.005
Self change	0.055
Multiple correlation	R=0.220**

[1]Total sample refers to all respondents regardless of treatment.

**P < .01

relationship between traditional attitudes and change orientation (Table 95).

Respondent Groups.--The multiple correlations between the change orientation variables and progressive attitudes toward education are found to be significant in all the three groups of mothers (Table 96). However, only in the control group, is the partial correlation pertinaing to health practices significant in the predicted direction. If the direction of partial correlation coefficients is considered, then H:8b can be considered only partially supported by the data for the respondent groups.

TABLE 95.--Partial and multiple correlations between change variables and content of traditional-attitude-toward-education for the total sample.[1]

Change Variable	N=156	Partial Correlation
Health practices		0.095
Child rearing practices		0.011
Birth control practices		-0.000
Automation		0.024
Political leadership		0.097
Self change		-0.030
Multiple correlation		R=0.145

[1]Total sample refers to all respondents regardless of treatment.

Table 97 does not indicate any relationship between the change orientation variables and traditional attitudes toward education in any of the three groups of mothers. H:8b in respect to traditional education is not supported.

H:9: Mothers of emotionally disturbed and physically handicapped children will have higher mean scores than will mothers of non-handicapped (i.e., normal) children on the following change orientation measures: (a) health practices, (b) child rearing practices, (c) birth control practices, (d) automation, and (e) self change.

TABLE 96.--Partial and multiple correlations between change variables and content of progressive-attitude-toward-education for the three respondent groups.[1]

Change Variable	Partial Correlation		
	EDP N=60	HP N=48	Non-HP N=69
Health practices	-0.020	0.122	0.313*
Child rearing practices	0.226	-0.196	0.168
Birth control practices	0.058	-0.110	-0.053
Automation	-0.118	0.142	-0.176
Political leadership	-0.155	0.166	0.034
Self change	-0.006	0.287	-0.123
Multiple correlation	R=0.318*	R=0.415**	R=0.370**

[1]EDP = Mothers of emotionally disturbed children.
HP = Mothers of physically handicapped children.
Non-HP = Mothers of non-handicapped (i.e., normal) children.

*P < .05
**P < .01

TABLE 97.--Partial and multiple correlations between change variables and content of traditional-attitude-toward-education for the three respondent groups.[1]

Change Variable	Partial Correlation		
	EDP N=60	HP N=48	Non-HP N=69
Health practices	0.226	-0.021	0.038
Child rearing practices	-0.084	0.099	-0.024
Birth control practices	0.227	0.222	-0.154
Automation	0.204	-0.010	-0.137
Political leadership	0.039	0.145	0.099
Self change	0.024	0.023	-0.136
Multiple correlation	R=0.327*	R=0.216	R=0.236

[1]EDP = Mothers of emotionally disturbed children.
HP = Mothers of physically handicapped children.
Non-HP = Mothers of non-handicapped (i.e., normal) children.

*P < .05

Comparisons of mean differences, standard deviations, and F statistics are presented in Tables 98 and 99. There is no statistically significant difference between the three groups in any of the five change orientation variables. This hypothesis is not considered to be confirmed.

Summary of Attitude and Change Orientation Variables

The use of multiple and partial correlations to test the hypotheses revealed very few statistically significant correlations. Moreover, the size of correlations were also very low.

Total Sample.--The combined change variables, and attitudes toward the disturbed and disabled were found to have significant relationships, although the direction of most partial correlation coefficients were inconsistent with the hypotheses. A significant but low multiple correlation was noted between the combined change orientation variables and progressive attitudes toward education. No such relationship was evident in the case of traditional attitudes toward education for the total sample.

Respondent Groups.--The multiple correlation between change orientation variables and attitudes toward emotionally disturbed persons was significant for EDP and HP mothers. The partial correlation revealed that high scores on the variable of birth control practices produced negative attitudes toward the emotionally

TABLE 98.--Comparison of mean differences and standard deviations in respect to five change orientation variables for the three respondent groups.[1]

Variable	Group[1]	N	Mean	Standard Deviation
Health practices	EDP	54	3.315	0.865
	HP	45	3.289	0.815
	Non-HP	67	3.492	0.704
	Total	166	3.379	0.790
Child rearing practices	EDP	55	3.145	0.803
	HP	45	3.822	0.747
	Non-HP	65	2.938	0.789
	Total	165	2.976	0.788
Birth control practices	EDP	55	1.800	0.911
	HP	45	1.956	0.903
	Non-HP	65	1.677	0.664
	Total	165	1.794	0.823
Automation	EDP	54	3.130	0.802
	HP	44	3.045	0.888
	Non-HP	65	3.185	0.726
	Total	163	3.129	0.795
Self change	EDP	55	2.327	0.883
	HP	45	2.378	0.806
	Non-HP	65	2.554	0.613
	Total	165	2.430	0.767

[1]EDP = Mothers of emotionally disturbed children.
HP = Mothers of physically handicapped children.
Non-HP = Mothers of non-handicapped (i.e., normal) children.

TABLE 99.--Analysis of variance of change orientation scores for the three respondent groups.

Variable	Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square	F	Sig. of F
Health practices	Between groups	1.451	2	0.726	1.164	0.32
	Within groups	101.639	163	0.623		
	Total	103.090	165			
Child rearing	Between groups	2.735	2	1.367	2.234	0.11
	Within groups	99.168	162	0.612		
	Total	101.903	164			
Birth control	Between groups	2.067	2	1.034	1.537	0.22
	Within groups	108.926	162	0.672		
	Total	110.993	164			
Automation	Between groups	0.508	2	0.254	0.399	0.68
	Within groups	101.786	160	0.636		
	Total	102.294	162			
Self change	Between groups	1.700	2	0.850	1.453	0.24
	Within groups	94.748	162	0.585		
	Total	96.448	164			

disturbed for mothers of handicapped children. Regarding attitudes toward handicapped persons, all the three respondent groups revealed significant correlation with change variables. Except for the EDP group, the direction of relationship did not corroborate the hypothesized relationships. Progressive attitudes toward education was significantly related to change orientation variables for all groups; but traditional attitudes correlated significantly with combined predictors only for the EDP group.

The F statistics for all the change orientation variables also indicated non-significant differences between the groups. Thus, most hypotheses pertaining to change orientation and attitude scores remained unconfirmed.

Hypotheses Related to General Differences Between Mothers of Disturbed, Handicapped and Non-Handicapped Children

H:10a: Mothers of non-handicapped (i.e., normal) children will tend to have more favorable attitudes toward physically handicapped than toward emotionally disturbed persons.

The hypothesis is confirmed in that control group mothers obtained significantly ($P < .01$) different scores on the EDP and HP scales. In other words, mothers of normal children had more positive attitudes toward the physically handicapped compared to emotionally disturbed persons (Table 100).

TABLE 100.--Means, standard deviations, and critical ratio of content scores on the EDP and HP scales for mothers of non-handicapped (i.e., normal) children.

Variable	N	Mean[1]	Standard Deviation	Standard Error of Difference	t
Content scores on the EDP scale	66	52.56	3.82	0.77	10.27**
Content scores on the HP scale	66	44.65	5.03		
Total	132				

[1]Low content scores on the EDP and HP scales indicate positive attitudes.

**P < .01

H:10b: Mothers of non-handicapped (i.e., normal) children will have less favorable attitudes toward physically handicapped persons than will the mothers of physically handicapped children.

This hypothesis is not confirmed as the difference in the means of HP content scores of the mothers of handicapped and normal children is statistically not significant (Table 101).

TABLE 101.--Means, standard deviations and critical ratio of HP content scores for mothers of physically handicapped and non-handicapped (i.e., normal) children.

Variable	Group[1]	N	Mean[2]	Standard Deviation	Standard Error of Difference	*t*
Content scores on the HP scale	HP	45	44.02	6.22	1.11	1.07
	Non-HP	66	44.65	5.03		
	Total	111				

[1]HP = Mothers of physically handicapped children.
Non-HP = Mothers of non-handicapped (i.e., normal) children.

[2]Low content scores on the HP scale indicate positive attitudes.

CHAPTER V

DISUCSSION, RECOMMENDATIONS, AND SUMMARY

This chapter presents an integration of findings and implications relevant to the accomplishment of the purposes of the study. Recommendations have been made for future research modifications or innovations emerging from these findings and implications. Thus, consistent with the objectives originally developed in Chapter I, the present chapter is divided into three major sections suggested by the chapter title.

Part I is devoted to a discussion of results obtained from testing of hypotheses pertaining to the total sample and the three groups of mothers.

Part II deals with recommendations for changes and additions in future studies based on discussion of theoretical and methodological issues concerning research design, sampling, instrumentation, and analyses procedures.

The final section, Part III, presents the concluding summary with a reflection on the primary purpose of the research in reference to the verification of the main hypotheses.

Part I: Discussion of Results

There were 26 hypotheses which were divided into four major categories pertaining to: (a) contact frequency, intensity, and content of attitude; (b) attitude-value interactions; (c) change orientation and attitude; and (d) general differences in attitudes of mothers of emotionally disturbed, physically handicapped, and non-handicapped children. Each major category had several hypotheses and sub-hypotheses with a view to predicting relationships and making inferences about the total sample and the groups of respondents. Since all mothers were given the same set of instruments, it was considered useful to determine differences and relationships between selected criteria and predictors for the entire sample regardless of treatment. In accordance with the main purpose of the study, however, the three groups of mothers were compared for relevant dependent and independent variables.

Hypotheses Relating to Contact Frequency and Intensity

The main hypothesis in this section was that higher frequency of contact with the disturbed and the disabled produced greater intensity of attitude irrespective of the attitude content. The intensity of attitude toward emotionally disturbed persons in the total sample was significantly different in mothers having high and low frequencies of contact with the disturbed (Table 13).

But contrary to expectation, intensity of attitude was greater in mothers who had less frequent contact. Since mothers of emotionally disturbed children have, apparently, most frequent contact with disturbed persons, mean intensity scores of the three groups of mothers were analyzed. Somewhat consistent with the above results obtained for the total sample, the EDP group did not score highest on the intensity statements of the EDP scale (Tables 16-18). However, these mothers had higher scores than mothers of handicapped children. It may be inferred that personal contact provides an opportunity to perceive both positive and negative aspects of the social object resulting in less intense attitudes. This interpretation is supported by the fact that mothers of normal children who did not have close personal contact with emotionally disturbed persons indicated greatest intensity of attitude.

Before arriving at a definite conclusion in this regard, the correlational data should also be examined. There was no significant correlation between contact with emotionally disturbed persons and intensity of attitude toward them (Table 15). This would suggest that intensity of attitude is not entirely a function of frequency of contact, rather it may be related to a number of related factors like nature of contact, content, and function of attitudes for an individual or a group.

As for intensity of attitude toward physically handicapped persons, no significant difference was found between high and low frequencies of contact (Table 20). However, the low contact group had a higher mean score on the HP intensity scale than the high contact group; and the mean difference was significant at the .10 level of confidence. Similar to the above finding, the Non-HP group had the highest intensity score, while the HP group which had the most contact with handicapped persons scored the lowest (Tables 21-23). The correlation coefficient of -0.22 between contact and intensity on the HP scale was statistically significant for the total sample (Table 15). Interestingly enough, contact with physically handicapped persons was also found to have significant negative correlation with intensity of attitude toward the emotionally disturbed. This may be a case of response generalization.

The findings, therefore, support the earlier interpretation that contact exposes a person to various aspects of a social situation so that he becomes more flexible and maintains a less intense attitude toward that social object.

Whether or not contact with education produced difference in intensity of attitude toward education was tested with another set of hypotheses for both the total sample and the three groups of mothers. Neither the F statistics (Tables 24-31), nor the correlation

coefficients (Table 15) were found to be statistically significant for either progressive or traditional attitudes toward education. It is important to note that unlike the intensity scores on the EDP and HP scales, high frequency of contact with education did not result in lower intensity of attitude. A possible explanation is that the nature of the attitude object and its functional importance to the individual are significant factors in respect to attitude intensity. It may be that education was not considered a meaningful variable by the subjects selected for the study. Perhaps, this is the reason why no difference was found in the EDP, HP, and normal mothers on the intensity items of the Education Scale.

Contact Variables and Content of Attitude

The rationale for hypotheses under this category has been presented in Chapter III. It specifies that high frequency of contact with a social object is associated with favorableness of attitude if, (a) there are other rewarding activities to engage in, (b) the contact was enjoyable, and (c) the interaction could be easily avoided. The hypotheses relating to the first condition, namely, alternative to contact could not be tested because of the very small number of responses. The basic assumption is that amount of contact with emotionally disturbed and physically handicapped alone does not

produce favorable attitudes. Rather the attitudes are dependent upon the positive evaluation of the contact and the possibility of avoidance of such contact.

The multiple correlation between the combined contact variables (predictors) and attitudes toward emotionally disturbed persons (criterion) was highly significant for the total sample. The partial correlations indicated that amount and enjoyment of contact were significant contributors to this multiple correlation. Although the size of the multiple correlation coefficient (0.497) may be given some consideration, the coefficients obtained for significant partial correlations were too small to permit generalizations with any certainty (Table 32). It must be remembered, however, that the sample size was not large, and this might have been responsible for the low amount of correlation.

Contact with emotionally disturbed persons was also related to favorable attitudes toward physically handicapped persons. In this case, however, enjoyment of contact was not found to have significant partial correlation; instead, amount of contact and avoidance of contact had a significant association with the criterion (Table 33).

When the groups were considered separately, amount and enjoyment of contact with the emotionally disturbed were related to favorable attitudes toward handicapped persons for the EDP group only. In this case, size of

the multiple correlation was .53 which was significant at the .01 level of confidence (Table 34). The lack of such relationships in the HP and control groups could be explained as due to inadequate number of respondents in the two samples. Only 17 mothers in the HP group and 28 mothers in the Non-HP group had had contact with emotionally disturbed persons.

Although none of the HP contact variables, when considered individually, contributed significantly, the multiple correlation between combined predictors and favorable attitudes toward handicapped persons was highly significant for the total sample (Table 38). The data, therefore, suggest that favorable attitudes toward the handicapped may be predicted if high frequency of contact is enjoyable and provides an opportunity to avoid the contact with the handicapped. Similar results were obtained for the mothers of physically handicapped and emotionally disturbed children (Table 40).

As mentioned before, the partial and multiple correlation coefficients presented in Table 33 indicated that contact with the emotionally disturbed was able to produce favorable attitudes toward handicapped persons. But the predictors concerning contact with the handicapped did not correlate significantly with attitudes toward emotionally disturbed persons (Table 39). It seems reasonable to assume that emotional disturbance was considered less desirable than physical handicap

by the respondents. As a consequence, contact with handicapped persons did not result in favorable attitudes toward emotionally disturbed persons. Table 41 also revealed that contact with physically handicapped persons was not related to attitudes toward emotionally disturbed persons in any group of mothers, unlike the relationship between EDP contact and HP scale observed in the mothers of emotionally disturbed children (Table 34). Again, this would suggest that contact with the handicapped influences attitudes only in respect to handicapped persons.

In conformity with the hypothesis, mothers of the emotionally disturbed children expressed more favorable attitudes toward emotionally disturbed persons than did the mothers of other two groups (Tables 35-37). Similarly, attitudes toward physically handicapped persons were observed to be most favorable among the mothers of handicapped children. Apparently, close personal contact as well as the frequency of contact are responsible for this difference in attitudinal reactions of the mothers (Tables 42-44).

However, the nature of attitudes expressed by the mothers of normal children might suggest another possible reason for this finding. In case of attitudes toward emotionally disturbed persons, there was no significant difference in mean EDP scores of HP and Non-HP mothers which were significantly lower than the attitude scores of EDP mothers. Also, no significant difference was

found in mean HP scores of HP and Non-HP mothers, although they differed significantly with the EDP mothers. In other words, there was no difference between mothers of handicapped and normal children in respect to attitudes toward emotionally disturbed or physically handicapped persons. Perhaps, cultural values, prejudice and stereotypes about mental illness versus physical handicap are responsible for differential attitudinal reactions. Physical handicap is generally viewed with sympathy and consideration, whereas emotional disturbance is regarded by many as the responsibility of the victim. The mentally ill is perceived as a "deviant" or "transgressor" posing a threat to the society which places great value on independence, responsibility and achievement. On the other hand, a disabled person may be perceived as an unfortunate victim of nature or circumstances beyond his control. This is why perhaps, regardless of personal contact, the mothers in the control group expressed more favorable attitudes toward physically handicapped persons than toward the emotionally disturbed.

Nevertheless, this interpretation does not explain why EDP mothers had significantly higher scores on the EDP scale and significantly lower scores on the HP scale, if personal contact was not an important determining factor. It has already been suggested by correlational analyses that enjoyment and ease of avoidance of contact are probable factors associated with

favorableness of attitude toward the disturbed or the disabled. An additional factor that appears plausible in case of EDP mothers is personal commitment to their emotionally disturbed children. Parents of disturbed children are well aware of the general belief--professional as well as lay--that they are the prime source of their children's difficulties; and explicitly or implicitly they accept this responsibility. There may not be any change in overt parental behavior toward the children, but the possibility of favorable change at least in the cognitive component of the attitude still remains. Even if the mothers of emotionally disturbed children did not enjoy this contact and unquestionably the avoidance of the contact was not easy, they expressed favorable attitudes toward emotionally disturbed persons because of personal commitment based on cultural expectations.

The hypotheses concerning educational contact and progressive or traditional attitudes toward education were not confirmed for the total sample. The multiple and partial correlations presented in Tables 45 and 46 were not found to be significant. However, when the three groups of mothers were compared, educational contact variables did yield significant multiple correlation with progressive attitudes toward education for the HP and the Non-HP groups, although the directions of partial correlations were not consistent (Table 47). As shown in Table 48, the combined educational contact variables

were significantly related to traditional attitudes toward education for EDP and HP groups of mothers. But the partial correlations were not in the predicted direction. For example, alternatives to education produced significant positive traditional attitudes toward education, contrary to the hypothesis. Moreover, the size of significant multiple and partial correlation coefficients were very low both for the total sample and the respondent groups. Thus, it is extremely difficult to interpret the data with any definiteness. At best, the results suggest some sort of relationship between contact with education and progressive and traditional attitudes toward education. As to the precise nature of relationship, further investigation on different samples is warranted.

Value Variables in Relation to Attitudes

As noted earlier, personal contact alone does not seem to account for attitudes toward the disturbed and the disabled as well as toward education. Interpersonal values have been suggested by several authors in the field (see the discussion on hypotheses derivation) as being instrumental in the maintenance and sustenance of attitudes toward social objects. With the help of a number of hypotheses, attempt was made to determine the role of various kinds of values in attitudes of mothers selected for the study.

The first hypothesis was concerned with Leadership value defined as need for power and control over others. Theoretically, it is appropriate to assume that those who express the need for power and control over others will tend to reject the emotionally disturbed and physically handicapped persons. However, the results of the study did not support this hypothesis. A comparison of high and low scoring mothers on Leadership value scale revealed that emotionally disturbed persons were acceptable to the high rather than the low scoring group (Tables 49 and 50). The relationship between high Leadership scores and favorable attitudes toward the disturbed was also found to be significant for the mothers of physically handicapped and normal children (Table 53). A possible explanation of this apparently contradictory finding may be located in the manifestations of the need for power and control over others. Generally speaking, favorable attitudes toward emotionally disturbed persons are held by professionals and responsible citizens who are in positions of authority or leadership. Hence, even though the emotionally disturbed are evaluated in terms of comparative values, favorable attitudes may be shown toward them because expression of such attitudes would be congruent with the attitudes of experts and civic leaders. It is not uncommon to find examples from social life where power and control over others are achieved by accepting new ideas if the social climate so warrants.

