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A comparison of parental attitudes of mothers of schizophrenic, brain injured, and normal children

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Boston University
A COMPARISON OF PARENTAL ATTITUDES OF MOTHERS
OF SCHIZOPHRENIC, BRAIN INJURED, AND NORMAL CHILDREN

by

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CHAPTER I

INTRODUCTION

Contemporary psychological thought stresses the socialization process, the importance of parental care, love, warmth, guidance, and discipline in enabling a helpless infant grow to independent adulthood.\(^1\) With varying areas of emphasis and degrees of certainty, the relationship between parental attitudes and behavior and the child's behavior is stressed. The effects of "momism" on young men has been chronicled in recent years by Strecker.\(^2\) Levy's\(^3\) work has indicated that there is a relationship between dominant maternal behavior and over-docile children, and indulgent maternal behavior and free expression of aggression by children. Kanner\(^4\) wrote that he was tempted to organize


his book on child psychiatry around parental attitudes and their effect on children. "Much of the phenomenology of behavior disorders and personality deviations can be linked directly with motivations resulting from parents attitudes toward their children," he continued. Interest in parental attitudes is a constantly recurring theme among those who work with disturbed children.

Of increasing concern to mental health workers is the problem area known as childhood schizophrenia. The separately described conditions of infantile autism, atypical development, and symbiotic psychosis are generally conceded to be classifiable under the broad heading of childhood schizophrenia. The basic disagreement concerns the etiology of these conditions which, although variously named, are similar with respect to the child's isolation and lack of emotional contact, non-communicative speech, compulsive and often bizarre behavior. One area of this disagreement concerns the relationship between the mother's attitudes and behavior and the child's illness. The opinions of those whose work has been reported (and which will be discussed more fully in the next chapter) can for present purposes be classified into two main groups. The psychogenic group contends that the impact on the child of the mother's behavioral expression of "pathological" attitudes toward child rearing and the family brings about a schizophrenic reaction; the biogenic group, that there is an as yet

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5Kanner, L. op. cit. p. 117.
undiscovered organic reason for the child's symptoms and that the mother's "pathological" attitudes (which the authors of these opinions grant are often seen) arise as a result of the stress of trying to deal with the disordered child.

This study will attempt some clarification of whether or not "pathological" attitudes toward child rearing and the family can be detected in the mothers of severely disturbed children irrespective of whether the etiology of the illness is considered to be related to maternal attitudes toward child rearing and the family. The term "pathological attitude" as it will be used in this study has value implications but for lack of a better term shall be used as a descriptive one. It refers to relatively extreme scores on a particular instrument. Only that part of the question of the genesis of childhood schizophrenia centering about maternal attitudes is within the scope of the present study. It was felt, however, that a derivative of the total problem could be dealt with in such a way that it might shed some light on a point of contention among students of this subject.

In the literature which emphasizes the psychogenic view, the attitudes of the mothers of schizophrenic children are generally assumed to be more extreme forms of the neurotic attitudes common to mothers of less psychologically disturbed children. The mothers of schizophrenic children have not been compared with the mothers of brain injured and retarded
children with comparable severity of symptoms. The features assumed to have been causal may actually have been a result of dealing with a severely disordered child. The previous investigators, like the present one, saw the mothers only after there had been some recognition of the child's abnormality, so that any imputation of causality must be based on speculations which go beyond the data.