The above interpretation must be considered as tentative, since no significant difference was found between high and low scoring mothers on Leadership value regarding attitudes toward physically handicapped persons (Tables 51 and 52). Furthermore, the three groups of mothers did not differ significantly in respect to Leadership value (Tables 69 and 70), nor was the correlation between Leadership and HP scale significant. Attitudes toward education, either progressive or traditional did not indicate any relationship to Leadership value.

The value of Recognition which also included achievement orientation was investigated by another set of hypotheses. It may be recalled that the distinguishing features of this value is the tendency to attract favorable attention and to receive admiration from others. In essence, then, Recognition value is related to comparative orientation as opposed to asset orientation measured by Benevolence value. It was hypothesized that mothers scoring high on Recognition value would tend to express unfavorable attitudes toward emotionally disturbed and physically handicapped persons. This hypothesis was not confirmed (Tables 61-64) for the total sample. But significant negative correlation was found between Recognition value and attitudes toward emotionally disturbed persons among the mothers of handicapped children (Table 53). Considering the small size of this correlation and the fact that no such relationship existed in

respect to physically handicapped persons (Table 54), no definite conclusion can be made for this data.

When the three respondent groups were compared for Recognition scores, a significant difference between the groups was observed (Tables 71-73). The HP group had the least amount of Recognition value, while there was no significant difference between the EDP and Non-HP groups. Two possible explanations may be offered to account for this result. Contact with physically handicapped children might have changed the value orientation of the mothers, although they might have held high Recognition value in the beginning. It is also possible that mothers of physically handicapped children selected for the study were low in Recognition value initially and that later contact with disabled children had no effect whatever on their value orientation. A design making comparison of groups at various stages of exposure would have provided more definite answers.

High scores on Recognition value were also thought to be related to low scores on progressive attitudes toward education and to high scores on traditional attitudes toward education. No such relationship existed either in the total sample or in the three groups of mothers (Tables 59-60; 65-68).

The third value variable investigated in the present research was Benevolence. This value refers to the need to help others, and to be generous. When the total

sample was divided into high and low scoring groups on this scale, comparison of their attitudes toward the disturbed and the handicapped did not yield any significant difference (Tables 74-77). The value of Benevolence was also unable to differentiate the three groups of mothers significantly (Tables 82-83). The only significant relationship between Benevolence and HP scale was observed for the mothers of handicapped children. However, the correlation coefficient of .36 is too low to warrant any serious consideration.

Unlike the previous cases where Leadership and Recognition values failed to differentiate the groups on the Education scale, some relationship was evident between Benevolence value and Traditional attitudes toward education for the control group and the total sample (Table 60). But contrary to the hypothesis, the correlation was positive. It is extremely difficult to interpret the results since the coefficients were well below .30.

The two other values investigated were Support and Conformity. The need to be treated sympathetically by other people is measured by the value of Support. The mothers of emotionally disturbed children scored significantly higher than did the mothers of handicapped children. This may indicate that mothers of handicapped do not need understanding and encouragement from other people as do the mothers of emotionally disturbed children. The prevalent attitude of the society placing responsibility on

mothers of disturbed children may be instrumental in the maintenance of Support value. This is not true in case of mothers of handicapped children who receive relatively preferential treatment by the people, in general. Nonetheless, Support value did not correlate significantly with any of the attitude scales used in this study.

Conformity value, which signified the need for social approval, was found to differentiate significantly the three groups of mothers (Tables 87-89). But the differences were not in the direction of the hypothesis. It was predicted that mothers of emotionally disturbed and physically handicapped children would express low Conformity value in comparison to the scores of the control group. The result, however, indicated that the HP group had the highest Conformity value than those of EDP and Non-HP groups. Besides, there was no significant difference between EDP and Non-HP groups on this value scale. The inconsistency in the results is further evidenced by the fact that the EDP group showed a slight positive correlation with attitudes toward the disturbed and the handicapped (Tables 53 and 54). As expected, Conformity was observed to be negatively correlated with progressive attitudes toward education and positively related to traditional attitudes toward education. However, the correlation coefficients were too low to be considered meaningful.

Change Variables as Related to Attitude Scores

Acceptance of emotionally disturbed persons and the handicapped appears to bear a salient relationship to change orientation variables (Felty, 1965; Friesen, 1966). High scores on change orientation items indicated the presence of favorable disposition toward new ideas and willingness to depart from the status quo. All hypotheses under this category were subjected to analyses of variance and correlational analyses. The six change variables selected for analyses were: health practices, child rearing practices, birth control practices, automation, political leadership, and self change.

While several significant multiple and partial correlations were obtained, low amount and inconsistent direction of correlation coefficients render the interpretation of results confounded. For the total sample, significant multiple correlations were found between combined change variables and attitudes toward the disturbed and the disabled (Tables 90 and 91). Birth control practices was the only variable which made significant differential contribution to the multiple correlation in respect to attitudes toward emotionally disturbed persons for the total sample as well as for the HP group. But the direction of these partial correlations were negative predicting unfavorable attitudes toward the emotionally disturbed for those who were change oriented on items referring

to birth control practices. A significant but small proportion of the variance of the HP scores can be explained through reference to self change (r^2 = .11) for the EDP group (Table 93).

Progressive attitudes toward education may be considered to have some significant relationship with combined change variables (Tables 94 and 96). The EDP group was the only group to manifest significant multiple correlation with traditional attitudes toward education (Table 97). Items concerning health practices, when partialled out, made a significant positive contribution to the multiple correlation with progressive educational attitudes in the control group (Table 96).

Nothwithstanding the above findings, the mean differences of the change orientation scores were statistically non-significant for the three groups of mothers. It may be inferred that possibly some kind of relationship exists between attitudes and change orientation variables, but the relationship is not very clear to account for the differential attitudinal reactions of the three groups of respondents.

General Differences in the Attitudes of the Respondent Groups

The hypotheses under this category are based on the general principle of cultural relativism reflecting cultural values and popular stereotypes about emotionally

disturbed and physically handicapped persons. Physically handicapped persons receive same treatment as given to other minority groups like Negroes or Jews (see Review of Literature). However, when the two minority groups are compared, the physically handicapped group seems to be preferred over the mentally ill. An empirical verification of this notion was attempted by comparing the attitudes of mothers of normal children toward emotional disturbance and physical handicap. The results reported in Table 100 confirm the hypothesis. The prejudice against the emotionally disturbed is indeed greater than that found for handicapped persons. It would appear that efforts of the professionals and civic leaders in changing public apathy with a view to producing greater acceptance of the disturbed have failed to do the job.

Although more favorable attitudes are shown toward the disabled by the control group, the amount of positive attitudes should not be as large as the attitudes of the mothers of handicapped children. This hypothesis is based on the assumption that personal contact produces much greater change in attitudes. Since mothers of handicapped children had the closest personal contact, it was expected that they would express more favorable attitudes than the mothers of normal children. The results, however, do not confirm the hypothesis (Table 101). The amount and direction of attitudes were not significantly different for the two groups of mothers. This

would seem to cast some doubts upon the assumption that personal contact alone is an important factor leading to favorable attitudes toward the handicapped. Perhaps, the nature of personal contact, especially enjoyment of contact, is a more significant factor.

Another possible explanation refers to the inadequacy of the attitude scales used in the study. The attitude instruments may be measuring a limited portion of the attitude universe related to the disturbed or handicapped persons. The items on these scales are probably reflecting only stereotyped statements about handicapped or disturbed persons, so that an individual with a direct and prolonged personal contact might appear less accepting on a "stereotype" level than those whose relationships are less frequent and perhaps more superficial. This explanation may also be applied to account for the failure to confirm several other hypotheses pertaining to contact and attitude scores discussed elsewhere.

Part II: Theoretical and Methodological Issues, and Recommendations

The theoretical considerations and methodological problems have been discussed at some length in earlier sections of this report. In this section, an attempt will be made to critically examine the theoretical models and the methodological strategies employed in the study in light of verification of the hypotheses.

Theoretical Issues

In general, the theoretical framework of the present research may be regarded as social-psychological, inasmuch as the explanatory concepts used were primarily from the field of social psychology. The principal concern of the present research is the determination of differential attitudinal reactions as a function of contact with the emotionally disturbed and physically handicapped persons. If contact is an important determining factor, can it also account for content and intensity of attitude toward education as a result of educational contact? Other important questions investigated in the study related to the role of values. What kinds of value orientations can predict attitudes toward specified social objects? In what directions the relationships between attitudes and values can be predicted? These were the major theoretically dictated questions.

Several studies were discussed in the Review of Literature (Chapter III) which suggested the importance of personal contact in changing attitudes and reducing prejudice (e.g., Allport, 1958; Jacobson, et al., 1960; Watson, 1950). More recently, the role of personal contact was investigated in respect to physical disability on cross-cultural samples (Felty, 1965; Friesen, 1966). Friesen (1966) who compared samples from Colombia, Peru and Kansas reported that ". . . there was a significant relationship between contact and HP scores . . ." (p.

254). On the other hand, Felty (1965) found a significant negative correlation between contact frequency and attitude.

The results obtained from hypotheses testing do provide some empirical support in that mothers of emotionally disturbed and mothers of physically handicapped children exhibited more favorable attitudes toward handicapped persons. But somewhat surprisingly, no significant difference was found between mothers of handicapped and normal children in regard to attitudes toward emotionally disturbed or physically handicapped persons. This raises the question whether personal contact in itself is a major factor. It was suggested earlier during the discussion of results that cultural values reflecting common stereotypes and prejudices are perhaps equally important factors, if not more. The fact that mothers of normal children expressed more positive attitudes toward the physically handicapped than toward emotionally disturbed persons may be considered a further proof of the ubiquitous role of popular stereotypes.

As for the nature of personal contact, Zetterberg (1963) has suggested that volitional nature of contact is crucial. Also, in keeping with the theoretical position of Zetterberg, enjoyment of contact was tested for predictive relationship. Apparently, there was little possibility of avoidance of contact in case of mothers of emotionally disturbed or physically handicapped

children. However, their responses on these variables were procured on the Personal Questionnaires. The findings, in this connection, are quite inconsistent as discussed in the previous section. Enjoyment, frequency, and alternatives to contact with education also failed to provide any consistent pattern in order to predict either progressive or traditional attitudes toward education. For the sake of comparison, Felty's (1965) observations on an international sample (San Jose, Costa Rica) may be mentioned here. In his study, contact frequency alone was not found to be a significant determinant of attitudes; rather, ease of avoidance of contact and availability of other rewards were significantly associated with positive attitudes toward the disabled. Although it cannot be concluded that these contact variables are irrelevant for predicting attitudes, the results of the present study do point out the necessity of a more rigorous test of the theoretical propositions in question.

A theoretical relationship between attitude intensity and amount of social contact has been postulated by Foa (1950), and Guttman and Foa (1951) whereby intensity increased as a result of contact. According to Rosenberg (1960), intensity is an important action predictor. Zetterberg (1963) suggests that attitude intensity on the favorable-unfavorable continuum is related to perceived freedom or constraint of social interaction and whether this interaction is perceived as rewarding. The

results of the study do not substantiate the above-mentioned relationship between attitude intensity and personal contact. In fact, a new direction in the interpretation of this relationship is suggested by the data. The variable in question did differentiate significantly the three groups of mothers, as well as the total sample which was divided into high and low frequencies of contact. But more frequent contact reduced the intensity of attitudes toward emotionally disturbed or physically handicapped persons. In one of his respondent groups, Friesen (1966, p. 225) obtained a significant negative relationship between contact and intensity of attitudes toward disabled persons. It is possible that intimate and frequent personal interaction furnish a more comprehensive perspective about the social object so that the individual no longer responds on the level of stereotype.

Insofar as intensity of attitudes toward education is concerned, no significant relationship with educational contact was observed. Thus, even a negative relationship between intensity and contact may not exist for all attitude objects. The results of the present research give a strong impression that attitude intensity is related to the significance assigned to the specified social object by the individual.

In recent years many psychological research studies seem to emphasize the importance of values in explaining human behavior. Both psychological and sociological

approaches have theorized that values are the best predictors of human behavior (e.g., Katz, 1960; Kluckhohn, 1951; Rosenberg, 1960). A specific proposal for studying attitudes toward physical disability has been made by Wright (1960) in which values are considered to have either (a) comparative or (b) asset orientations. The same theoretical model was applied in this study for determining the relationships between values and attitudes toward emotionally disturbed persons. The values of Leadership (power needs) and Recognition (needs for attention and admiration) were considered to be measures of "comparative" value system. In contrast, Benevolence (generosity needs) was conceptualized as an "asset" value system. Empirical confirmation of the negative relationship between power needs and attitudes toward physically disabled persons has been reported by Felty (1965), Friesen (1966), and Whiteman and Lukoff (1962). While the results of the present investigation do indicate the existence of some relationship between Leadership value and attitudes, they suggest a negative rather than positive relationship. But even the negative relationship was not found for all groups analyzed in the study. Similarly, Recognition value failed to indicate any consistent relationship with different attitude objects studied. This was also true in case of Benevolence, Support, and Conformity.

Some possible tentative explanations have been offered by the researcher in Chapter III when discussing the results of specific value hypotheses. However, from a theoretical standpoint, two pertinent questions can be raised. Specific values such as Leadership, Recognition, and Benevolence may not be representative of the hypothesized dichotomy between comparative and asset orientations. In other words, these values may not be crucial to the maintenance of favorable or unfavorable attitudes toward emotional disturbance, physical disability, or education.

The second question is concerned with the conceptualization of dimensions of values. As described elsewhere, the six values used in the study were measured by Gordon's Survey of Interpersonal Values. Although the scale makes provision for the measurement of intensity of values, other value dimensions like generality, specificity, and modality (suggested by Kluckhohn, 1951) were not considered. Whether or not these dimensions are relevant and more successful in predicting attitudes apparently depend upon further empirical proofs.

Concerning attitudes toward education, the theoretical framework was provided by Kerlinger (1956). He postulated that the progressive-traditional dimension of attitudes toward education generalizes to other relevant attitudes. In view of the non-confirmation of many hypotheses regarding education in this research, it is

clear that the issues are far more complicated and that they should be re-examined in the light of the theoretical questions raised in respect to values.

Methodological Issues

The basic methodological issue relates to the suitability of the research design adopted in the study. As discussed in an earlier section (see Chapter III--Limitations of the Study), a cross-sectional analysis comparing exposed and unexposed groups only is not considered to be a strong design. Hence a longitudinal research comparing groups at different stages of exposure with attitude objects, and using multivariate analysis procedure might have yielded more generalizable conclusions.

Another important problem is concerned with the selection of instruments and their psychometric properties. The three attitude scales employed in the study were: the Handicapped Persons Scale, the Emotionally Disturbed Persons Scale, and the Education Scale. The six values were measured by Gordon's Survey of Interpersonal Values which had six value sub-scales. A detailed discussion of the rationale underlying the selection of these scales has been presented in Chapter III under the heading: Description of Instruments.

Since not many hypotheses have been confirmed in the present research it is necessary to examine further the problems associated with validity and reliability of

the scales. Except the EDP scale, all the scales have been used in many other investigations, and the reliability and validity data warranted the use of these instruments. The two recent doctoral dissertations (Felty, 1965; Friesen, 1966) using the same scales (except the EDP scale) on cross-cultural samples have raised the question of concept equivalence. That is, the attitudes as abstracted from the items may not have the same psychological implications for different groups of respondents. Although this problem has greater significance in cross-cultural comparisons, it may be argued that the inconsistent attitudinal reactions of the subjects in the present study resulted from a lack of concept equivalence on account of differential group membership.

With this end in view, Felty (1965) and Friesen (1966) employed the modified version of Guttman scaling procedure using the Lingoes Multiple Scalogram Analysis. It may be recalled that in the standard Guttman technique, the content component of the attitude is scaled first, and then the total content scores are plotted against total intensity scores for each respondent. Usually, the content scores are plotted on the abscissa and intensity scores on the ordinate. When the two are plotted together, a typical graphic presentation shows that intensity forms a U-shaped or J-shaped curve in relation to the content dimension. The true point of division between positive and negative responses is generally found

to be the low point of this curve. The Lingoes procedure, used in the two dissertations mentioned above, does not attempt to scale all of the items together, unlike the Guttman procedure. This procedure is designed to extract all possible attitude dimensions separately that are latent in the data.

It is significant to note that both Felty (1965) and Friesen (1966) failed to obtain sufficient items which formed scales meeting Guttman scale requirements. Also, low Guttman reproducibility coefficients were obtained for the attitude scale suggesting low reliabilities. Although methodologically, Guttman's pioneer scaling method is very sound, the assumption that attitudes are unidimensional can be seriously questioned. The Lingoes procedure also makes the same assumptions regarding unidimensionality of attitudes, although this technique is an imporvement over the previous one in that it permits multi-unidimensional analysis. These techniques, however, do not reveal multidimensional nature of attitudes.

Since these techniques for which computer programs were available at Michigan State University did not yield meaningful scales, they were not used for analyzing the data in the present research. A further revision of the Lingoes program attempts to provide both the much needed multidimensional analysis and the multi-unidimensional analysis. This new computer program, known as MSA-I

(Lingoes, 1965) is scheduled to become operation at Michigan State University in the Spring of 1966.

In respect to the value scale, the factor analytic data obtained by Felty (1965) revealed that "the forced-choice format of the value scale produced factors which reflected the format rather than response patterns" (p. 167). He recommended that forced-choice technique be changed in conformity with attitude scales so that all scales could be submitted to Guttman-Lingoes Multi-dimensional Scalogram Analysis. However, it is difficult to ascertain the usefulness of such a procedure for Gordon's value scale in the absence of empirical data.

Apart from the issues involving scaling procedures, a major problem is the actual content of attitude items. It is likely that the attitude instruments used in the study may be measuring a limited portion of the attitude universe in regard to emotional disturbance, physical disability, and education. For the purposes of the present investigation, attitude was defined as a delimited totality of behavior with respect to a given social object (Guttman, 1950). Clearly, then, the items should be as representative of this defined universe of attitude as possible. Although it becomes a logical issue as to whether the construct of attitude under consideration has been properly sampled or not, it is always advisable to broaden the range of items to ensure representativeness.

Two other methodological issues relating to sampling of the respondents and test administration procedures need brief comment. Considering the nature of the research population, the total number of respondents in the control group and the two experimental groups may be regarded satisfactory. However, the number of cases for several categories of variables measured in the study were quite low (see Chapter IV). The size of the samples, therefore, cannot be considered large enough in order that the non-confirmed hypotheses could be rejected or reformulated for future research.

All the questionnaires in this research were self-administered by the subjects. Since a period of about three hours was required to fill out the entire set of questionnaires, it is possible that some mothers completed the questionnaires in one sitting while others spaced the task into several sittings extended over weeks. For those who finished the task in a single sitting, the fatigue effect might have influenced the responses on the instruments taken toward the end. It would have been desirable to collect the data through group administration of the instruments distributed over three or more testing sessions. However, this ideal testing condition was not accomplished in the present investigation for the practical reason of non-availability of the subjects for group testing sessions.

Recommendations

The foregoing discussion of the relevant theoretical and methodological issues serve the basis on which recommendations for future research in the area have been made in this section.

Research Design and Sampling.--It is strongly recommended that a research design permitting comparison of groups at various stages of exposure to emotionally disturbed and physically handicapped persons be developed for evaluating the precise contribution of personal contact in effecting changes in attitudes and values. In other words, a longitudinal research should be planned which would indicate not only the changes in attitude and values as a result of increasing exposure to attitude objects, but would also reveal the nature of attitude-value interactions at various points in time. Furthermore, this design would allow the determination of the stability of attitude change over a period of time.

Regarding sampling, it may be suggested that in order to procure sufficient number of respondents and also to ensure representativeness of the research population, several institutions providing professional services to the mentally ill and the physically disabled should be selected. Of course, the different institutions should be similar in major demographic characteristics. In this manner, some "randomization" of the

samples is possible even after controlling extraneous variables.

Selection and Analysis of Scales.--The attitude scales used in the present investigation had essentially the Likert's (1932) "summated rating" format. One difficulty with this technique is that there is no means by which the four different scale values obtained for a given item can be equated with other items in the scale. In the preceding section, various improved techniques for analyzing the content and intensity of the attitude items have been discussed. It was also pointed that the items should represent the entire universe of content in respect to the attitude object. But this need not be homogeneous or unidimensional. The universe of content in regard to a given social object should be sampled in terms of component areas.

Guttman (1959, 1961) has developed a highly systematic model for the selection and scaling of attitude items within the framework of component approach. This model, known as 'facet theory,' attempts to substructure an attitude universe into logically established components.[1] The sampling of items is done within each of the derived components. It is claimed that the relationships between various components of the attitude universe

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[1]A detailed discussion of Guttman's facet theory and its implications for studying attitudes toward the disabled can be found in Felty's dissertation (1965, pp. 173-180).

can also be predicted with the help of this model (Foa, 1958, 1963; Guttman, 1959, 1961). Guttman (1959) applied this model to analyze a research conducted by Bastide and van den Berghe (1957). He suggests that there are three facets (i.e., factors) insofar as intergroup behavior is concerned: (a) Subject's Behavior which includes belief and overt action at rational and affective levels expressed either symbolically or operationally; (b) Referent in respect to subject's group or subject himself; and (c) Referent's Intergroup Behavior which may be comparative or interactive.

However, the problem of item selection within each component appears to be difficult to resolve. Using the basic facet design, Dr. John E. Jordan of Michigan State University and Dr. Louis Guttman of the Institute of Applied Social Research have devised a mapping sentence (see Figure 1) with a view to constructing an attitude-toward-education-scale. A mapping sentence for the facet analysis has been proposed for measuring cross-cultural attitudes toward education to be used in the larger international study of attitudes toward the disabled currently underway at Michigan State University under the direction of Dr. John Jordan (see Figure 2).

It can be seen clearly that future research in the field would benefit a great deal by using the facet model which has many theoretical as well as practical implications. Precisely, the problems related to the

A MAPPING SENTENCE FOR THE FACET ANALYSIS OF ATTITUDES TOWARD EDUCATION

Respondent (X)'s attitudes toward having

(A) Supplier
- a_1 parents
- a_2 local government
- a_3 national government
- a_4 private agencies
- a_5 international agencies
- a_6 students

SUPPLY education at

(B) Schooling Level
- b_1 elementary
- b_2 secondary
- b_3 post-secondary
- b_4 university
- b_5 post-graduate

SCHOOLING LEVEL for

(C) Recipients
- c_1 unspecified
- c_2 wealthy
- c_3 poor
- c_4 socially maladjusted
- c_5 physically disabled
- c_6 mentally retarded
- c_7 gifted
- c_8 ethnic

(D) Unit Size Type
- d_1 individuals
- d_2 groups

employing methods DIRECTED by

(E) Direction
- e_1 teachers
- e_2 students
- e_3 parents

using tools from

(F) Sources
- f_1 traditional
- f_2 new

SOURCES which are LOCATED

(G) Location
- g_1 inside
- g_2 outside
- g_3 in and out of

the classroom of

(H) Content
- h_1 intellectual
- h_2 social

CONTENT for the PURPOSE of

(I) Purpose
- i_1 advancement
- i_2 prevention

toward the GOAL of

(J) Goals
- j_1 self-advancement
- j_2 vocational development
- j_3 national development
- j_4 social behavior

having →

(K) Valence
- k_1 favorable
- k_2 neutral
- k_3 unfavorable

VALENCE with PRIORITY rank

(L) Priority
- l_1 high
- l_2 low

within each facet.

Supplier (A) / of schooling LEVEL (B) / for RECIPIENT (C) / of UNIT SIZE TYPE (D) / of method DIRECTION (E) / of SOURCE (F) / LOCATED in (G) / of CONTENT (H) / for PURPOSE (I) / toward GOALD (J) → [attitudes toward education] → VALENCE (K) / with PRIORITY (L).

X A B C D E F G H I J → K L

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A MAPPING SENTENCE FOR THE FACET ANALYSIS OF A RESEARCH PROJECT ON CROSS CULTURAL ATTITUDES TOWARD EDUCATION

The research project is designed to study RESPONDENT { x_1 himself; x_2 according to his interest group } in his

(Y) **Nation**
- y_1 Latin Amer. Country(ies)
- y_2 African Country(ies)
- y_3 Asian Country(ies)
- y_4 Yugoslavia
- y_5 Israel
- y_6 U.S.

setting according to his [attitudes toward having

(A) **Supplier**
- a_1 parents
- a_2 local government
- a_3 national government
- a_4 private agencies
- a_5 international agencies
- a_6 students

SUPPLY education at

(B) **Schooling Level**
- b_1 elementary
- b_2 secondary
- b_3 post-secondary
- b_4 university
- b_5 post-graduate

SCHOOLING LEVEL for

(C) **Recipients**
- c_1 unspecified
- c_2 wealthy
- c_3 poor
- c_4 socially maladjusted
- c_5 physically disabled
- c_6 mentally retarded
- c_7 gifted
- c_8 ethnic

(D) **Unit Size Type** { d_1 individuals; d_2 groups } employing methods DIRECTED by

(E) **Direction** { e_1 teachers; e_2 students; e_3 parents } using tools from

(F) **Sources** { f_1 traditional; f_2 new }

SOURCES which are LOCATED

(G) **Location** { g_1 inside; g_2 outside; g_3 in and out of } the classroom of

(H) **Content** { h_1 intellectual; h_2 social } CONTENT for the PURPOSE of

(I) **Purpose** { i_1 advancement; i_2 prevention } toward the GOAL of

(J) **Goals**
- j_1 self-advancement
- j_2 vocational development
- j_3 national development
- j_4 social behavior

having

(K) **Valence**
- k_1 favorable
- k_2 neutral
- k_3 unfavorable

VALENCE with PRIORITY rank

(L) **Priority** { l_1 high; l_2 low } within each facet.] as these attitudes toward education are predicted by

(M) **Demographic factors**
- m_1 age
- m_2 sex
- m_3 education (amount)
- m_4 income
- m_5 occupation
- m_6 social class

and

(N) **Social-psychological factors**
- n_1 value structure
- n_2 religiosity
- n_3 change orientation

and

(O) **Contact factors**
- o_1 amount of contact
- o_2 enjoyment of contact
- o_3 alternatives to contact

and

(P) **Knowledge factors**
- p_1 knowledge about education.

[X Y A B C D E F G H I J ⟶ K L] ⟵ M N O P

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determination of attitude content, sampling of the items, and length of the scales may be resolved on the basis of this model.

With reference to the scaling of values, it is recommended that the dimensions and classification schemes of values relevant to attitudes toward the mentally ill, the disabled, and education should be re-examined. If scaling of value items with Guttman's technique is desired, then the forced-choiced format should not be used. It is also suggested that some other value instruments, such as, The Differential Value Inventory (Prince, 1957) or Ways to Live (Morris, 1956) be employed in order to determine which value scale differentiates the groups significantly in respect to the criteria.

Statistical Analysis.--Recommendations regarding scale analysis have already been mentioned in the previous section. In addition, factor analysis appears to be of greater potential value in determining predictor variables for subsequent multiple regression analysis. Future research should also use chi-square statistics to test goodness of fit of the sample results with the normal probability model or some other theoretical distributions of the parent population.

Part III: Concluding Summary

The present research has confirmed, in general, the impact of personal contact in the maintenance of favorable attitudes toward emotionally disturbed and physically

handicapped persons. It has furthermore demonstrated that amount of contact alone does not always produce favorableness of attitudes; rather enjoyment and avoidance of contact are also involved in some manner. However, no consistent pattern can be determined between contact variables and attitudes from the present research. The data also point to the fact that mothers of normal children have more favorable attitudes toward the disabled than toward emotionally disturbed persons and that the amount of attitudes toward the disabled is the same in both the mothers of normal and the mothers of physically handicapped children. This gives the impression that cultural stereotypes about mental illness and physical disability play a significant role in attitudes even in the absence of personal contact. Contrary to expectation, more frequent contact is seen to reduce the intensity of attitudes toward emotionally disturbed and physically handicapped persons. The majority of the hypotheses relating to values, change orientations, and attitudes toward education are not confirmed consistently, and as such no definite conclusions can be made on the basis of the present investigation.

Although several specific hypotheses remain clearly unsubstantiated in the study, it does not necessarily warrant rejection or a major reformulation of the hypotheses in question at the present state of our knowledge about the constructs of attitude and values and

their relationships to other variables. Consideration of theoretical and methodological problems would suggest further examination of the hypotheses with the help of improved research design, more adequately formulated measuring instruments, and more appropriate statistical techniques.

A major implication of the research findings is that future studies of attitudes about important social objects such as the mentally ill and the disabled must encounter the complexity of attitude composition under a sound and logically consistent theoretical system. Only then it is possible to derive a meaningful and predictable relationship between specific attitudes and relevant interactive variables.

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APPENDICES

APPENDIX A-1

Handicapped Persons Scale

No. _____ Location _____

Male _____ Group _____

Female _____ Date _____

HANDICAPPED PERSONS SCALE

Instructions: Given below are 20 statements of opinion about physically handicapped persons. We all think differently about persons with physical handicaps. Here you may express how you think by choosing one of the four possible answers following each statement. These answers indicate how much you agree or disagree with the statement. Please mark your answer by placing a circle around the number in front of the answer you select.

You are also asked to indicate for each statement how strongly you feel about your marking of the statement. Please mark this part of your answer in the same way as before, by placing a circle around the number in front of the answer you select.

---

1. Parents of handicapped children should be less strict than other parents.

   1. Strongly disagree 3. Agree

   2. Disagree 4. Strongly agree

   About how strongly do you feel about your answer?

   1. Not strongly at all 3. Fairly strongly

   2. Not very strongly 4. Very strongly

2. Physically handicapped persons are just as intelligent as non-handicapped ones.

   1. Strongly disagree 3. Agree

   2. Disagree 4. Strongly agree

   About how strongly do you feel about your answer?

   1. Not strongly at all 3. Fairly strongly

   2. Not very strongly 4. Very strongly

3. Handicapped people are usually easier to get along with than other people.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly strongly
4. Very strongly

4. Most physically handicapped people feel sorry for themselves.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly strongly
4. Very strongly

5. Physically handicapped people are the same as anyone else.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly strongly
4. Very strongly

6. There shouldn't be special schools for physically handicapped children.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly strongly
4. Very strongly

7. It would be best for physically handicapped persons to live and work in special communities.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly strongly
4. Very strongly

8. It is up to the government to take care of physically handicapped persons.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly strongly
4. Very strongly

9. Most physically handicapped people worry a great deal.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly strongly
4. Very strongly

10. Physically handicapped people should not be expected to meet the same standards as non-handicapped people.

1. Strongly Disagree
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly strongly
4. Very strongly

11. Physically handicapped people are as happy as non-handicapped ones.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly strongly
4. Very strongly

12. Severely physically handicapped people are no harder to get along with than those with minor handicapps.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly strongly
4. Very strongly

13. It is almost impossible for a handicapped person to lead a normal life.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly strongly
4. Very strongly

14. You should not expect too much from physically handicapped people.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly strongly
4. Very strongly

15. Physically handicapped people tend to keep to themselves much of the time.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly strongly
4. Very strongly

16. Physically handicapped people are more easily upset than non-handicapped people.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly strongly
4. Very strongly

17. Physically handicapped persons cannot have a normal social life.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly strongly
4. Very strongly

18. Most physically handicapped people feel that they are not as good as other people.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly strongly
4. Very strongly

19. You have to be careful of what you say when you are with physically handicapped people.

1. Strongly disagree
3. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly strongly
4. Very strongly

20. Physically handicapped people are often grouchy.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly strongly
4. Very strongly

APPENDIX A-2

Emotionally Disturbed Persons Scale

No. _____ Location_____

Male _____ Group_____

Female _____ Date _____

EMOTIONALLY DISTURBED PERSONS SCALE

Instructions: Given below are 20 statements of opinion about emotionally disturbed persons. We all think differently about persons with emotional disturbances. Here you may express how you think by choosing one of the four possible answers following each statement. Please mark your answer by placing a circle around the number in front of the answer you select.

You are also asked to indicate for each statement how strongly you feel about your marking of the statement. Please mark this part of your answer in the same way as before, by placing a circle around the number in front of the answer you select.

---

1. Parents of emotionally distrubed children should be less strict than other parents.

   1. Strongly disagree 3. Agree

   2. Disagree 4. Strongly agree

   About how strongly do you feel about your answer?

   1. Not strongly at all 3. Fairly strongly

   2. Not very strongly 4. Very strongly

2. Emotionally disturbed persons are just as intelligent as emotionally stable ones.

   1. Strongly disagree 3. Agree

   2. Disagree 4. Strongly agree

   About how strongly do you feel about your answer?

   1. Not strongly at all 3. Fairly strongly

   2. Not very strongly 4. Very strongly

No. _____ EDPS

3. Disturbed people are usually easier to get along with than other poeple.

1. Strongly disagree 3. Agree

2. Disagree 4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all 3. Fairly strongly

2. Not very strongly 4. Very strongly

4. Most emotionally disturbed people feel sorry for themselves.

1. Strongly disagree 3. Agree

2. Disagree 4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all 3. Fairly strongly

2. Not very strongly 4. Very strongly

5. Emotionally disturbed people are the same as anyone else.

1. Strongly disagree 3. Agree

2. Disagree 4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all 3. Fairly strongly

2. Not very strongly 4. Very strongly

6. There shouldn't be special schools for emotionally disturbed children.

1. Strongly disagree 3. Agree

2. Disagree 4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all 3. Fairly strongly

2. Not very strongly 4. Very strongly

No. _____ EDPS

7. It would be best for emotionally distrubed persons to live and work in special communities.

1. Strongly disagree 3. Agree

2. Disagree 4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all 3. Fairly strongly

2. Not very strongly 4. Very strongly

8. It is up to the government to take care of emotionally disturbed persons.

1. Strongly disagree 3. Agree

2. Disagree 4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all 3. Fairly strongly

2. Not very strongly 4. Very strongly

9. Most emotionally disturbed people worry a great deal.

1. Strongly disagree 3. Agree

2. Disagree 4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all 3. Fairly strongly

2. Not very strongly 4. Very strongly

10. Emotionally distrubed people should not be expected to meet the same standards as emotionally stable people.

1. Strongly disagree 3. Agree

2. Disagree 4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all 3. Fairly strongly

2. Not very strongly 4. Very strongly

No. _____ EDPS

11. Emotionally disturbed people are as happy as emotionally stable ones.

1. Strongly disagree 3. Agree

2. Disagree 4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all 3. Fairly strongly

2. Not very strongly 4. Very strongly

12. Severely emotionally disturbed people are no harder to get along with than those with minor disturbances.

1. Strongly disagree 3. Agree

2. Disagree 4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all 3. Fairly strongly

2. Not very strongly 4. Very strongly

13. It is almost impossible for an emotionally disturbed person to lead a normal life.

1. Strongly disagree 3. Agree

2. Disagree 4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all 3. Fairly strongly

2. Not very strongly 4. Very strongly

14. You should not expect too much from emotionally disturbed people.

1. Strongly disagree 3. Agree

2. Disagree 4. Strongly agree

About how strongly do you feel about your answers?

1. Not strongly at all 3. Fairly strongly

2. Not very strongly 4. Very strongly

No. _____ EDPS

15. Emotionally disturbed people tend to keep to themselves much of the time.

1. Strongly disagree 3. Agree

2. Disagree 4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all 3. Fairly strongly

2. Not very strongly 4. Very strongly

16. Emotionally disturbed people are more easily upset than emotionally stable ones.

1. Strongly disagree 3. Agree

2. Disagree 4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all 3. Fairly strongly

2. Not very strongly 4. Very strongly

17. Emotionally disturbed persons cannot have a normal social life.

1. Strongly disagree 3. Agree

2. Disagree 4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all 3. Fairly strongly

2. Not very strongly 4. Very strongly

18. Most emotionally disturbed people feel that they are not as good as other people.

1. Strongly disagree 3. Agree

2. Disagree 4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all 3. Fairly strongly

2. Not very strongly 4. Very strongly

No. _____ EDPS

19. You have to be careful of what you say when you are with emotionally disturbed people.

1. Strongly disagree 3. Agree

2. Disagree 4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all 3. Fairly strongly

2. Not very strongly 4. Very strongly

20. Emotionally disturbed people are often grouchy.

1. Strongly disagree 3. Agree

2. Disagree 4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all 3. Fairly strongly

2. Not very strongly 4. Very strongly

APPENDIX A-3

Education Scale

NO. _____ Location _____

Male _____ Group _____

Female _____ Date _____

EDUCATION SCALE

Instructions: Given below are 20 statements of opinion about education. We all think differently about schools and education. Here you may express how you think by choosing one of the four possible answers following each statement. These answers indicate how much you agree or disagree with the statement. Please mark your answer by placing a circle around the number in front of the answer you select.

You are also asked to indicate for each statement how strongly you feel about your marking of the statement. Please mark this part of your answer in the same way as before, by placing a circle around the number in front of the answer you select.

---

1. The goals of education should be dictated by children's interests and needs as well as by the larger demands of society.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly strongly
4. Very strongly

2. No subject is more important than the personalities of the pupils.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly strongly
4. Very strongly

3. Schools of today are neglecting reading, writing, and arithmetic; the three R's.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly strongly
4. Very strongly

4. The pupil-teacher relationship is the relationship between a child who needs direction, guidance, and control and a teacher who is an expert supplying direction, guidance, and control.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly strongly
4. Very strongly

5. Teachers, like university professors, should have academic freedom--freedom to teach what they think is right and best.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly strongly
4. Very strongly

6. The backbone of the school curriculum is subject matter; activities are useful mainly to facilitate the learning of subject matter.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly disagree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly strongly
4. Very strongly

7. Teachers should encourage pupils to study and criticize our own and other economic systems and practices.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly strongly
4. Very strongly

8. The traditional moral standards of our culture should not just be accepted; they should be examined and tested in solving the present problems of students.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly strongly
4. Very strongly

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9. Learning is experimental; the child should be taught to test alternatives before accepting any of them.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly strongly
4. Very strongly

10. The curriculum consists of subject matter to be learned and skills to be acquired.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly strongly
4. Very strongly

11. The true view of education is so arranging learning that the child gradually builds up a storehouse of knowledge that he can use in the future.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly strongly
4. Very strongly

12. One of the big difficulties with modern schools is that discipline is often sacrificed to the interests of children.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly strongly
4. Very strongly

13. The curriculum should be made up of an orderly sequence of subjects that teach to all students the best of our cultural heritage.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly strongly
4. Very strongly

14. Discipline should be governed by long-range interests and well-established standards.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

About hos strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly strongly
4. Very strongly

15. Education and educational institutions must be sources of social ideas; education must be a social program undergoing continual reconstruction.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly strongly
4. Very strongly

16. Right from the very first grade, teachers must teach the child at his own level and not at the level of the grade he is in.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

About now strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly strongly
4. Very strongly

17. Children should be allowed more freedom than they usually get in the execution of learning activities.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly strongly
4. Very strongly

18. Children need and should have more supervision and discipline than they usually get.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly strongly
4. Very strongly

19. Learning is essentially a process of increasing one's store of information about the various fields of knowledge.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly strongly
4. Very strongly

20. In a democracy, teachers should help students understand not only the meaning of democracy but also the meaning of the ideologies of other political systems.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly strongly
4. Very strongly

APPENDIX A-4

Gordon Survey of Interpersonal Values

	M	L	E	L	E	C
RAW SCORE						
PERCENTILE	%	%	%	%	%	%
NORM GROUP						

Grade or Occupation ..... Date .....