This study will compare the attitudes of mothers of schizophrenic, brain injured and retarded, and normal children. Each mother will be asked to complete the Parental Attitude Research Instrument. An overall measure of maternal attitudes as well as five clusters of more specific attitudes will be obtained. It is, of course, possible that the scores obtained with this instrument will reflect not merely a reaction to the child but, as is most likely, a synthesis of prior as well as reactive attitudes. Another possibility that must be entertained is that each of these groups contains some mothers who had the pathological attitudes before and some in whom they are reactions to the child. Despite these limitations, a comparison of the attitudes toward child rearing and the family of the mothers of schizophrenic children and of the mothers of similarly behaving children whose condition is assumed to be organically caused may thus provide a fresh viewpoint from which to consider the relationships between maternal attitudes and their behavioral expression and a severe disorder such as childhood schizophrenia.
CHAPTER II

REVIEW OF THE LITERATURE

This chapter will contain three main sections. The first will deal with the pertinent literature in the area of childhood schizophrenia, the second will cover the general area of measurement of parental attitudes, and the third will discuss the Parental Attitude Research Instrument (PARI) which will be used in this study.

I. Childhood Schizophrenia with Special Reference to Etiology

It has only been within the past ten to fifteen years that the concept of childhood schizophrenia began to receive widespread, thoughtful attention. In the early 1940's, workers attempted to delineate a more or less clearcut syndrome which could be differentiated from similar conditions. Kanner\(^1\) points out that De Sanctis' designation of \textit{dementia praecociissima} included some childhood schizophrenias but also some children with rapidly progressing brain diseases. He discourages the custom of including cases suffering from Heller's disease (dementia infantilis), Tay-Sachs disease, or

other unusual cerebral disease processes under the heading of schizophrenia. Whether schizophrenia will ultimately be found to be a cerebral disease process must remain an open question at this time.

Although the tendency of investigators of schizophrenia in children is at least to mention the contribution of both biological and psychological factors to etiology, there can be delineated, nevertheless, relatively clear expositions stressing one or the other of these factors as the major causal agent. Bender has probably had the most extensive experience with childhood schizophrenics of all the workers in the field. From her observations of a large number of such children she has described the schizophrenic child as:

...one who reveals pathology in behavior at every level and in every area of integration or patterning within the function of the central nervous system, be it vegetative, motor, perceptual, intellectual, emotional, or social. Furthermore this behavior pathology cannot therefore be thought of as focal in the architecture of the central nervous system but rather as striking at the substratum of integrative functioning or biologically patterned behavior.2

In a later publication she added:

2Bender, L. Childhood schizophrenia. The Nervous Child, 1942, 1, 138-140.
Schizophrenia in childhood may otherwise be defined as a form of encephalopathy appearing at different points in the developmental curve, interfering with the normal developmental pattern of the biological unit and the social personality in a characteristic way and, because of frustration, causing anxiety to which the individual must react according to his own capacities.

In every schizophrenic child, we can see disturbances in the vaso-vegetative functioning. The physiological rhythms of daily living lose their normal rhythmic pattern. Growth discrepancies are marked. Characteristic disturbances in patterned motor behavior or motility can be demonstrated in every schizophrenic child. In the family situation, the problem is further complicated by strong hereditary tendencies.

These excerpts highlight the biological nature of the disorder as Bender sees it. In this same article she comments on maternal reaction:

In discussing the disturbances in the interpersonal relationships of the schizophrenic child, we cannot omit comments on the reactions of the mothers. The mother of the schizophrenic child, especially the child in whom the process has developed insidiously over a long period, shows a specific mechanistic patterning due to her efforts to help the child in his distorted identification processes, to understand what is happening and to identify herself with the child. The mother bears an intolerable burden of anxiety and guilt, and is more bewildered than the child himself. She will try every mechanism for denying, evading, displacing, or absolving the child's psychosis. The motor and physical dependence of the child, his intriguing charm, his distressing anxiety all bind the child to the mother while she cannot identify with his problems or follow his disturbed thought process and development.

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Bender, L. Childhood schizophrenia. Amer. J. Orthopsychiat., 1947, 17, 40.
Bender also felt that in the family situation the problem is further complicated by "strong hereditary tendencies." Other schizophrenic individuals in the family intensified the problems of identification and anxiety in the family circle even among those who were not psychotic.

Kallmann, although his extensive studies were not with children, provides strong support for Bender's last statement in his finding that "the predisposition to schizophrenia, that is, the ability to respond to certain stimuli with a schizophrenic type of reaction, depends on the presence of a specific genetic factor which is probably recessive and autosomal."4

Turning to attitudes, Peck, Rabinovitch, and Cramer report from their experience with the parents of over 200 schizophrenic children that "no uniform or typical basic pattern of family dynamics is found."5 Their failure to find any consistent pathological parental attitudes which could support a psychogenically based theory tends to support Bender's position. They do find a common reaction of guilt, confusion, anxiety, hostility, social isolation and helplessness. "The reaction to the child's illness, however, is characteristic and derived largely from the nature of childhood


schizophrenia and the relationship distortions that its presence superimposes on previously existing family patterns.\textsuperscript{6}

Rabinovitch in a more recent publication observed:

"We have been impressed with the wide variety of early experience of our schizophrenic children. Some appear to have had intensive, consistent, warm mothering; others have had no meaningful mothering. No definitive psychogenic patterning has emerged. Some workers have tended to correlate mechanical or objective early mothering with later schizophrenia; our findings suggest generally a psychopathic rather than a schizophrenic outcome in these cases.\textsuperscript{7}

The psychogenic-biogenic disagreement is not strictly between psychoanalytic versus non-psychoanalytic points of view. The psychoanalyst Pearson for instance, believes that "the psychoses seem to be the result of constitutional peculiarities that make the individual unable to tolerate traumatic experiences to which other persons, not so constitutionally incapable, can adjust."\textsuperscript{8} Erikson, also a psychoanalyst, remarks:

"The role which maternal rejection or special circumstances of abandonment play...is still debatable. I think we should consider that these children may very early and subtly fail to return the mother's glance, smile, and touch; an initial reserve which makes the mother in turn, unwittingly withdraw.... In those cases of infantile schizophrenia which I have seen, the primary deficiency in 'sending power' was in the child; although, of course, the child as a former part of the parent may well share with the parent some frailty of contact and communication which may appear in malignant form in the younger mind and


\textsuperscript{7}Rabinovitch, R. A differential study of psychopathic behavior in infants and children. Amer. J. Orthopsychiat. 1952, 22, 234.

organism, while in the adult it may have found a compensatory expression in superior intellectual or artistic equipment.9

Most other workers in this area have placed much greater emphasis on the importance of emotional factors, chiefly, deficient mothering in the early life of the child, as the etiological key. This position is stated most forcefully by Szurek and Berlin, who report that, "the therapeutic approach of the Children's Service of the Langley Porter Clinic to those severe emotional disorders known as schizophrenia, autism, psychosis, and atypical development is based on the hypothesis that these disorders are entirely psychogenic."10 It must be observed that a statement as categorical as the above is not to be found among the other authors who stress the importance of psychogenic factors. Some recognize the contribution from constitutional factors but feel that the pursuit of these would not be so fruitful as would the study of the psychogenic elements. Others believe that there may be an innate predisposition to the disorder which becomes manifest only in the predisposed child who has been born to a mother with very pathological attitudes. Still others question, in the light of further experience, whether their early psychogenic hypotheses have been adequate to explain the observed phenomena.

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10Szurek, S.A. and Berlin, J.N. Elements of psychotherapeutics with the schizophrenic child and his parents. Psychiatry, 1956, 19, 1.
Kanner is a psychobiologist who has long been concerned with the problem of etiology. His work on the problem of early infantile autism, which he groups in the category of the schizophrenias, has stimulated much of the current interest in childhood schizophrenia. He at first observed, "...for here we seem to have pure-culture examples of inborn autistic disturbances of affective contact." ¹¹ In a later publication,¹² parents were seen to be cold, intellectual, obsessive and perfectionistic, and mechanistic in human relationships. At the 1953 Round Table on Childhood Schizophrenia of the American Orthopsychiatric Association,¹³ he took vigorous issue with a participant who said that Kanner thought infantile autism to be a product of contact with a schizophrenic parent. He insisted that his observations were only part of an almost invariably recurring phenomenology, but not the only factors at play. The progression of his thinking may be highlighted by the following excerpt from a recent publication of which he was co-author:

¹¹Kanner, L. Autistic disturbances of affective contact. The Nervous Child, 1943, 2, 250.