School or Firm ..... Marital Status .....

SRA SURVEY OF INTERPERSONAL VALUES

By LEONARD V. GORDON

DIRECTIONS

In this booklet are statements representing things that people consider to be important to their way of life. These statements are grouped into sets of three. This is what you are asked to do:

Examine each set. Within each set, find the **one statement** of the three which represents what you consider to be **most important** to you. Blacken the space beside that statement in the column headed M (for **most).**

Next, examine the remaining two statements in the set. Decide which **one** of these statements represents what you consider to be **least important** to you. Blacken the space beside that statement in the column headed L (for **least).**

For every set you will mark **one statement** as representing what is **most important** to you, **one statement** as representing what is **least important** to you, and you will leave **one statement unmarked.**

Example

	M	L
To have a hot meal at noon	:::::	▬
To get a good night's sleep	:::::	:::::
To get plenty of fresh air	▬	:::::

Suppose that you have examined the three statements in the example, and although all three of the statements may represent things that are important to you, you feel that "To get plenty of fresh air" is the **most important** to you. You would blacken the space in the column headed M (for **most)** beside the statement. Notice that this has been done in the example.

You would then examine the remaining two statements to decide which of these represents something that is **least important** to you. Suppose that "To have a hot meal at noon" is the **least important** to you. You would blacken the space in the column headed L **(for least)** next to this statement. Notice that this has been done in the example.

You would leave the remaining statement unmarked.

In some cases it may be difficult to decide which statement to mark. Make the best decision that you can. This is not a test; there are no right or wrong answers. Be sure to mark **only one M (most)** choice and **only one L (least)** choice in a set. Do not skip any sets. Answer every set. Turn this booklet over and begin.

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Mark your answers in column A →

To be free to do as I choose
To have others agree with me
To make friends with the unfortunate

To be in a position of not having to follow orders
To follow rules and regulations closely
To have people notice what I do

To hold an important job or office
To treat everyone with extreme kindness
To do what is accepted and proper

To have people think of me as being important
To have complete personal freedom
To know that people are on my side

To follow social standards of conduct
To have people interested in my well being
To take the lead in making group decisions

To be able to do pretty much as I please
To be in charge of some important project
To work for the good of other people

To associate with people who are well known
To attend strictly to the business at hand
To have a great deal of influence

To be known by name to a great many people
To do things for other people
To work on my own without direction

To follow a strict code of conduct
To be in a position of authority
To have people around who will encourage me

To be friends with the friendless
To have people do good turns for me
To be known by people who are important

To be the one who is in charge
To conform strictly to the rules
To have others show me that they like me

To be able to live my life exactly as I wish
To do my duty
To have others treat me with understanding

To be the leader of the group I'm in
To have people admire what I do
To be independent in my work

To have people act considerately toward me
To have other people work under my direction
To spend my time doing things for others

To be able to lead my own life
To contribute a great deal to charity
To have people make favorable remarks about me

Turn the page and go on.

6789/1-98765432

Mark your answers in column B → B A

	B M	B L	A M	A L
To be a person of influence				
To be treated with kindness				
To always maintain the highest moral standards				
	M	**L**	**M**	**L**
To be praised by other people				
To be relatively unbound by social conventions				
To work for the good of society				
	M	**L**	**M**	**L**
To have the affection of other people				
To do things in the approved manner				
To go around doing favors for other people				
	M	**L**	**M**	**L**
To be allowed to do whatever I want to do				
To be regarded as the leader				
To do what is socially correct				
	M	**L**	**M**	**L**
To have others approve of what I do				
To make decisions for the group				
To share my belongings with other people				
	M	**L**	**M**	**L**
To be free to come and go as I want to				
To help the poor and needy				
To show respect to my superiors				
	M	**L**	**M**	**L**
To be given compliments by other people				
To be in a very responsible position				
To do what is considered conventional				
	M	**L**	**M**	**L**
To be in charge of a group of people				
To make all of my own decisions				
To receive encouragement from others				
	M	**L**	**M**	**L**
To be looked up to by other people				
To be quick in accepting others as friends				
To direct others in their work				
	M	**L**	**M**	**L**
To be generous toward other people				
To be my own boss				
To have understanding friends				
	M	**L**	**M**	**L**
To be selected for a leadership position				
To be treated as a person of some importance				
To have things pretty much my own way				
	M	**L**	**M**	**L**
To have other people interested in me				
To have proper and correct social manners				
To be sympathetic with those who are in trouble				
	M	**L**	**M**	**L**
To be very popular with other people				
To be free from having to obey rules				
To be in a position to tell others what to do				
	M	**L**	**M**	**L**
To always do what is morally right				
To go out of my way to help others				
To have people willing to offer me a helping hand				
	M	**L**	**M**	**L**
To have people admire me				
To always do the approved thing				
To be able to leave things lying around if I wish				

S	C	R	I	B	L

APPENDIX A-5

Personal Questionnaire (general)

No. _____ Location _____

Male _____ Group _____

Female _____ Date _____

PERSONAL QUESTIONNAIRE

This questionnaire has two parts to it. The first part has to do with your contacts with schools and education, and what you know about education. You may have had considerable contact with schools and education, or you may know a great deal about education. On the other hand, you may have had little or no contact with schools or education and may have never thought much about it at all.

For the purposes of this investigation, the answers of all persons are important. If you know very little or nothing about schools or education, your answers are important. If you know a great deal about them, your answers are important.

The second part of the questionnaire has to do with personal information about you. Since the questionnaire is completely anonymous, you may answer all of the questions freely without any concern about being identified. It is important to the study to obtain your answer to every question.

No. _____ PERSONAL QUESTIONNAIRE

Please read each question carefully and do not omit any questions. Please answer by circling the correct answer (or answers) or fill in the answer as requested.

SECTION 1: Experiences with Schools and Education

1. Below are listed several different kinds of schools or educational divisions. In respect to these various kinds or levels of education, which one have you had the most professional or work experience with, or do you have the most knowledge about? This does not refer to your own education. Please answer by circling the number of the group you select. Circle only one.

   Elementary School (Grade School) 1

   Secondary School (High School) 2

   College or University 3

   Other Types (Please Specify) _____ 4

   I have had no such experience 5

2. Which other groups, in addition to the one indicated above, have you also had some professional or work experience with? Please circle the number of each additional group with which you have had some experience.

   Elementary School (Grade School) 1

   Secondary School (High School) 2

   College or University 3

   Other Types (Please Specify) _____ 4

   I have had no such experience 5

3. The following questions have to do with additional kinds of contracts you have had with schools or education. Please circle the number of each experience that applies to you. Be sure and circle the number of every experience that applies to you.

I know little or nothing about education 1

I have read or heard a little about schools and education 2

I have studied about schools and education through reading, movies, lectures, or observations 3

A neighbor of mine works in education 4

A friend of mine works in education 5

Some relative works in education 6

My father, mother, brother, sister, wife (husband), or child works in education (in any position, professional or non-professional) 7

I have worked in education, as a teacher, administrator, counselor, volunteer, etc. 8

Other (Please Specify) _____ 9

If on the preceding three questions you indicated that you have had no personal experience with any kind of education, please skip Questions #4 through #7. If you indicated that you have had experience with one or more of the levels of education listed, please answer Questions #4 through #7.

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4. About how much have you worked in schools or educational settings? Please circle the number of the one best answer.

Less than three months 1

Between three and six months 2

Between six months and one year 3

Between one and three years 4

Between three and five years 5

Between five and ten years 6

Over ten years 7

Over fifteen years 8

5. If you have ever worked in education, about what per cent of your income was derived from such work?

Less than 10% 1

Between 10 and 25% 2

Between 25 and 50% 3

Between 50 and 75% 4

Between 75 and 100% 5

6. If you have ever worked in education, how have you generally felt about it?

I definitely have disliked it 1

I have not liked it very much 2

I have liked it somewhat 3

I have definitely enjoyed it 4

7. If you have ever worked in education for personl gain, (for example, for money or some other gain), what opportunities did you have (or do you have) to work at something else instead, that is, something else that was (or is) acceptable to you as a job?

I do not know what other jobs were available or acceptable 1

No other job was available 2

Other jobs available were not at all acceptable to me . 3

Other jobs available were not quite acceptable to me .. 4

Other jobs available were fully acceptable to me 5

8. How old are you? (Write age in box) ..... [ ]

9. Where were you mainly reared or "brought up" in your youth (that is, up to the age of 15 or 16)?

Country 1

Country Town 2

City 3

City Suburb 4

10. Where have you (or the main bread winner in your family) been employed during the past three years?

Country 1

Country Town 2

City 3

City Suburb 4

11. Where you have mainly lived during the past three years?

Country 1

Country Town 2

City 3

City Suburb 4

12. What is your marital status?

Married 1

Single 2

Divorced 3

Widowed 4

Separated 5

13. How many children do you have? (Please write number in box).

14. Please answer either A or B, which applies best to your present situation. Please read both choices, than answer only one.

A. If you are self-supporting, about what is your total yearly income before taxes (or, if you are married, the total yearly income in the family). Include extra income from any regular sources such as dividends, insurance, etc. Please write the total in the box .

B. If you are not self-supporting (or, if you are married, if your family is not self-supporting), what is the approximate total yearly income before taxes of the persons who mainly provide your support (that is, parents, relatives or others). Make the best estimate you can.

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15. According to your answer to Question 14, about how does your income compare with that of most people in the total community where you live?

Much lower 1

Lower 2

About the same 3

Higher 4

Much higher 5

16. How many brothers have you? (Please write number in box).

17. How many sisters have you? (Please write number in box).

18. About how does (or did) your father's income compare with that of most people in the community in which he lives (or lived)?

Much lower 1

Lower 2

About the same 3

Higher 4

Much higher 5

19. What is your religion?

Catholic 1

Protestant 2

Jewish 3

None 4

Other (Please Specify) _____ 5

20. About how important is your religion to you in your daily life?

I have no religion 1

Not very important 2

Fairly important 3

Very important 4

21. During an "average" work day, you probably have occasion to talk and make contact with other adult persons where you are employed. Estimate about what per cent of these contacts and conversations are with people you feel <u>personally close</u> to, whom you consider to be <u>close friends</u>, or that are relatives of yours.

None 1

I do not usually talk or make contact with other adult persons where I am employed 2

Less than 10% 3

Between 10 and 30% 4

Between 30 and 50% 5

Between 50 and 70% 6

Between 70 and 90% 7

More than 90% 8

22. How important is it to you to work with people you feel personally close to?

Not at all important 1

Not very important 2

Fairly important 3

Very important 4

23. Now please consider all of the personal contacts you have with people when you are not at work. Would you estimate about what per cent of your contacts apart from working hours are spent with people whom you know because of your job; that is, those who work at the same job, trade, or profession, or in the same place that you do, or that you otherwise contact in the pursuit of your job.

None 1

Less than 10% 2

Between 10 and 30% 3

Between 30 and 50% 4

Between 50 and 70% 5

Between 70 and 90% 6

More than 90% 7

24. What social class do you believe you are in?

Lower 1

Lower Middle 2

Middle 3

Upper Middle 4

Upper 5

Upper Upper 6

25. Which social class do you believe your father is (or was) in?

Lower 1

Lower Middle 2

Middle 3

Upper Middle 4

Upper 5

Upper Upper 6

26. About how much education do you have (Circle only one).

3 years of school or less 1

6 years of school or less 2

9 years of school or less 3

12 years of school or less 4

Some college or university 5

A college or university degree 6

Some graduate work beyond the first degree 7

One or more advanced degrees 8

Other (Please note number of years of study or diploma obtained) _____ 9

27. About how does your education compare with that of most people?

Much less than most 1

Less than most 2

About average 3

More than most 4

Much more than most 5

28. About how does (or did) your father's education compare with that of most people in his time?

Much less than most 1

Less than most 2

About average 3

More than most 4

Much more than most 5

29. What type of living arrangement do you have?

Rent a house 1

Rent an apartment 2

Rent a room (meals in a restaurant, etc.) 3

Purchase a room and board (rooming house, etc.) 4

Own an apartment 5

Own a house 6

Other (Please Specify) _____ 7

30. Please answer either A or B. Please read both before answering.

A. If you are renting the house in which you live, about how much money per month do you pay for rent? (Write amount in box). ..... [ ]

B. If you own the house in which you live (house, apartment, or other), about how much money per month do you believe you could rent the house for? (Write amount in box). ..... [ ]

31. In every community each group (for example, schools, businessmen, labor, the local government) has a different job to do for the community. In your community, would you say that the schools are doing an excellent, good, fair, or poor job? How about businessmen? Labor? The local government? The doctors and hospitals? The church? (Please circle the appropriate number to indicate how you feel each job is being done). Please answer for each group.

A. Elementary Schools

Do not know 1

Poor 2

Fair 3

Good 4

Excellent 5

B. Secondary Schools

Do not know 1

Poor 2

Fair 3

Good 4

Excellent 5

31. Continued from Page 11. The instructions on the previous page apply to the following sections, C through E.

C. Universities

Do not know 1

Poor 2

Fair 3

Good 4

Excellent 5

D. Businessmen

Do not know 1

Poor 2

Fair 3

Good 4

Excellent 5

E. Labor

Do not know 1

Poor 2

Fair 3

Good 4

Excellent 5

31. Continued from Page 12. The instructions on Page 11 apply to the following sections, F through I.

F. Local Government

Do not know 1

Poor 2

Fair 3

Good 4

Excellent 5

G. National Government

Do not know 1

Poor 2

Fair 3

Good 4

Excellent 5

H. Health Services (Doctors and Hospitals)

Do not know 1

Poor 2

Fair 3

Good 4

Excellent 5

I. Churches

Do not know 1

Poor 2

Fair 3

Good 4

Excellent 5

32. How long have you lived in your present community?

Less than 1 year 1

From 1 to 2 years 2

From 3 to 6 years 3

From 7 to 10 years 4

Over 10 years 5

33. Have you changed your residency (from one community to another) during the past two years? Please circle the correct number.

Yes 1

No 2

34. Have you changed your employment during the past two years? Please circle the correct number.

Yes 1

No 2

35. About how many times have you changed residency (communities) during the past 10 years? Please circle the correct number.

None 1

1 Time 2

2 - 3 Times 3

4 - 6 Times 4

7 - 10 Times 5

Over 10 Times 6

36. About how many times have you changed jobs during the past 10 years? Please circle the correct number.

None 1

1 Time 2

2 - 3 Times 3

4 - 6 Times 4

7 - 10 Times 5

Over 10 Times 6

37. Please state your occupation. Briefly state the title or name of your job and the nature of your work.

_____

_____

_____

38. In respect to your religion, about to what extent do you observe the rules and regulations of your religion? Please circle the correct number.

I have no religion 1

Seldom 2

Sometimes 3

Usually 4

Almost always 5

39. Health experts say adding certain chemicals to drinking water results in less decay in people's teeth. If you could add these chemicals to your water with little cost to you, would you be willing to have the chemicals added? Please circle the correct number.

Probably not 1

No 2

Maybe 3

Yes 4

40. Some people feel that in bringing up children, new ways and methods should be tried whenever possible. Others feel that trying out new methods is dangerous. What is your feeling about the following statement?

"New methods of raising children should be tried out whenever possible."

Strongly disagree 1

Slightly disagree 2

Slightly agree..... 3

Strongly agree 4

41. Family planning on birth control has been discussed by many people. What is your feeling about a married couple practicing birth control? Do you think they are doing something good or bad? If you had to decide, would you say they are doing wrong, or rather, that they are doing right?

It is always right 1

It is probably all right 2

It is usually wrong 3

It is always wrong 4

42. People have different ideas about what should be done concerning automation and other new ways of doing things. How do you feel about the following statement?

"Automation and similar new procedures should be encouraged (in government, business, and industry) since eventually it creates new jobs and raises the standard of living."

Disagree Strongly 1

Disagree Slightly 2

Agree Slightly 3

Agree Strongly 4

43. Running a village, city, town, or any governmental organization is an important job. What is your feeling on the following statement?

"Political leaders should be changed regularly, even if they are doing a good job."

Strongly disagree 1

Slightly disagree 2

Slightly agree 3

Strongly agree 4

44. Some people believe that more local government income should be used for education even if doing so means raising the amount you pay in taxes. What are your feeling on this?

Strongly disagree 1

Slightly disagree 2

Slightly agree 3

Strongly agree 4

46. People have different ideas about planning for education in their nation. Which one of the following do you believe is the best way? Answer only one.

Planning for education should be left entirely to the parents 1

Educational planning should be primarily directed by the individual city or other local governmental unit .. 2

Education planning should be primarily directed by the national government 3

47. Some people are more set in their ways than others. How would you rate yourself? Please circle the number of your choice.

I find it very difficult to change 1

I find it slightly difficult to change 2

I find it somewhat easy to change my ways 3

I find it very easy to change my ways 4

48. I find it easier to follow rules than to do things on my own.

Agree strongly 1

Agree slightly 2

Disagree slightly 3

Disagree strongly 4

49. I like the kind of work that lets me do things about the same way from one week to the next. Circle the number of your choice.

Agree strongly 1

Agree slightly 2

Disagree slightly 3

Disagree strongly 4

50. A good son will try to find work that keeps him near his parents even though it means giving up a good job in another part of the country.

Agree strongly 1

Agree slightly 2

Disagree slightly 3

Disagree strongly 4

51. We should be as helpful to people we do not know as we are to our friends.

Disagree strongly 1

Disagree slightly 2

Agree slightly 3

Agree strongly 4

52. Planning only makes a person unhappy because your plans hardly ever work out anyway.

Agree strongly 1

Agree slightly 2

Disagree slightly 3

Disagree strongly 4

53. Which one of the following requisities do you consider most important to make your life more happy and satisfactory in the future? Circle the single, most important choice.

Nothing 1

More money 2

More friends 3

Better job 4

Good health 5

Other (Please Specify) _____ 6

54. What do you think you can do to make this possible? Please answer one of the two alternatives below.

Nothing _____

Please Specify _____

_____

_____

_____

APPENDIX A-6

Personal Questionnaire: HP

No. _____ Location _____

Male _____ Group _____

Female _____ Date _____

PERSONAL QUESTIONNAIRE: HP

This questionnaire deals with your contacts with physically handicapped persons, and what you know about them. Perhaps you have had much contact with physically handicapped persons, or you may have studied about them. On the other hand, you may have had little or no contact with physically handicapped persons, and may have never thought much about them at all.

For the purposes of this investigation, the answers of all persons are important, so even if you know very little or nothing about physically handicapped persons your answers are important.

PERSONAL QUESTIONNAIRE: HP

Please read each question carefully and do not omit any questions.

Please answer by circling the correct answer (or answers) or fill in the answer as requested.

1. Some physically handicapping conditions are listed below. In respect to these various handicaps, which have you had the most actual experience with. Please answer by circling the number of the group you select. Circle only one.

   1. blind
   2. partially blind
   3. deaf (and deaf-mute)
   4. partially deaf
   5. crippled or amputated limbs
   6. disfigured (such as severe burns or scars on face)
   7. spastic (or cerebral palsy)
   8. speech disorders
   9. none

2. Which other groups have you also had some experience with? Please circle the number of each additional group with which you have had some experience.

   1. blind
   2. partially blind
   3. deaf (and deaf-mute)
   4. partially deaf
   5. crippled or amputated limbs
   6. disfigured (such as severe burns or scars on face)
   7. spastic (or cerebral palsy)
   8. speech disorders
   9. none

If on the preceding question you indicated that you have had no personal experience with physically handicapped persons (by circling response No. 9, please skip questions #3 through #9. If you indicated that you have had the experience with one or more of the above handicapping conditions, please answer questions #3 through #9.

3. The following questions have to do with the kinds of experiences you have had with physically handicapped persons. Please circle the number of each experience that applies to you. If more than one experience applies, please circle a number for each experience that applies.

I have read or heard a little about physically handicapped persons 1

I have studied about physically handicapped persons through reading, movies, lectures, or observations .. 2

A friend is physically handicapped 3

Some relative is physically handicapped 4

I have personally worked with physically handicapped persons, as a teacher, counselor, volunteer, child care, etc. 5

My father, mother, brother, sister, wife (husband) or child is physically handicapped 6

I, myself, have a physical handicap. (Briefly, please indicate the kind of handicap) _____ 7

_____

4. Considering all of the times you have talked, worked, or in some other way had personal contact with physically handicapped persons, about how many times has it been altogether? Please circle the number of the single best answer.

Less than 10 occasions 1

Between 10 and 50 occasions 2

Between 50 and 100 occasions 3

Between 100 and 500 occasions 4

More than 500 occasions 5

5. When you have been in contact with physicially handicapped people, how easy for you, in general, would it have been to have avoided being with these handicapped persons?

I could generally have avoided these personal contacts only at great cost or difficulty 1

I could generally have avoided these personal contacts only with considerable difficulty 2

I could generally have avoided these personal contacts but with some inconvenience 3

I could generally have avoided these personal contacts without any difficulty or inconvenience 4

6. During your contact with physically handicapped persons, did you gain materially in any way through these contacts, such as being paid, or gaining academic credit, or some such gain?

No, I have never received money, credit, or any other material gain 1

Yes, I have been paid for working with handicapped persons 2

Yes, I have received academic credit or other material gain 3

Yes, I have both been paid and received academic credit 4

7. If you have never been paid for working with handicapped persons, go on to the next question. If you have been paid, about what per cent of your income was derived from contact with physically handicapped persons during the actual period when working with them?

Less than 10% 1

Between 10 and 25% 2

Between 25 and 50% 3

Between 50 and 75% 4

More than 75% 5

8. How have you generally felt about your experience with handicapped persons?

I definitely have disliked it 1

I have not liked it very much 2

I have liked it somewhat 3

I have definitely enjoyed it 4

9. If you have ever worked with the physically handicapped for personal gain (for example, for money, or some other gain), what opportunities did you have (or do you have) to work at something else instead; that is, something else that was (or is) acceptable to you as a job?

I do not know what other jobs were available or acceptable 1

No other job was available 2

Other jobs available were not at all acceptable to me . 3

Other jobs available were not quite acceptable to me .. 4

Other jobs available were fully acceptable to me 5

The following questions should be answered by all persons, regardless of whether or not they have had any personal contact with persons who are physically handicapped.

10. Have you had any experience with mentally retarded persons? Considering all of the times you have talked, worked, or in some other way had personal contact with mentally retarded persons, about how many times has it been altogether? Please circle the number of the single best answer.

Less than 10 occasions 1

Between 10 and 50 occasions 2

Between 50 and 100 occasions 3

Between 100 and 500 occasions 4

More than 500 occasions 5

11. Have you had any experience with emotionally ill persons? Considering all of the times you have talked, worked, or in some other way had personal contact with emotionally ill persons, about how many times has it been altogether? Please circle the number of the single best answer.

Less than 10 occasions 1

Between 10 and 50 occasions 2

Between 50 and 100 occasions 3

Between 100 and 500 occasions 4

More than 500 occasions 5

APPENDIX A-7

Personal Questionnaire: EDP

NO. _____ LOCATION_____

MALE_____ GROUP_____

FEMALE_____ DATE_____

PERSONAL QUESTIONNAIRE: EDP

This questionnaire deals with your contacts with emotionally disturbed persons, and what you know about them. Perhaps you have had much contact with emotionally disturbed persons, or you may have studied about them. On the other hand, you may have had little or no contact with emotionally disturbed persons, and may have never thought much about them at all.

For the purposes of this investigation, the answers of all persons are important, so even if you know very little or nothing about emotionally disturbed persons your answers are important.

NO. _____

PERSONAL QUESTIONNAIRE: EDP

Please read each question carefully and do not omit any questions. Please answer by circling the correct answer (or answers) or fill in the answer as requested.

1. Please indicate below whether or not you have had any experience with emotionally disturbed persons. Be sure to read the definition of emotionally disturbed persons which is enclosed. Please circle only one of the following choices.

   Yes, I have had experience with emotionally disturbed persons 1

   No, I have not had experience with emotionally disturbed persons 2

If on the preceding question you indicated that you have had no personal experience with emotionally disturbed persons (by circling response No. 2), please skip Questions 2 through 8. If you indicated that you had experience with emotionally disturbed persons, please answer Questions 2 - 8.

2. The following questions have to do with the kinds of experiences you have had with emotionally disturbed persons. Please circle the number of each experience that applies to you. If more than one experience applies, please circle a number for each experience that applies.

   I have read or heard a little about emotionally disturbed persons 1

   I have studied about emotionally disturbed persons through reading, movies, lectures, or observations. 2

   A friend is emotionally disturbed 3

   Some relative is emotionally disturbed. 4

   I have personally worked with emotionally disturbed persons, as a teacher, counselor, volunteer, child care, etc.. 5

NO. _____ PQ-EDP

My father, mother, brother, sister, wife (husband), or child is emotionally disturbed 6

I, myself, have an emotional disturbance. (Briefly, please indicate the kind of emotional disturbance)

_____ 7

3. Considering all of the times you have talked, worked, or in some other way had personal contact with emotionally disturbed persons, about how many times has it been altogether? Please circle the number of the single best answer.

Less than 10 occations 1

Between 10 and 50 occasions. 2

Between 50 and 100 occasions 3

Between 100 and 500 occasions. 4

More than 500 occasions. 5

4. When you have been in contact with emotionally disturbed people how easy for you, in general, would it have been to have avoided being with these disturbed persons?

I could generally have avoided these personal contacts only at great cost and difficulty 1

I could generally have avoided these personal contacts only with considerable difficulty 2

I could generally have avoided these personal contacts but with some inconvenience 3

I could generally have avoided these personal contacts without any difficulty or inconvenience . . 4

5. During your contact with emotionally disturbed persons, did you gain materially in any way through these contacts, such as being paid, or gaining academic credit, or some gain?

No, I have never received money, credit, or any other material gain. 1

Yes, I have been paid for working with disturbed persons. 2

Yes, I have received academic credit or other material gain. 3

Yes, I have both been paid and received academic credit 4

NO. _____ PQ-EDP

6. If you have never been paid for working with distrubed persons, go on to the next question. If you have been paid, about what percent of your income was derived from contact with emotionally disturbed persons during the actual period when working with them?

Less than 10% 1

Between 10 and 25%. 2

Between 25 and 50%. 3

Between 50 and 75%. 4

More than 75% 5

7. How have you generally felt about your experience with disturbed persons?

I have definitely disliked it 1

I have not liked it very much 2

I have liked it somewhat. 3

I have definitely enjoyed it. 4

8. If you have ever worked with the emotionally disturbed for personal gain (for example, for money or some other gain), what opportunities did you have (or do you have) to work at something else instead; that is, something else that was (or is) acceptable to you as a job?

I do not know what other jobs were available or acceptable. 1

No other job was available. 2

Other jobs available were not at all acceptable to me 3

Other jobs available were not quite acceptable to me 4

Other jobs available were fully acceptable to me. . 5

The following questions should be answered by all persons, regardless of whether or not they have had any personal contact with persons who are emotionally disturbed.

NO. _____ PQ-EDP

9. Have you had any experience with physically handicapped persons? Considering all of the times you have talked, worked, or in some other way had personal contact with physically handicapped persons, about how many times has it been altogether? Please circle the number of the single best answer.

Less than 10 occasions. 1

Between 10 and 50 occasions 2

Between 50 and 100 occasions. 3

Between 100 and 500 occasions 4

More than 500 occasions 5

10. Have you had any experience with mentally retarded persons? Considering all of the times you have talked, worked, or in some other way had personal contact with mentally retarded persons, about how many times has it been altogether? Please circle the number of the single best answer.

Less than 10 occasions. 1

Between 10 and 50 occasions 2

Between 50 and 100 occasions. 3

Between 100 and 500 occasions 4

More than 500 occasions 5

11. Please indicate below if any of your own children are/or have been physically handicapped or emotionally disturbed? (Circle only one.)

Yes, I have, or have had, a child who was physically handicapped 1

Yes, I have, or have had, a child who was emotionally disturbed 2

Yes, I have had a child who was both physically handicapped and emotionally disturbed 3

None of my children have been physically handicapped or emotionally disturbed. 4

APPENDIX A-8

Definitions of Physical Handicap

DEFINITIONS

What is meant by "physical handicap."

The words "physically handicapped" will be used often in the questions and statements that follow. Where these words are used, they will include persons with any of the following handicaps:

1. blind persons--those who have no useful sight at all.

2. partly blind persons--those who have some sight but have trouble reading and getting about even with glasses.

3. deaf persons--those who have no useful hearing at all.

4. partly deaf persons--those who have some hearing but have trouble understanding other persons even with a hearing aid.

5. cripples or amputees--those who have arms or legs that have been paralyzed or removed even though they may be of some use with artificial hands or legs.

6. spastic (or cerebral palsy)--those who have poor control and coordination of their leg, arm, and head movements. Movements are often jerky and speech hard to understand.

7. disfigured--those who have been obviously damaged about the face, such as with burns or scars, so that the face has been changed.

APPENDIX A-9

Definition of Emotional Disturbance

DEFINITION

What is meant by "emotional disturbance?"

The words "emotionally disturbed" will be used often in the questions and statements that follow. Where these words are used, they will include persons with the following disturbance:

> Those children or adults whose behaviors, feelings or emotions cause them to have difficulties with everyday problems which they are unable to solve.

APPENDIX B-1

Administration Procedures

ATTITUDES AND VALUES TOWARD MENTAL AND PHYSICAL DISABILITIES

The purpose of this study is to investigate attitudes and values of parents toward physically handicapped and emotionally disturbed persons. The problems of mental and physical handicaps have assumed much greater importance in the life of a modern community.

The Betty Jane Memorial Center is a unique place providing facilities for the treatment of various kinds of disabilities. This is a growing institution particularly geared to the local needs of the community. Its service facilities are constantly expanding with a view to meeting the needs of the community in the best possible manner. The future planning of these facilities, however, should depend upon a proper evaluation of the parents' attitude and values.

The present investigation attempts to deal with the attitudes and values of the parents who are using the services at both Betty Jane Rehabilitation Center and Sandusky Valley Guidance Center.

(Tiffin)

ATTITUDES AND VALUES TOWARD MENTAL AND PHYSICAL DISABILITIES

The purpose of this study is to investigate attitudes and values of parents toward emotionally disturbed and physically handicapped persons. The problems of mental illness and physical disability have assumed much greater importance in the life of a modern community. Both the government and the civic leaders have helped establish mental health clinics and rehabilitation centers in order to provide professional services to the public. These service facilities are constantly expanding with a view to meeting the needs of the community more effectively.

However, the future planning of these facilities should depend upon a proper evaluation of the parents' attitudes and values in respect to the emotionally disturbed and the physically disabled. The present investigation, thus, attempts to determine the various factors that might be associated with attitudes toward emotionally disturbed and physically handicapped persons.

(Mount Pleasant)

INSTRUCTIONS FOR ANSWERING THE QUESTIONS

The enclosed questionnaires attempt to determine the parents' attitude toward physically handicapped and emotionally disturbed persons.

Please note, in a study like this, there are no right or wrong answers. We want you to answer how you feel about certain things. Therefore, we do not want your name on the questionnaire. In this manner no one will know your answers. Please answer quickly, with your first idea, and do not spend a lot of time thinking about each item. If, however, there is no answer that exactly fits what you would like to answer, please choose the alternative nearest to your desired answer.

Order of Administration of Questionnaires

1. Page of Definitions(Physical Handicap)
2. Education Scale
3. Survey of Interpersonal Values
4. Personal Questionnaire
5. Handicapped Persons Scale
6. Personal Questionnaire: HP (Handicapped Persons)
7. Page of Definition (Emotional Disturbance)
8. Emotionally Disturbed Persons Scale
9. Personal Questionnaire: EDP (Emotionally Disturbed Persons)

The questionnaires have been arranged in the order mentioned above. Please answer them in the same order. For your convenience and to avoid confusion, the questionnaires have been numbered (1-2-3-4-5-6-7-8-9) in the upper left hand corner of each set of questions. Take each set one at a time and when you have answered all questions, move on to the next set. Please do not look at them ahead of time.

Your cooperation is greatly appreciated!

APPENDIX B-2

Basic Variables of the Study

A. Attitudes Toward Education

1 Traditional attitudes, Items 3, 4, 6, 10, 11, 12, 13, 14, 18, 19 - Content
Raw Score total
Adjusted total score (dichotomized)

2 Traditional attitudes, Items 3, 4, 6, 10, 11, 12, 13, 14, 18, 19 - Intensity
Raw Score total
Adjusted total score (dichotomized)

3 Progressive attitudes, Items 1, 2, 5, 7, 8, 9, 15, 16, 17, 20 - Content
Raw Score total
Adjusted total score (dichotomized)

4 Progressive attitudes, Items 1, 2, 5, 7, 8, 9, 15, 16, 17, 20 - Intensity
Raw Score total
Adjusted total score (dichotomized)

B. Contact with Education (Q'aire)

1 Levels of education experienced
Q'aire, Item 1 (primary contact)
Q'aire, Item 2 (additional contacts - no. kinds of)

2 Varieties of contact with education
Q'aire, Item 3

3 Amount of contact (work) with education
Q'aire, Item 4

4 Personal gain through working in education
Q'aire, Item 5 (% of income)

5 Alternative opportunities available
Q'aire, Item 7 (refers to other possible employment)

6 Enjoyment of contact
Q'aire, Item 6

C. Aid to Education - Financial (Q'aire)

Item 44 (local)
Item 45 (federal or national)

D. Education Planning (Q'aire)

Item 46

E. Interpersonal Values - Gordon Scale

1 S scores: Support
2 C scores: Conformity
3 R scores: Recognition (comparative score)
4 I scores: Independence
5 B scores: Benevolence (asset score)
6 L scores: Leadership (comparative score)

F. Demographic, S.E.S., Other Control Data (All from Q'aire)

1 Education (self-amount), Item 26
2 Occupation (specific), Item 37
3 Income and rental (S. E. Class)
Item 14 (income - yearly, self-family)
Item 30 (rental)
4 Age: Item 8
5 Sex: Front sheet of questionnaire
6 Marital status: Item 12
7 Number of children: Item 13
8 Size of family:
Item 16 (brothers - do not use)
Item 17 (sisters - do not use)
Items 16 and 17 (siblings)
9 Housing (type of), Item 29
10 Mobility: Residency, Items 32, 33 and 35
Card 4, Col. 25
Occupational, Items 34 and 36
11 Rural-Urban Status: Items 9, 10 and 11
12 Employment status - current: Item 37

G. Satisfaction with institutions (Q'aire)

1 Satisfaction with elementary schools
Item 31-A
2 Satisfaction with secondary schools
Item 31-B
3 Satisfaction with universities
Item 31-C

4 Satisfaction with businessmen
Item 31-D
5 Satisfaction with labor
Item 31-E
6 Satisfaction with local government
Item 31-F
7 Satisfaction with national government
Item 31-G
8 Satisfaction with health services
Item 31-H
9 Satisfaction with churches
Item 31-I

H. Self-Statements (Q'aire)

1 Comparative income status - self: Item 15
2 Comparative income - father: Item 18
3 Comparative social class - self: Item 24
4 Comparative social class - father: Item 25
5 Comparative education - self: Item 27
6 Comparative education - father: Item 28

I. Religiousity Questionnaire (Q'aire)

1 Religious affiliation: Item 19
2 Perceived importance: Item 20
3 Perceived norm conformity: Item 38

J. Personalism Questionnaire (Q'aire)

1 Orientation toward job personalism
a Statement of extent of personalism on job: Item 21
b Perceived importance of personal relations: Item 22
2 Diffusion of personal relationships
Percent of job-social overlap: Item 23
3 Familialism: Item 50, (Son's work)
4 Other orientation: Altruism: Item 51

K. Attitudes Toward Change (Q'aire)

1 Health practices (water): Item 29
2 Child-rearing practices: Item 40
3 Birth control practices: Item 41

4 Political leadership change: Item 43
5 Automation: Item 42
6 Self Conception
Item 47 (Perceived self-rigidity)
Item 48 (Adherence to rules)
Item 49 (Job regularity and rigidity)
7 Future orientation
Item 52 (Planning - personal)
Item 53 (Requisites for happiness)
Item 54 (Achievement of happiness)

L. Attitudes Toward Handicapped Persons

1 Handicapped Persons Scale, Items 1-20 - Content
Raw Score total
Adjusted total score (dichotomized)
2 Handicapped Persons Scale, Items 1-20 - Intensity
Raw Score total
Adjusted total score (dichotomized)

M. Contact with Handicapped Persons

1 Kinds of handicapped persons experienced
P.Q.-HP, Item 1 (most contact)
P.Q.-HP, Item 2 (additional contacts - no. of)
2 Varieties of relationship with handicapped
P.Q.-HP, Item 3
3 Frequency of contact with physically handicapped
P.Q.-HP, Item 4
4 Ease of avoidance of contacts with handicapped
P.Q.-HP, Item 5
5 Personal gain through working with handicapped persons
P.Q.-HP, Item 6 (experienced gain)
P.Q.-HP, Item 7 (% of income)
6 Alternative opportunities available
P.Q.-HP, Item 9 (refers to other possible employment)
7 Enjoyment of contact with physically handicapped
P.Q.-HP, Item 8
8 Frequency of contact with mentally retarded persons
P.Q.-HP, Item 10
9 Frequency of contact with emotionally disabled persons
P.Q.-HP, Item 11

APPENDIX B-3

Rationale and Procedures for Producing Item Directionality

Rationale and Procedures for Producing Item "Directionaly" in the Following Scales:

1. Handicapped Persons Scale
2. Hearing Handicapped Persons Scale
3. Blind Persons Scale

John E. Jordan
John E. Felty

September 30, 1965

1. The rationale for reversing content scoring on the HP scale items 2, 5, 6, 11, 12.

   a. All of the other items of the scale state either a difference between HP's and others, or a negative characteristic--therefore, agreement with these items indicates less acceptance (according to Yuker-Block).

   b. The 5 items mentioned above are statements of similarity between HP's and others, therefore, agreement indicates more acceptance. In order to make the "direction" of acceptance the same for all items, the scoring was reversed on these 5, so that people who disagreed with statements of similarity would get a higher score.

   c. After this reversal, high scores on each of the items is supposed to indicate less acceptance.

   d. In the dichtomoization procedure (Felty, by hand) there was a final reversal of scoring on all items in order to make a high (1) score be favorable, and a low (0) score unfavorable for each item. It is, of course, not necessary to make this final step, but it is more convenient for my thinking, and a more usual procedure, to make more favorable scores higher.

2. For Dickie and Weir, the positively-stated items are not all precise statements of similarity, but the items can be divided into those in which agreement with the item indicates unfavorable attitudes, and those in which agreement indicates favorable attitudes. This is by inspection, of course, and it is possible that empirical test could indicate that a given item was placed in the wrong category. Such an item would probably scale negatively with the others, and scoring would have to be reversed for this item in computing total scores for each subject.