No valid help (in understanding the etiology) came from the exploration of somatic factors....A consideration of genetics...produced a figure of less than 5 per cent for progenitors and other kin, including collaterals. Our attention was directed to the indisputable fact that the patients came from intelligent, sophisticated stock....The majority of the parents...were cold, detached, humorless perfectionists, more at home in the field of abstractions than among people, dealing with their fellow men on the basis of what one might call a mechanization of human relationships; they themselves had escaped the psychotic proportions of their offspring's aloneness and sterile obsessiveness. One is therefore led to think of a familial trend toward detached, obsessive, mechanical living. At the same time, it cannot be forgotten that the emotional refrigeration which the children experienced from such parents could not but be a highly pathogenic determinant of their early personality development, superimposed powerfully on whatever predisposition may have come through inheritance.¹⁴

Kanner's observation of an "almost invariably recurring phenomenology" with regard to parental personality is quite different from Peck, Rabinovitch, and Cramer's failure to find any consistent patterns.

The workers at the Children's Center in Boston mention hereditary and biological factors as playing an important predisposing part, but they stress the role of postnatal psychological elements in the etiology or emergence of what they call "atypical development."

"We are aware that these children are identical with those described in the literature under the diagnosis of infantile autism or childhood schizophrenia."\(^{15}\) Rank and Macnaughton represent the psychological climate of the child thus:

The chief source of deprivation is the lack of satisfactory relationship between child and mother, herself infantile and inconsistent, who, adhering rigidly to book rules, is driven by guilt and anxiety rather than guided by spontaneous maternal feelings. The inhibition of her motherliness we understand as a carry-over of her own early disappointing relationships which produced the forbidden unconscious fantasies regarding the child. Among the most frequently encountered and most disturbing fantasies which may exist along with the universal one of the incestuous child, are those where the mother projects onto the child the devaluated image of herself in toto or in part. The concept of the child being the bad self or just a piece of feces or the phallus takes on a very specific meaning and assures such an exclusive, unmodifiable significance that this in itself may be indicative of the mother's own precarious balance and lack of ego outline. She thereby finds herself caught in a maze of ambivalent strivings: seeing in her child only the projected image of herself and simultaneously, by introjecting his image, being the child!\(^{16}\)

Despert\(^{17}\) has been impressed by the large measure of agreement on characteristic maternal attitudes among herself, Kanner, and Tietze. She disagrees with Bender and Peck,

\(^{15}\)Kaplan, S. Childhood schizophrenia. Amer. J. Orthopsychiat., 1954, 19, 521.


Rabinovitch and Cramer that these attitudes may be a reaction to the child's illness. What these authors describe as reaction, Despert sees as a neurotic projective defense against awareness of their involvement in the disorder. She cites what she calls a "pertinent summarized description" from Tietze:

All mothers were overanxious and obsessive, all were domineering.... All mothers were found to be restrictive with regard to the libidinal gratification of their children. Most of them were perfectionistic and oversolicitious and more dependent on approval by others than the average mother.  

Despert admits in passing that "it would be difficult to dissociate the primary maternal attitude from secondary reactions" but concludes:

For many (children), there have been lacking the warmth, the closeness, the body contact pleasures from the mothers which are recognized as essential to a normal development of relation to reality....Certainly the problem of affective contact with reality in the young child must hinge upon the kind of satisfactions or frustrations experienced by the infant in his early dependency on his mother.