   This question is independent of the question of whether a high total score indicates favorable or unfavorable attitudes, which is a question of item content. If you want a high total score to indicate favorable attitudes, (see 1,d above), one way would be to follow Felty's procedure on the H-P scale (as outlined above and in the code book). However, if the computer dichotomization is used, it will be necessary to reverse the total scores after the dichotomized total scores have been computed for each person for scale items (this is a hand procedure based on new dichotomized totals--either machine or hand-dichotomized--and takes place as the last two operations

in the "scale and intensity analysis" subsection of the "flow and control chart." That is, after scaling, even by computer, someone still has to figure out the new total scores for each respondent for each "scale," enter these into unused columns of the data sheet, and then have them punched into Deck 1 for further analysis.) If after dichotomization, total scores ranged from 0 to 20 (possible with 20 dichtomoized statements scored 0,1) and high scores indicate unfavorable attitudes, the scoring can be reversed by making up an equivalence table to transpose the scores; e.g.,

Total Scores

Dichotomized "Unfavorable"	Reversed "Favorable"
20	0
19	1
18	2
17	3
etc.	etc.

Another way of doing this would avoid the necessity of making two sets of reversals; i.e., instead of reversing the similarity-type items (see above, 1.b), reverse the others. This means many more items have to be reversed initially in the scoring (Kathy's job) but that no further reversal is necessary since a high score for each item would then presumedly indicate a favorable or accepting response. Although this would be more time-consuming for Kathy, it would save time later and is not as complicated. (Note: it will still be necessary to obtain new scale item total scores by a hand procedure after dichotomization and scaling as indicated on p. 2).

For the Blind Persons Scale (Dickie) a high score (strong agreement) indicates favorable attitude for items 2, 10, 13, 14, 17, 19.

For the Hearing Handicapped Persons Scale (Weir) a high score (strong agreement) indicates favorable attitude for items 1, 7, 10, 15.

If the scores are reversed for these items, a high total score will indicate unfavorable or unaccepting attitudes, and a further reversal following dichotomization would

be advisable (as on pages 1 and 2). If scores are reversed for all other items, a high total score will indicate favorable or accepting attitudes, and no further reversal will be necessary.

3. For Sinha (Emotionally Disturbed Persons Scale-EDP) the procedures follow exactly those of Felty for the HP scale. (See pages 1-10 of codebook number 865).

4. Following is a summary of the above procedures to be used by all studies:

   a. in initial scoring, reverse favorably stated items (usual procedure) i.e., those items mentioned specifically by number.

   b. submit for dichotomization and scale analysis by computer.

   c. for scale items obtain new total scores for each respondent.[1]

   d. convert these total scores by inverting the order (e.g., bottom of page 2). High score now indicates favorable attitude.

   e. enter scale scores (converted) onto data sheets in open columns.

   f. have scale scores punched into Deck 2 at data processing.

   g. use new scale score totals in subsequent analyses (Anova, MRA, etc.).

   h. since the intensity items are all clearly directional, from low to high intensity, there would be no reason for making any reversals.

---

[1]As mentioned before, a possible complication can arise with items which scale negatively with the other items in the Lingoes procedure. This would seem to indicate that the prejudgment about whether the item was "favorable" or "unfavorable" was in error, and would require a reversal of scoring for this item in obtaining a total scale score. That is, all "0's" would be scored as "1's" and vice versa (as Lingoes states it, the item has been "reflected").

John E. Jordan
John E. Felty

APPENDIX B-4

(a) International Study

(b) Special Instructions for Tiffin Study

CODE BOOK

CROSS CULTURAL ATTITUDES TOWARD EDUCATION: THEIR NATURE AND DETERMINANTS

INTERNATIONAL STUDY*

John E. Jordan
College of Education
Michigan State University
August 25, 1965

INSTRUCTIONS FOR THE USE OF THIS CODE BOOK

1. Code 0 or 00 will always mean Not Applicable or Nothing, except as noted.

2. Code + for a one column no response, or -9 for a two column no response, or -99 for a three column no response will mean there was No Information or Respondent did not answer.

3. In each case in the following pages the column to the left contains the column number of the IBM card; the second column contains the question number from the questionnaire; the third column (item detail) contains an abbreviated form of the item; and the fourth column contains the code within each column of the IBM card with an explanation of the code. The fifth column (recode) is reserved to later indicate recoding after the item count is finished; i.e., after all data is key punched, run the data through the M.S.U. computer (ACT II, FCC, and/or Single-Column Frequency Distributions) to determine the patterns of response alternatives to a question. This will indicate if regrouping, etc., need to be considered for the item.

4. Coder instructions always follow a line across the page and are clearly indicated.

5. In some cases when codes are equal to others already used, they are not repeated each time, but reference is made to a previous code or the immediately previous code with "same".

6. Under Code, the first number is the questionnaire question alternative and the second number is the actual code which is entered on the data sheets (i.e., 1-4; one 1 is the questionnaire question alternative and 4 is the code).

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* This code book is specifically for the United States sample thru Card 4. Limited modifications and/or additions are made in certain nations and/or states. Special instructions are appended for each study before scoring that sample.

Col

1,2

865

Column-Ques.	Item Detail	Code	Recode*
1,2,3 Face Sheet	Nation and Location	UNITED STATES 001 - Mich., Mt. Pleasant 002 - Mich., Cadillac 003 - Mich., Ann Arbor 004 - Mich., Port Huron 005 - Mich., Lansing 006 - Mich., Walden Woods 007 - Mich., Flint 008 - Mich., Misc., Kal., Mid. 009 - Kansas, Wichita 010 - Ohio, Tiffin 011 - West Virginia 012 - Kentucky 013 - Georgia LATIN AMERICA 101 - Costa Rica 102 - Colombia 103 - Peru 104 - Argentina 105 - Mexico 106 - Surinam EUROPE 201 - England 202 - Holland 203 - Belgium 204 - France 205 - Yugoslavia 206 - Denmark 207 - Germany ASIA 301 - Israel 302 - Japan 303 - India 304 - Formosa AFRICA 401 - Kenya 402 - Rhodesia 403 - South Africa	

Column-Ques.		Item Detail	Code	Recode*
4,5	Face Sheet	Group Number (administration)	01 - 99 Check Special Instructions	
6,7	Face Sheet	Respondent Number	01 - 99	
8	Face Sheet	Sex of Respondent	1 - Masculine 2 - Feminine	
9	(Code derived from Col's 22, 23, Card 1)	Occupational Recode (Interest group)	1 - Code 01 - 09, Rehab., Spec. Ed. 2 - Code 10 - 19, Education 3 - Code 20 - 45, Professional, Business, Medical 4 - Code 50 - 86, White Collar, Blue Collar, Laborer	
10	New	Occupational Recode (Spec. Ed., Rehab. SER)*	1 - Teacher, Educable Retarded, (Type A and Type C) 2 - Teacher, Trainable Retarded (Type B) 3 - Teacher, Hearing 4 - Teacher, Vision 5 - Speech Correction 6 - Visiting Teacher (Also Social Worker) 7 - Diagnostician 8 - Other (Professors, Supts., Administrators, etc.) + - Non-teacher	
11,12	Face Sheet	Deck or Card Number	01	
13,14	Face Sheet	Project Director, location and content area	LATIN AMERICA 01 Felty: Costa Rica (total - pilot study) 02 Friesen: Peru and Colombia (total) 03 Taylor: Costa Rica (country study)	

* If respondent is not an SER "educational person", he received a +.

Column-Ques.	Item Detail	Code	Recode*
13,14 Face Sheet (continued)		UNITED STATES 31 Sinha: Ohio (parents-M. R., emot. dist. and normal) 32 Dickie: Kansas (total and blind scale) 33 Weir: Kansas (total and deaf scale) 34 Mader: Michigan (special educ. - intra) 35 Jordan: Michigan - Mt. Pleasant (Spec. Ed.) ASIA 51 Cessna: Japan (total plus university students and government employees) EUROPE 71 Boric: Yugoslavia (total) 72 Fabia: France (total) 73 Hansen: Denmark (total) 74 Loring: England (total) 75 Robaye: Belgium (total) 76 Schweizer: Netherlands (total) 77 Kreider: Europe (total)	
15,16 Face Sheet	Day of Administration (Use the actual day)	01 to 31	
17,18 Face Sheet	Month of Administration	01 - January 02 - February 03 - March . .	

Column-Ques.	Item Detail	Code	Recode*
17,18 Face Sheet (continued)		10 - October 11 - November 12 - December	
19,20 Face Sheet	Year of Administration	64 - 1964 65 - 1965 66 - 1966 . . 70 - 1970	
21 Face Sheet	Type of Administration	1 - Group 2 - Self-administered 3 - Interview, individual + - No information	
22,23 37 Q'aire	Occupation of Respondent* (Specific)	(01 - 09) Rehab. & Spec. Ed. 01 - All administrative persons, public and private schools or agencies 02 - Teachers, elem. and secondary academic and vocational 03 - School Special Services (Psych., soc. work, speech, etc.) 04 - University teachers, professors, researchers, specialists, etc. 05 - Medical (Doctors, Dentists, etc.) 06 - Other professional (Psych., Soc. worker, Speech, etc., not primarily in public or private schools) 07 - Para-medical (Nurse, O.T., R.T., P.T., ect.) 08 - Unskilled Help (Hospital aide, janitor, any non-prof., non-tech. role) 09 - Other	

* See page 4-2

Column-Ques.	Item Detail	Code	Recode*
22,23 37 Q'aire (continued)	Occupation of Respondent* (Specific)	(10 - 19) Educational personnel other than Rehab. and Spec. Ed. 10 - Elementary teachers, (include elem. v.p.'s, counselors, etc.) 11 - Secondary teachers 12 - Guidance and personnel workers (psych., social work, counselor if not elementary) 13 - Other special services (Speech, spec. teacher, audiometric, etc.) 14 - Administrative (elem., sec., central office adm., including elem. principal, sec. v.p. and princ., etc., in non-teach.) 15 - University teachers, professors, researchers, specialists, etc. 16 - 19 Open (20 - 29) Medical, other than Rehab. and Spec. Ed. 20 - General practitioners 21 - Surgeons 22 - Psychiatrists or psychoanalysts 23 - Dentists 24 - All other medical specialties 25 - Open 26 - Tech. and Prof.: Nurse, O.T., P.T., R.T., Audio, etc. 27 - Non-tech. and non-prof.: aide, janitor, attendant, etc. 28 - 29 Open	

*See page 4-2

Column-Ques.	Item Detail	Code	Recode*
22,23 37 Q'aire (continued)	Occupation of Respondent* (Specific)	(30 - 39) Professional and Technical, not Spec. Ed. and Rehab. or Medical or Educ. 30 - Engineers (degrees): civil, electrical, mechanical, etc. 31 - Lawyers, attorneys, public accountants 32 - Ministers, clergymen 33 - Musicians 34 - Clinical psychologist 35 - Researchers, scientists, not primarily in education 36 - Social workers, etc. 37 - 39 Other (40 - 45) Business and Industry, Managers, officials, prop.'s 40 - Gov't and other bureaucratic officials: public administrators and officers, union officials, stage inspectors, public utility, telephone officials, etc. 41 - Manufacturing, industrial officials, exec's, etc. 42 - Non-mfg., service, industry: bankers, brokers, insurance, real estate 43 - Retail trades: food, clothing, furniture, gasoline, vehicle sales, etc. 44 - General: i.e., manager executive, etc., no other qualifications 45 - Open (46 - 49) Farm owners, operators and managers of large farms, e.g., heavy equipment and/or many empl.	

* See page 4-2

Column-Ques.	Item Detail	Code	Recode*
22,23 37 Q'aire (continued)	Occupation of Respondent* (Specific)	46 - Farm owner 47 - Farm operator (renter) 48 - Farm manager 49 - Open (50 - 59) White Collar: office, clerical, etc. 50 - Clerical and similar: tellers, bookkeepers, cashiers, secretaries, shipping clerks, attendants, telephone operators, library asst's, mail clerks and carriers, file clerks, etc. 51 - Sales workers: advertising, sales clerks, all mfg., wholesale, retail and other 52 - Small shopkeeper or dealer 54 - 59 Open (60 - 69) Blue Collar: craftsmen, foremen, and kindred work 60 - Craftsmen: carpenters, bakers, electricians, plumbers, machinists, tailors, toolmakers, photographers, etc. 61 - Foremen: all construction, mfg., transportation and communication, and other industries 62 - Servicemen: telegraph, telephone, etc. 63 - Mechanics and repairmen 64 - Shoemakers, roofers, painters, and plasterers 65 - Merchant marine, sailors (non-military)	

* See page 4-2

Column-Ques.	Item Detail	Code	Recode*
22,23 37 Q'aire (continued)	Occupation of Respondent* (Specific)	66 - Bus and cab drivers, motormen, deliverymen, chauffeurs, truck and tractor drivers 67 - Operatives of all other mech. equipment (machine, vehicle, misc. mfg.) 68 - 69 Open (70 - 74) Serivce and Private Household workers) 70 - Private household: laundress, housekeeper, cook 71 - Firemen and policemen, sheriffs, and baliffs 72 - Attendents, professional and personal (valet, masseur, misc. mfg.) 73 - Misc. attendents and services: hospital attendents, bootblacks, cooks 74 - Open (75 - 79) Military Personnel 75 - Ranking officers, all services (Navy Commander and up, Army and Marines Colonel and up) 76 - Junior Officers, Army and Air 77 - Junior Officers, Navy and Marines 78 - Non-commissioned personnel, Army and Air 79 - Non-commissioned personnel, Navy and Marines (80 - 86) Laborers	

* See page 4-2

Column-Ques.	Item Detail	Code	Recode*
22,23 37 Q'aire (continued)	Occupation of Respondent* (Specific)	80 - Small farm owners, renters, and farm laborers (small farm has no heavy equipment, provides minimal income and substance, employs 3 or less persons, full or part time, except for migrant help)	
		81 - Non-mfg., non-industrial: fishermen, hunters, lumbermen, miners, gardeners, teamsters, garage laborers, etc.	
		82 - Manufacturing of durable goods: wood, clay, stone (stonecutter), metal, glass plastic, machinery, of all kinds	
		83 - Mfg. of non-durable goods: food (bakery, beverages, etc.), tobacco, clothing, cloth, paper, printing, chemicals, rubber, leather, etc.	
		84 - Non-mfg. industries: railroad, construction, transportation, workers, etc.	
		85 - 86 Open	
		(87) No employment	
		87 - Persons that haven't worked, such as housewives, students or others who have never had a regular occupation	

* Instructions for Coder: OCCUPATIONS, COLUMNS 22-23. Coding information is derived from two sources:

1. Occupational description of groups as listed by the administrator.
2. Personal statements by the respondents in Question 37 of the questionnaire. Question 37 is the primary source of information. If vague or incomplete, score entirely from notes of administrator.

* See page 4-2

Column-Ques.		Item Detail	Code	Recode*
24	37 Q'aire	Current Employment Status*	1 - Employed or self-employed 2 - Retired 3 - Temporarily out of work 4 - Housewife, but formerly employed 5 - Unable to work (other than retired or housewife) but formerly employed 6 - Student or persons trained for employment but not working for various reasons	
25 thru 44	1 thru 20 H-P Content**	All questions in handicapped persons scale are to be scored from raw data. See instructions below.	1 - 1, strongly disagree 2 - 2, disagree 3 - 3, agree 4 - 4, strongly agree	

* Instructions for Coder: EMPLOYMENT STATUS, COLUMN 24. Code from questionnaire Question 37 if person clearly states employment status. If no employment stated, and no indication with certainty from the administrator, score +.

** Instructions for Coder: HANDICAPPED PERSONS SCALE SCORING, COLUMNS 25-44.

NOTE: CERTAIN STEPS AND PROCEDURES ARE THE SAME FOR THE EDUCATION SCALE AS FOR THE HANDICAPPED PERSONS SCALE. THESE PROCEDURES WILL BE WRITTEN IN CAPITAL LETTERS.

The content part of the question is the first half of the question (i.e., the first score).

1. Reverse the content response numbering for the Handicapped Persons Scale (NOT the intensity response number) for items 2, 5, 6, 11, and 12, as follows:

The number of response 1 is changed to 4 and scored directly on data sheets.
2 3
3 2
4 1

Column-Ques.	Item Detail	Code	Recode*

2. Special instructions for NO RESPONSE. Count the number of NO RESPONSE items, if more than 6 occur, do not score respondent for this scale. If there are 6 or less in total, and 3 or less in sequence, the NO RESPONSE statement is to be scored either 1 or 2 by the random procedure of coin flipping.

   If a head is obtained, the score assigned will be 1.
   If a tail is obtained, the score assigned will be 2.

3. TOTAL THE RAW SCORES FOR EACH RESPONDENT AND WRITE THE TOTALS ON THE TRANSCRIPTION DATA SHEET DIRECTLY BELOW THE COLUMN TOTALED.*

4. INTENSITY RAW SCORES FOR EACH STATEMENT ARE TO BE SCORED ON THE DATA SHEET EXACTLY AS THEY APPEAR ON THE QUESTIONNAIRE: i.e., IF 1 IS CIRCLED IN THE INTENSITY SECTION OF QUESTION ONE, SCORE IT AS 1 ON THE CORRESPONDING SECTION OF THE TRANSCRIPTION SHEET.

5. Dichotomization Procedures (i.e., for MSA - applied to all scales).

   a) Using raw data scores (i.e., the actual number circled by the respondent) via the Hafterson CUT Program on the M.S.U. CDC 3600, determine the point of least error for each item on the content scales.

   b) Using this point (i.e., between 1 and 2, or between 2 and 3 or between 3 and 4) rescore the items, via recode cards, as 0, 1 via the Hafterson MSA Program on the M.S.U. CDC 3600 to determine which items form a scale. Run at both .01 and .05 level.

   c) For Handicapped Persons Scale[1], items are scored 0 above the column break, 1 below the column break. For education Scale scoring, the reverse is true: items are scored 1 above the column break, 0 below the column break.

   d) Using the same procedure in point 5-a above, determine the CUT points for the intensity component of each item.

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* By this procedure, the possible range of scores is from 0 to 80. Doubling the obtained score will approximate scores obtained by the method of Yuker, et al., (1960, p. 10)

[1] HP scale, blind scale, and deaf scale.

Column-Ques.	Item Detail	Code	Recode*

5. e) Enter the MSA Program with the CUT points for the intensity component and scale as in Point No. 5-b for content.

   f) Adjusted total scores for content and intensity. Sum the dichotomized content and intensity scores (i.e., 0, 1) obtained by the above procedure for each respondent on these items that scaled for both content and intensity. Maximum score will be 1 x the number of the same items that scaled on both content and intensity.

   g) Zero Point. Using only the items that scaled for both content and intensity, plot and determine the "zero point" for each cultural group (or other desired groupings) via the method detailed on pages 221-234 by Guttman (1950).

6. Dichotomization Procedure (alternative to no. 5 above). Attempt to program the CUT Program into the MSA so that both procedures under 5-a and b are conducted jointly.

45 thru 64	1 thru 20 H-P Intensity*	Handicapped Persons Scale Intensity	1 - 1, not strongly at all 2 - 2, not very strongly 3 - 3, fairly strongly 4 - 4, very strongly

1. Except for NO RESPONSE, intensity scores are to be determined as noted in the preceding section regarding Content.

2. Those scales which are rejected because of an excess of NO RESPONSE items in respect to content will of course also be rejected for intensity. Intensity questions which are unscored, but which occur when the content part of the question is scored, will be scored as follows:

   If content score is 1 or 4, score intensity 4.
   If content score is 2 or 3, score intensity just below the mean intensity score for that item; i.e. mean intensity of the group.

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* Instructions for Coder: HANDICAPPED PERSONS SCALE, INTENSITY, COLUMNS 45-64. See instructions 1 and 2 above and 3 on the next page.

Column-Ques.	Item Detail	Code	Recode*

3. Intensity questions which are unscored, and which occur when the content part of the question is also unscored, will be scored at the highest point below the respondent's own median on the other intensity questions in the questionnaire; i.e., if respondent generally scored intensity questions either 4 or 3, so that the median was in between 3 and 4, score NO RESPONSE 2, and so forth.

65 thru 74	3,4,6, 10,11 12,13 14,18 19*	Education Scale Traditional, Content Responses **	1 - 1, strongly disagree 2 - 2, disagree 3 - 3, agree 4 - 4, strongly agree

1. Items are to be scored on the transcription sheet as circled by the respondent.

2. Follow the procedures outlined in caps on Pages 1-10, 1-11, and 1-12 for the Handicapped Persons Scale. Be sure to score only those items indicated above as applying to the education traditional scale, content.

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* The traditional and the progressive scales are both in the Kerlinger education scale but the responses are scored separately on the transcription sheet.

** Instructions for Coder: EDUCATION SCALE, TRADITIONAL, CONTENT, COLUMNS 65-74. See instructions 1 and 2 on page 1-13.

Column-Ques.		Item Detail	Code	Recode*
1,2,3	Face Sheet	Nation and Location	Same as Card 1, page 1-1	
4,5	Face Sheet	Group Number	01 - 99	
6,7	Face Sheet	Respondent Number	01 - 99	
8	Face Sheet	Sex of Respondent	Same as Card 1, page 1-2	
9	37 Q'aire	Occupational Recode (Interest group)	Same as Card 1, page 1-2	
10	37 Q'aire	Occupational Recode (Spec. Ed.-Rehab. SER)	Same as Card 1, page 1-2	
11,12	Face Sheet	Deck or Card Number	02	
13,14	Face Sheet	Project Director	Same as Card 1, pages 1-2 and 1-3	
15,16	Face Sheet	Day of Administration	01-31	
17,18	Face Sheet	Month of Administration	01-12	
19,20	Face Sheet	Year of Administration	Same as Card 1, page 1-4	
21	Face Sheet	Type of Administration	Same as Card 1, page 1-4	

Column-Ques.		Item Detail	Code	Recode*
22,23	Face Sheet	Occupation of Respondent	Same as Card 1, pages 1-4 through 1-9	
24	Face Sheet	Current Employment Status	Same as Card 1, page 1-10	
25 thru 34	3,4,6,10, 11,12,13, 14,18,19	Education Scale, Traditional, Intensity Responses*	1 - 1, not strongly at all 2 - 2, not very strongly 3 - 3, fairly strongly 4 - 4, very strongly	
35 thru 44	1,2,5,7, 8,9,15, 16,17,20	Education Scale, Progressive, Content Responses**	1 - 1, strongly disagree 2 - 2, disagree 3 - 3, agree 4 - 4, strongly agree	

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* Instructions for coder: EDUCATION SCALE, TRADITIONAL, INTENSITY, COLUMNS 24-33. Intensity questions are scored as indicated in caps on pages 1-11, 1-12 and 1-13 and as noted before, Handicapped Persons Scale, pages 1-10, 1-11 and 1-12, instructions 1 through 5.

** Instructions for Coder: EDUCATION SCALE, PROGRESSIVE, CONTENT, COLUMNS 34-43.

1. Items are to be scored exactly as circled.

2. Follow the procedures outlined in caps on pages 1-11, 1-12 and 1-13, Handicapped Persons Scale. Be sure to score only those items indicated above as belonging to the education progressive scale content.

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Column-Ques.		Item Detail	Code	Recode*
22,23	Face Sheet	Occupation of Respondent	Same as Card 1, pages 1-4 through 1-9	
24	Face Sheet	Current Employment Status	Same as Card 1, page 1-10	
25 thru 34	3,4,6,10, 11,12,13, 14,18,19	Education Scale, Traditional, Intensity Responses*	1 - 1, not strongly at all 2 - 2, not very strongly 3 - 3, fairly strongly 4 - 4, very strongly	
35 thru 44	1,2,5,7, 8,9,15, 16,17,20	Education Scale, Progressive, Content Responses**	1 - 1, strongly disagree 2 - 2, disagree 3 - 3, agree 4 - 4, strongly agree	

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* Instructions for coder: EDUCATION SCALE, TRADITIONAL, INTENSITY, COLUMNS 24-33. Intensity questions are scored as indicated in caps on pages 1-11, 1-12 and 1-13 and as noted before, Handicapped Persons Scale, pages 1-10, 1-11 and 1-12, instructions 1 through 5.

** Instructions for Coder: EDUCATION SCALE, PROGRESSIVE, CONTENT, COLUMNS 34-43.

1. Items are to be scored exactly as circled.
2. Follow the procedures outlined in caps on pages 1-11, 1-12 and 1-13, Handicapped Persons Scale. Be sure to score only those items indicated above as belonging to the education progressive scale content.

Column-Ques.		Item Detail	Code	Recode*
45 thru 54	1,2,5,7, 8,9,15, 16,17,20	Education Scale, Progressive Intensity Responses*	1 - 1, not strongly at all 2 - 2, not very strongly 3 - 3, fairly strongly 4 - 4, very strongly	
55-56	Raw S score	Value scale, Support score**	01 - 32	
57-58	Raw C score	Value scale, Conformity score**	01 - 32	
59-60	Raw R score	Value scale, Recognition score** (comparative)	01 - 32	
61-62	Raw I score	Value scale, Independence score**	01 - 32	
63-64	Raw B score	Value scale, Benevolence score** (asset)	01 - 32	
65-66	Raw L score	Value scale, Leadership score** (comparative)	01 - 32	

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* Instructions for Coder: EDUCATION SCALE, PROGRESSIVE, INTENSITY, COLUMNS 44-53. Same as instructions for Education Scale, Progressive content, see page 2-2.

** Entries for columns 63-74 are obtained through scoring according to SRA Manual for Survey of Interpersonal Values, Science Research Associates, Inc., 259 East Erie Street, Chicago, Illinois, 1960. For scoring, coders should use the special keys adapted from the SRA English edition of the scale. Although the summed scores of the six value scales should total 90, scores between 84 and 95 are "acceptable."

Column-Ques.		Item Detail	Code	Recode*
67-68	Sum of item scores, 1-20, Content	Adjusted totals based on item dichotomization, H.P. Scale, Content*	(Check dich. for no. to use here) Code will be: 00 or +9 to obtained score	
69-70	Sum of item scores, 1-20, Intensity	Adjusted totals based on item dichotomization, H.P. Scale, Intensity*	(Check dich. for no. to use here) Code will be: 00 or +9 to obtained score	
71-72	Sum of item scores, 3, 4,6,10,11, 12,13,14, 18,19	Adjusted totals based on item dichotomization Education Traditional Scale, Content*	(Check dich. for no. to use here) Code will be: 00 or +9 to obtained score	
73-74	Sum of item scores, 3, 4,6,10,11, 12,13,14, 18,19	Adjusted totals based on item dichotomization Education Traditional Scale, Intensity*	(Check dich. for no. to use here) Code will be: 00 or +9 to obtained score	

* See Card 1, page 1-12, instruction no. 5-f, to ascertain how adjusted total scores are obtained.

Column-Ques.		Item Detail	Code	Recode*
75-76	Sum of item scores, 1, 2,5,7,8,9, 15,16,17,20	Adjusted totals based on item dichotomization Education Progressive Scale, Content*	(Check here) dich. for no. to use Code will be: 00 or +9 to obtained score	
77-78	Sum of item scores, 1, 2,5,7,8,9, 15,16,17,20	Adjusted totals based on item dichotomization Education Progressive Scale, Intensity*	(Check here) dich. for no. to use Code will be: 00 or +9 to obtained score	

* See Card 1, page 1-12, instruction No. 5-f, to ascertain how adjusted total scores are obtained.

Column-Ques.		Item Detail	Code	Recode*
1,2,3	Face Sheet	Nation and Location	Same as Card 1, page 1-1	
4,5	Face Sheet	Group Number	01-99	
6,7	Face Sheet	Respondent Number	01-99	
8	Face Sheet	Sex of Respondent	Same as Card 1, page 1-2	
9	37 Q'aire	Occupational Recode (Interest group)	Same as Card 1, page 1-2	
10	New	Occupational Recode (Spec. Ed.-Rehab. SER)	Same as Card 1, page 1-2	
11,12	Face Sheet	Deck or Card Number	03	
13,14	Face Sheet	Project Director	Same as Card 1, pages 1-2 and 1-3	
15,16	Face Sheet	Day of Administration	01-31	
17,18	Face Sheet	Month of Administration	01-12	
19,20	Face Sheet	Year of Administration	Same as Card 1, page 1-4	
21	Face Sheet	Type of Administration	Same as Card 1, page 1-4	

Column-Ques.		Item Detail	Code	Recode*
22,23	Face Sheet	Occupation of Respondent	Same as Card 1, pages 1-4 through 1-9	
24	Face Sheet	Current employment status	Same as Card 1, page 1-10	
25,26	1 Q'aire	Contact group (Educ.)	Primary 1 - 01, Elem. School 2 - 02, Sec. School 3 - 03, University 4 - 04, Other as specified 5 - 05, No experience	
27,28	2 Q'aire	Contact group (Educ.)	Secondary 1 - 01 2 - 02 3 - 03 4 - 04 5 - 05	SAME
29,30	3 Q'aire	Educational Contact (Varieties)	1 - 01 Know nothing about Ed 2 - 02 Read little about Ed 3 - 03 Studied about Ed 4 - 04 Neighbor works 5 - 05 Friend works 6 - 06 Relative works 7 - 07 Family works 8 - 08 I work in Ed 9 - 09 Other	

(1) If any combination of alternatives 1, 2 and 3 are circled, code as 10, Impersonal Contact

(2) If any combination of alternatives 4-8 are circled, code as 11, Personal Contact.

(3) If alternatives are circled in both division, code as 12, Both Impersonal and Personal Contact. This requires coding alternative OTHER (i.e., alternative 9) as either personal or impersonal contact; i.e., according to its content.

Column-Ques.		Item Detail	Code	Recode*
31	4 Q'aire	Amount of Contact (Educ.)	1 - 1, less than 3 months 2 - 2, 3 months to 6 months 3 - 3, 6 months to 1 year 4 - 4, 1 year to 3 years 5 - 5, 3 years to 5 years 6 - 6, 5 years to 10 years 7 - 7, over 10 years 8 - 8, over 15 years	
32	5 Q'aire	Percent of income from Education	1 - 1, less than 10% 2 - 2, 10 to 25% 3 - 3, 25 to 50% 4 - 4, 50 to 75% 5 - 5, 75 to 100%	
33	6 Q'aire	Enjoyment of Educational Work	1 - 2, disliked 2 - 3, not much 3 - 4, somewhat 4 - 5, enjoyed	
34	7 Q'aire	Alternative work (to educ.)	1 - 1, no information 2 - 2, unavailable 3 - 3, not acceptable 4 - 4, not quite acceptable 5 - 5, acceptable	
35,36	8 Q'aire	Age	20 - 20 years 21 - 21 years . . 40 - 40	
37	9 Q'aire	Community in which reared. If more than one is checked try to determine in which one the respondent spent most of the time. If	1 - 1 country 2 - 2 country town 3 - 3 city 4 - 4 city suburb	

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Column-Ques.		Item Detail	Code	Recode*
37 (continued)	9 Q'aire	impossible, try to choose a median (i.e. country, city, score country town)		
38	10 Q'aire	Employment community (recent)	1 - 1, country 2 - 2, country town 3 - 3, city 4 - 4, city suburb	
39	11 Q'aire	Recent Residence	1 - 1, country 2 - 2, country town 3 - 3, city 4 - 4, city suburb	
40	12 Q'aire	Marital Status	1 - 1, married 2 - 2, single 3 - 3, divorced 4 - 4, widowed 5 - 5, separated	
41,42	13 Q'aire	Number of children. If blank, check Ques. 13. If single, score 00; if married, score -9.	1 - 01 2 - 02 3 - 03 . 10 - 10	
43,44	14 Q'aire	Yearly Income (self-family) (for other nations see Special Instructions)	UNITED STATES 01 - less than $1,000 02 - $1,000 to $1,999 03 - $2,000 to $2,999 . 10 - $9,000 to $9,999	

Column-Ques.		Item Detail	Code	Recode*
45	15 Q'aire	Comparative Income (self-family)	1 - 1, much lower 2 - 2, lower 3 - 3, about the same 4 - 4, higher 5 - 5, much higher	
46,47	16 Q'aire	Brothers. If the respondent answers only one question (17 or 18) and other is blank, assume it to be zero.	1 - 01 2 - 02 3 - 03 . . 10 - 10	
48,49	17 Q'aire	Sisters	Same as number of brothers	
51,51	None	Siblings - Obtain by summing above Questions 16 and 17, Col's 45, 46 and 47, 48	1 - 01 . . 15 - 15	
52	18 Q'aire	Fathers' Income: Comparative	1 - 1, much lower 2 - 2, lower 3 - 3, about the same 4 - 4, higher 5 - 5, much higher	
53	19 Q'aire	Religious Affiliation	1 - 1, Roman Catholic 2 - 2, Protestant 3 - 3, Jewish 4 - 4, None 5 - 5, Other 6 to 9, Other major religions	

Column-Ques.		Item Detail	Code	Recode*
54	20 Q'aire	Religion (Importance)	1 - 1, No religion 2 - 2, Not very 3 - 3, Fairly 4 - 4, Very	
55	21 Q'aire	Personaliam (job-amount)	1 - 1, none 2 - 2, no contact 3 - 3, less than 10% 4 - 4, 10 to 30% 5 - 5, 30 to 50% 6 - 6, 50 to 70% 7 - 7, 70 to 90% 8 - 8, over 90%	
56	22 Q'aire	Personalism (job-importance of)	1 - 1, not at all 2 - 2, not very 3 - 3, fairly 4 - 4, very	
57	23 Q'aire	Personalism (job-diffusion)	1 - 1, none 2 - 2, less than 10% 3 - 3, 10 to 30% 4 - 4, 30 to 50% 5 - 5, 50 to 70% 6 - 6, 70 to 90% 7 - 7, over 90%	
58	24 Q'aire	Social Class Position (Self)	1 - 1, lower 2 - 2, lower middle 3 - 3, middle 4 - 4, upper middle 5 - 5, upper	
59	25 Q'aire	Social Class Position (Father)	Same as above	

Column-Ques.		Item Detail	Code	Recode*
60	26 Q'aire	Education (Self-amount). If more than one is circled, choose the highest amount or determine the appropriate an answer.	1 - 1, three years or less 2 - 2, six years or less 3 - 3, nine years or less 4 - 4, twelve years or less 5 - 5, some college 6 - 6, degree 7 - 7, work beyond degree 8 - 8, advanced degree	
61	27 Q'aire	Education (Self-comparative)	1 - 1, much less 2 - 2, less 3 - 3, average 4 - 4, more 5 - 5, much more	
62	28 Q'aire	Education (Father - comparative)	1 - 1, much less 2 - 2, less 3 - 3, average 4 - 4, more 5 - 5, much more	
63	29 Q'aire	Housing (type of)	1 - 1, rent house 2 - 2, rent apartment 3 - 3, rent room 4 - 4, purchase room and board 5 - 5, own apartment 6 - 6, own house 7 - 7, other	
64	30 Q'aire	Housing (rental-month) (for other nations see Special Instructions)	UNITED STATES 1 - $20 or less 2 - 21 - 40 (dollars) 3 - 41 - 75 4 - 76 - 125 5 - 126 - 200 6 - 201 - 300 7 - 300 or more	

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Column-Ques.		Item Detail	Code	Recode*
65	31-A Q'aire	Institutional Satisfaction Elementary Schools	1 - 3 do not know 2 - 1 poor 3 - 2 fair 4 - 4 good 5 - 5 excellent	
66	31-B Q'aire	Institutional Satisfaction Secondary Schools	Same	
67	31-C Q'aire	Institutional Satisfaction Universities	Same	
68	31-D Q'aire	Institutional Satisfaction Businessmen	Same	
69	31-E Q'aire	Institutional Satisfaction Labor	Same	
70	31-F Q'aire	Institutional Satisfaction Government (local)	Same	
71	31-G Q'aire	Institutional Satisfaction Government (National)	Same	
72	31-H Q'aire	Institutional Satisfaction Health Services	Same	
73	31-I Q'aire	Institutional Satisfaction Churches	Same	

Column-Ques.		Item Detail	Code	Recode*
74	32 Q'aire	Residency (current length)	1 - 1, less than a year 2 - 2, one to two years 3 - 3, three to six years 4 - 4, seven to ten years 5 - 5, over ten years	
75	33 Q'aire	Residency (change-recent)	1 - 1, yes 2 - 2, no	

Column-Ques.		Item Detail	Code	Recode*
1,2,3	Face Sheet	Nation and Location	Same as Card 1, page 1-1	
4,5	Face Sheet	Group Number	01 - 99	
6,7	Face Sheet	Respondent Number	01 - 99	
8	Face Sheet	Sex of Respondent	Same as Card 1, page 1-2	
9	37 Q'aire	Occupational Recode (Interest group)	Same as Card 1, page 1-2	
10	New	Occupational Recode (Spec. Ed.-Rehab. SER)	Same as Card 1, page 1-2	
11,12	Face Sheet	Deck or Card Number	04	
13,14	Face Sheet	Project Director	Same as Card 1, pages 1-3 and 1-3	
15,16	Face Sheet	Day of Administration	01-31	
17,18	Face Sheet	Month of Administration	01-12	
19,20	Face Sheet	Year of Administration	Same as Card 1, page 1-4	
21	Face Sheet	Type of Administration	Same as Card 1, page 1-4	

Column-Ques.		Item Detail	Code	Recode*
22,23	Face Sheet	Occupation of Respondent	Same as Card 1, pages 1-4 through 1-9	
24	Face Sheet	Current Employment Status	Same as Card 1, page 1-10	
25	34 Q'aire	Job change (recent)	1 - 1, yes 2 - 2, no	
26	35 Q'aire	Residency (change frequency) (i.e., last ten years)	1 - 1, none 2 - 2, one time 3 - 3, two to three times 4 - 4, four to six times 5 - 5, seven to ten times 6 - 6, over ten times	
27	36 Q'aire	Job (change frequency) (i.e., last ten years)	1 - 1, none 2 - 2, one time 3 - 3, two to three times 4 - 4, four to six times 5 - 5, seven to ten times 6 - 6, over ten times	
28,29	37 Q'aire	Occupation (Specific)	Same as Card 1, pages 1-4 through 1-9	
30	38 Q'aire	Religiousity (norm conformity)	1 - 1, no religion 2 - 2, seldom 3 - 3, sometimes 4 - 4, usually 5 - 5, almost always	
31	39 Q'aire	Change Orientation (Health Practices)	1 - 1, no 2 - 2, probably not 3 - 3, maybe 4 - 4, yes	
32	40 Q'aire	Change Orientation (Child Rearing)	1 - 1, strongly disagree 2 - 2, slightly disagree 3 - 3, slightly agree 4 - 4, strongly agree	

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Column-Ques.		Item Detail	Code	Recode*
33	41 Q'aire	Change Orientation (Birth control Practices)	1 - 1, always right 2 - 2, usually right 3 - 3, probably wrong 4 - 4, always wrong	
34	42 Q'aire	Change Orientation (Automation)	1 - 1, strongly disagree 2 - 2, slightly disagree 3 - 3, slightly agree 4 - 4, strongly agree	
35	43 Q'aire	Change Orientation (Political Leaders)	1 - 1, strongly disagree 2 - 2, slightly disagree 3 - 3, slightly agree 4 - 4, strongly agree	
36	44 Q'aire	Education (aid to - local)	1 - 1, strongly disagree 2 - 2, slightly disagree 3 - 3, slightly agree 4 - 4, strongly agree	
37	45 Q'aire	Education (aid to - federal)	1 - 1, strongly disagree 2 - 2, slightly disagree 3 - 3, slightly agree 4 - 4, strongly agree	
38	46 Q'aire	Education (planning responsibility)	1 - 1, only parents 2 - 2, only city or local government 3 - 3, primarily federal government	
39	47 Q'aire	Change Orientation (self)	1 - 1, very difficult 2 - 2, somewhat difficult 3 - 3, slightly easy 4 - 4, very easy	
40	48 Q'aire	Change Orientation (self-role adherence)	1 - 1, agree strongly 2 - 2, agree slightly 3 - 3, disagree slightly 4 - 4, disagree strongly	

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Column-Ques.		Item Detail	Code	Recode*
41	49 Q'aire	Change Orientation (self-routine job)	1 - 1, agree strongly 2 - 2, agree slightly 3 - 3, disagree slightly 4 - 4, disagree strongly	
42	50 Q'aire	Personalism (Famialism-Parental ties)	Same	
43	51 Q'aire	Personalism (Other orientation)	1 - 1, disagree strongly 2 - 2, disagree slightly 3 - 3, agree slightly 4 - 4, agree strongly	
44	52 Q'aire	Future Orientation (Planning)	1 - 1, agree strongly 2 - 2, agree slightly 3 - 3, disagree slightly 4 - 4, disagree strongly	
45	53 Q'aire	Future Orientation (Happiness)	1 - 1, nothing 2 - 2, money 3 - 3, friends 4 - 4, job 5 - 5, health 6 - 6, other	
46,47	54 Q'aire	Future Orientation (Happiness possibility)	01 - Nothing 02 - Marriage 03 - Divorce 04 - Friends 05 - Religion (Satisfaction with life) 06 - Money 07 - Job 08 - Education 09 - Health (Mental) 10 - Health (Physical) -9 - No response	

Column-Ques.		Item Detail	Code	Recode*
		HANDICAPPED PERSONS QUESTIONNAIRE		
48	1-Q-HP	HP Contact Group (Primary)	1 - 1, blind 2 - 2, partially blind 3 - 3, deaf (and mute) 4 - 4, partially deaf 5 - 5, crippled 6 - 6, disfigured 7 - 7, spastic 8 - 8, speech 9 - 0, none	
49,50	2-Q-HP	HP Contact Group (Secondary)	00 If there was no contact to and questions are not 08 answered score 0. The score for this question is the score of the response alternatives circled, i.e., scores can range from 0 to 8.	
51,52	3-Q-HP	HP Contact (varieties)	1 - 01, Minimum knowledge 2 - 02, Studied about HP 3 - 03, Friend HP 4 - 04, Relative HP 5 - 05, Worked with HP 6 - 06, Family HP 7 - 07, Self is HP - 08) - 09)* See note below - 10)	
53	4-Q-HP	HP Contact (amount)	1 - 1, less than ten 2 - 2, ten to fifty 3 - 3, fifty to 100 4 - 4, 100 to 500 5 - 5, over 500	

* NOTE: If either or both alternatives 1 and 2 are circled, code as 08 - Impersonal contact. If either or all alternatives 3-7 are circled, code as 09 - Personal contact. If alternatives from both preceding divisions are circled, code as 10 - Impersonal and Personal contact.

Column-Ques.		Item Detail	Code	Recode*
54	5-Q-HP	HP Contact (ease of avoidance)	1 - 1, great difficulty 2 - 2, considerable difficulty 3 - 3, some inconvenience 4 - 4, no inconvenience	
55	6-Q-HP	HP Contact (gain from)	1 - 1, no rewards 2 - 2, paid 3 - 3, credit 4 - 4, paid and credit	
56	7-Q-HP	HP Contact (% income)	1 - 1, less than 10% 2 - 2, 10 to 25% 3 - 3, 25 to 50% 4 - 4, 50 to 75% 5 - 5, over 75%	
57	8-Q-HP	HP Contact (enjoyment)	1 - 1, disliked, great 2 - 2, disliked, little 3 - 3, liked, some 4 - 4, definitely enjoyed	
58	9-Q-HP	HP Contact (alternatives to)	1 - 1, No information on alternatives 2 - 2, No other job available 3 - 3, Other available job NOT acceptable 4 - 4, Other available job acceptable	
59	10-Q-HP	Contact (amount-M.R.)	1 - 1, less than 10 2 - 2, 10 to 50 3 - 3, 50 to 100 4 - 4, 100 to 500 5 - 5, over 500	
60	11-Q-HP	Contact (amount-EDP)	Same	

Column-Ques.		Item Detail	Code	Recode*
61,62	Sum of item scores 1-20 Content	Handicapped Persons Scale Total Content Raw Score, entry on transcription sheet	00-80	
63,64	Sum of item scores 1-20 Intensity	Handicapped Persons Scale Total Intensity Raw Score, entry on transcription sheet	00-80	
65,66	Sum of item scores 3, 4,6,10,11, 12,13,14, 18,19	Education Scale, Traditional Total Raw Content score entry on transcription sheet	00-40	
67,68	Sum of item scores 3, 4,6,10,11, 12,13,14, 18,19	Education Scale, Traditional Total Raw Intensity, score entry on transcription sheet	00-40	

Column-Ques.		Item Detail	Code	Recode*
69,70	Sum of item scores 1, 2,5,7,8, 9,15,16, 17,20	Education Scale, Progressive Total Raw Content score entry on transcription sheet	00-40	
71,72	Sum of item scores 1, 2,5,7,8, 9,15,16, 17,20	Education Scale, Progressive Total Raw Intensity score entry on transcription sheet	00-40	

Tiffin-Ohio (010)

(SPECIAL INSTRUCTIONS)

Card 5 Page S-5-0-1

Column-Ques.		Item Detail	Code	Recode*
1-9	Face Sheet	Nation and Location	Same as Card 1 page 1-1	
10	Face Sheet of Q'aire	Special Education (Occupational Recode)	-1, mothers (SVGC) EDP -2, mothers (BJRC) HP -3, mothers (Mt. Pleasant)Non-SER	
11,12	Face Sheet	Deck or Card Number	05	
13-24	Face Sheet	Nation and Location	Same as Card 1, page 1-1	
25 thru 44	1 thru 20 EDP Content	All questions in EDP Scale are to be scored from raw data. Instructions parallel exactly those of the H-P scale. (Note especially reversals in items 2, 5, 6, 11, and 12.	1-1 strongly agree 2-2 disagree 3-3 agree 4-4 strongly agree	
45 thru 64	1 thru 20 EDP Intensity	Instructions for scoring parallel those of H-P scale. See Card 1-11.	1-1 not strongly at all 2-2 not very strongly 3-3 fairly strongly 4-4 very strongly	
65-66	Sum of item scores 1-20, content (EDP)	Emotionally Disturbed Persons Scale. Total Content Raw score.	00-80	

Tiffin-Ohio (010)

(SPECIAL INSTRUCTIONS)

Card 5 Page S-5-0-2

Column-Ques.	Item Detail	Code	Recode*
67-68 Sum of item scores 1-20 Content (EDP)	EDP Scale. Total Intensity raw score.	00-80	
69-70 Sum of adjusted item scores. Content (EDP)	Adjusted totals based on item dichtomoziation, EDP-Content (1)	00- (Check Dich. for no. to use here). See pp 1-11 for instructions.	
71-72 Sum of adjusted item scores, Intensity (EDP)	Adjusted totals based on item dichtomization EDP-Intensity (1)		

(1) See Card 1, Page 1-11, instructions No. 5-f, to ascertain how adjusted total scores are obtained.

Tiffin-Ohio (010)

(SPECIAL INSTRUCTIONS)

Card 6 Page S-6-0-1

Column-Ques.	Item Detail	Code	Recode*
1-9 Face Sheet	Nation and Location	Same as Card 1, page 1-1	
10 Face Sheet	Special Education (Occupational Recode)	-1, mothers (SVGC) EDP -2, mothers (BJRC) HP -3, mothers (Mt. Pleasant) Non-SER	
11,12 Face Sheet	Deck or Card Number	06	
13-24 Face Sheet	Nation and Location	Same as Card 1 page 1-1	
25 1 EDP Q'aire	Contact with EDP	1-1 yes 2-2 no	
26-27 2 EDP Q'aire	Varieties of Contact with EDP	1-01, Minimum knowledge 2-02, Studied about EDP 3-03, Friend-EDP 4-04, Relative-EDP 5-05, Worked with EDP 6-06, Family EDP 7-07, Self is EDP -08) -09) See note below -10)	

Note: If either or both alternatives 1 and 2 are circled, code as 08 - Impersonal contact. If either or all alternatives 3-7 are circled, code as 09 - Personal contact. If alternatives from both preceding divisions are circles, code as 10 - Impersonal and Personal Contact.

Tiffin-Ohio (010)

(SPECIAL INSTRUCTIONS)

Card 6 Page S-6-0-2

Column-Ques.		Item Detail	Code	Recode*
28	3 EDP Q'aire	Amount of Contact with EDP	1-1, less than ten 2-2, ten to fifty 3-3, fifty to 100 4-4, 100 to 500 5-5, over 500	
29	4 EDP Q'aire	Ease of avoidance of EDP	1-1, great difficulty 2-2, considerable difficulty 3-3, some inconvenience 4-4, no inconvenience	
30	5 EDP Q'aire	Material gain from contact with EDP	1-1, paid 2-2, credit 3-3, no rewards 4-4, paid and credit	
31	6 EDP Q'aire	Per cent of income	1-1, less than 10% 2-2, 10 to 25% 3-3, 25 to 50% 4-4, 50 to 75% 5-5, over 75% -6, if 3 is circled in No. 6 or if they have never worked with EDP	
32	7 EDP Q'aire	Feeling about contact with EDP	1-1, disliked, great 2-2, disliked a little 3-3, liked, some 4-4, definitely enjoyed	
33	8 EDP Q'aire	Alternatives to contact with EDP (i.e. employment)	1-1, no information on alternatives 2-2, no other job available 3-3, available-not acceptable 4-4, available-not quite acceptable 5-5, available-acceptable	

Tiffin-Ohio (010)

(SPECIAL INSTRUCTIONS)

Card 6 Page S-6-0-3

Column-Ques.		Item Detail	Code	Recode*
34	9 EDP Q'aire	Amount of Contact with physically handicapped	1-1, less than 10 2-2, 10 to 50 3-3, 50 to 100 4-4, 100 to 500 5-5, over 500	
35	10 EDP Q'aire	Amount of Contact with mentally retarded	1-1, less than 10 2-2, 10 to 50 3-3, 50 to 100 4-4, 100 to 500 5-5, over 500	

APPENDIX B-5

FCCI and II Variable-Computer Print-Out Code Forms

Tiffin 010

FCC 1 and 2

Variable-computer printout code form

John E. Jordan
College of Education
Michigan State University

1165

FCC I

Field No.	Question	Variable Name	Col.
		Card I	
1	Face Sheet	Nation and Location	3
2	Face Sheet	Sex	8
3	37 Q'aire	Interest Group	9
4	None	Occup. recoder (mothers)	10
5	Face Sheet	Admin. type	21
6	Face Sheet	Employment status	24
7-26	HP Scale	HP Content	25-44
27-46	HP Scale	HP Intensity	46-64
47-56	Ed Scale	Ed. Trad Content	65-74
		Card 2	
First 24 Columns SAME as Card 1 except for Col. 11,12 (i.e. Deck or Card No.)			
57-66	Education Scale	Trad. Education-Intensity	25-34
67-66	Education Scale	Prog. Education-Content	35-44
77-86	Education Scale	Prog. Education-Intensity	45-54
		Card 3	
First 24 Columns SAME as Card 1 except for Col. 11,12 (i.e. Deck or Card No.)			
87	4 Q'aire	Contact (amount-education)	31
88	5 Q'aire	Contact (gain from education)	32
89	6 Q'aire	Contact (enjoyment-education)	33
90	7 Q'aire	Contact (alternatives to ed)	34
91	9 Q'aire	Early Youth Community	37
92	10 Q'aire	Employment Community (recent)	38
93	11 Q'aire	Residence Community (recent)	39
94	12 Q'aire	Marital Status	40
95	15 Q'aire	Income (comparative-self fam.)	45
96	18 Q'aire	Income (father's comparative)	52
97	19 Q'aire	Religious affiliation	53
98	20 Q'aire	Religion (Importance)	54
99	21 Q'aire	Personalism (job-amount)	55
100	22 Q'aire	Personalism (job-importance)	56
101	23 Q'aire	Personalism (job-diffusion)	57
102	24 Q'aire	Social class position (self)	58
103	25 Q'aire	Social class position(father)	59
104	26 Q'aire	Education (self-amount)	60
105	27 Q'aire	Education (self-comparative)	61
106	28 Q'aire	Education (father-comparative)	62
107	29 Q'aire	Housing (type of)	63
108	30 Q'aire	Housing (rental-mouth)	64
109	31A Q'aire	Institutional Satisfaction (elementary schools)	65
110	31B Q'aire	Institutional Satisfaction (secondary schools)	66
111	31C Q'aire	Institutional Satisfaction (universities)	67

Field No.	Question	Variable Name	Col.
112	31D Q'aire	Institutional Satisfaction (businessmen)	68
113	31E Q'aire	Institutional Satisfaction (labor)	69
114	31F Q'aire	Institutional Satisfaction (local government)	70
115	31G Q'aire	Institutional Satisfaction (national government)	71
116	31H Q'aire	Institutional Satisfaction (health service)	72
117	31I Q'aire	Institutional Satisfaction (churches)	73
118	32 Q'aire	Residing (current length)	74
119	33 Q'aire	Residing (change-recent)	75

Card 4

First 24 columns SAME except for Columns 11-12 (i.e. deck or Card No.)

120	34 Q'aire	Job (change-recent)	25
121	35 Q'aire	Residing (change-frequency)	26
122	36 Q'aire	Job (change-frequency)	27
123	38 Q'aire	Religiousity (norm-conformity)	30
124	39 Q'aire	Change orientation (health pr)	31
125	40 Q'aire	Change orientation(child rear)	32
126	41 Q'aire	Change orientation(birth cont)	33
127	42 Q'aire	Change orientation(automation)	34
128	43 Q'aire	Change orientation (political leaders)	35
129	44 Q'aire	Education (aid to-local)	36
130	45 Q'aire	Education (aid to-federal)	37
131	46 Q'aire	Education (planning responsibility)	38
132	47 Q'aire	Change orientation (self)	39
133	48 Q'aire	Change orientation (self-rule adherence)	40
134	49 Q'aire	Change orientation (self-routine job)	41
135	50 Q'aire	Personalism (familialism-parental ties)	42
136	51 Q'aire	Personalism(other orientation)	43
137	52 Q'aire	Future orientation (planning)	44
138	52 Q'aire	Future orientation (happiness prerequisites)	45
139	1-Q-HP	Contact group (primary HP)	48
140	4-Q-HP	Contact (amount of HP)	53
141	5-Q-HP	Contact (ease of avoidance)	54
142	6-Q-HP	Contact (gain from-HP)	55
143	7-Q-HP	Contact (% income from HP)	56
144	8-Q-HP	Contact (enjoyment-HP)	57

Field No.	Question	Variable Name	Col.
145	9-Q-HP	Contact (alternative to HP)	58
146	10-Q-HP	Contact (amount - MR)	59
147	11-Q-HP	Contact (amount-emotional ill)	60

Card 5

First 24 columns SAME except for Col. 11,12 (i.e. Deck or Card No.)

148-167	EDP Scale	EDP total content	25-44
168-187	EDP Scale	EDP total intensity	45-64

Card 6

188	1-EDP Q'aire	Contact with EDP	25
189	3-EDP Q'aire	Contact (EDP, amount)	28
190	4-EDP Q'aire	Contact (EDP, avoidance)	29
191	5-EDP Q'aire	Contact (EDP, gain)	30
192	6-EDP Q'aire	Contact (EDP, % income)	31
193	7-EDP Q'aire	Contact (EDP, enjoyment)	32
194	8-EDP Q'aire	Contact (EDP, alternatives)	33
195	9-EDP Q'aire	Contact (HP, amount)	34
196	10-EDP Q'aire	Contact (MR, amount)	35

FCC II

Field No.	Question	Variable Name	Col.
		Card 1	
1	Face Sheet	Group Number	4,5
2	37 Q'aire	Specific Occupation	22,23
		Card 2	
First 24 Columns SAME as Card 1 except for Col. 11,12 (i.e. Deck or Card No.)			
3	Value Scale	Support Value	55,56
4	Value Scale	Conformity Value	57,58
5	Value Scale	Recognition Value(comparative)	59,60
6	Value Scale	Independent Value	61,62
7	Value Scale	Benevolence Value	63,64
8	Value Scale	Leadership Value (comparative)	65,66
		Card 3	
First 24 Columns SAME as Card 1 except for Col. 11,12 (i.e. Deck or Card No.)			
9	1 Q'aire	Ed. Contact group (primary)	25,26
10	2 Q'aire	Ed. Contact group (secondary)	27,28
11	3 Q'aire	Ed. Contact (varieties)	29,30
12	8 Q'aire	Age	35,36
13	13 Q'aire	Number of children	41,42
14	14 Q'aire	Income(yearly,self,family)	43.44
15	16 Q'aire	Brothers(do not use in FAN etc)	46,47
16	17 Q'aire	Sisters(do not use in FAN,etc)	48,49
17	None	Siblings	50,51
		Card 4	
First 24 Columns SAME as Card 1 except for Col. 11, 12 (i.e. Deck or Card No.)			
18	37 Q'aire	Occupation (specific)	28.29
19	54 Q'aire	Future orientation (happiness possibility)	46,47
20	2-Q-HP	HP Contact group (secondary)	49,50
21	3-Q-HP	HP Contact (varieties)	51,52
22	HP Scale	HP - Total content	61,62
23	HP Scale	HP - Total intensity	63,64
24	ED Scale	Ed. Trad. Content	65,66
25	ED Scale	Ed. Trad. Intensity	67,68
26	ED Scale	Ed. Prog. Content	69,70
27	ED Scale	Ed. Prog. Intensity	71,72

Field No.	Question	Variable Name	Col.
		Card 5	
First 24 Columns SAME as Card 1 except for Col. 11,12 (i.e. Deck or Card No.)			
28	EDP Scale	EDP - Total Content	65,66
29	EDP Scale	EDP - Total Intensity	67,68
		Card 6	
First 24 Columns SAME as Card 1 except for Col. 11,12 (i.e. Deck or Card No.)			
30		Contact - EDP (Varieties)	26,27

APPENDIX B-6

Data Transcription Sheet

Attitudes Toward Education: International Study

Handicapped Persons Scale (Card 1)		Education Scale - Traditional		Education Scale - Progressive	
		Card 1	Card 2	Card 1	Card 2
Content (Col)	Intensity (Col)	Content (Col)	Intensity (Col)	Content (Col)	Intensity (Col)
1. _____(25)	_____(45)	3. _____(65)	_____(25)	1. _____(35)	_____(45)
2. _____(26)	_____(46)	4. _____(66)	_____(26)	2. _____(36)	_____(46)
3. _____	_____	6. _____(67)	_____(27)	5. _____(37)	_____(47)
4. _____	_____	10. _____(68)	_____(28)	7. _____(38)	_____(48)
5. _____	_____	11. _____(69)	_____(29)	8. _____(39)	_____(49)
6. _____	_____	12. _____(70)	_____(30)	9. _____(40)	_____(50)
7. _____	_____	13. _____(71)	_____(31)	15. _____(41)	_____(51)
8. _____	_____	14. _____(72)	_____(32)	16. _____(42)	_____(52)
9. _____	_____	18. _____(73)	_____(33)	17. _____(43)	_____(53)
10. _____(34)	_____(54)	19. _____(74)	_____(34)	20. _____(44)	_____(54)
11. _____	_____				
12. _____	_____	_____	_____	_____	_____
13. _____	_____				
14. _____	_____				
15. _____(39)	_____(59)				
16. _____	_____				
17. _____	_____				
18. _____	_____				
19. _____	_____				
20. _____(44)	_____(64)				
_____	_____				

Location _____

Group _____

Respondent No. _____