Ribble, in discussing Despert's paper, agrees with her and adds:

18 Tietze, T. A study of mothers of schizophrenic patients. *Psychiatry*, 1949, 12, 64.
In my research project on infants and mothers... it became increasingly evident that the psychological fate of the baby is to a considerable extent determined by the emotional health of the parents... It seems to me that the mother of the child who develops autistic behavior is an extreme case of the negative woman and unfortunately the infant is the first to sense her unconscious hostility... I believe that the child who shows autistic behavior has been traumatized in the early months of life since he symbolizes to the mother so definitely the hated sibling.19

In a paper in which she compared autistic and symbiotic psychosis, Mahler wrestles with the problem of etiology.20 At one point, she stresses the importance of a distortion of the mother-child relationship. Further on, she writes of the basic damage to the ego which results in psychosis as occurring only in those children with a constitutional predisposition for it. At the close of her paper, she returns to the idea of a conflict in the mother-child relationship as the major cause of ego alienation from reality.

In examining the contributions that have been made toward a better understanding of childhood schizophrenia, one cannot but be impressed by the recent increase in research and discussion of the subject. Many problems remain, not the

19Ribble, M. In discussion following Despert's paper. Amer. J. Orthopsychiat., 1951, 21, 347.

least of which is a real need for a common nomenclature. The workers in the various centers seem to coin their own terminology which makes careful comparison of their results difficult, if not impossible. There is more agreement about the clinical phenomenology than about the genesis of childhood schizophrenia. The latter issue arouses sharply divided opinions. Both preventive and therapeutic efforts hinge upon the as yet unresolved problem of how schizophrenic children become ill. For the present, we can discern two different views of where the emphasis should be placed in order to understand the etiology of these conditions. Bender, Rabinovitch, Kallman, Pearson and Erikson stress the importance of biological factors while Szurek and Berlin, Kanner, Kaplan, Rank and Macnaughton, Despert, Ribble, Tietze, and Mahler stress the importance of psychological factors in the mother-child relationship. It should be noted that therapeutic successes are conspicuous by their paucity, regardless of the theoretical position upon which these attempts were based.

II. Parental Attitude Studies

Clinicians who work with problem children and their parents and researchers in the general area of parent-child relationships have been stimulating each other to examine more closely the matter of parental attitudes and their associated behavior. Clinical investigation, by its very nature,
usually takes the form of intensive interview work with small numbers of cases, although sometimes psychological tests are included. More generally-oriented research also employs interviews and tests, but an increasing interest in the use of questionnaires, rating, and attitude scales has appeared.

There are, of course, logical and methodological problems in the use of such instruments in post-dictive rather than predictive studies. There is, however, an obvious parallel between post-dictive studies and retrospective clinical studies. The difficulty involved in asserting that obtained differences in attitudes of parents of children showing varieties of adjustment problems are measures of attitudes existing before and during the years the children were developing must be granted. When differences are obtained, however, they cannot be ignored. It is often suggested that the solution lies in longitudinal assessments of the effects of parental attitudes on children's development and behavior. Ultimately such studies may provide the answers we seek, but practically speaking, there are very real problems of personnel, financing, and time to be considered. One of the strongest arguments for the retrospective study is the contribution to the development of hypotheses that will make future longitudinal studies sharper and more meaningful.

Shoben\textsuperscript{21} concludes that clinical studies demonstrate agreement on several points:

(a) Childhood personality and behavior problems seem to be related to parental policies and their manner of execution.

(b) Over-protection, rejection, repressiveness, severity, domination, and undue submissiveness seem to be the parental traits which are associated with children's difficulties.

(c) The provision of a home in which the child can grow up feeling emotionally secure seems to be the basic requisite in the socialization of the child.

Experimental studies tend to support these conclusions. For example, Hattwick\textsuperscript{22} found correlations between teachers' ratings of the behavior of preschool children and parental attitudes which were evaluated by home visits. Updergraff\textsuperscript{23} cited an unpublished M.A. thesis by Grant who, in a similar study, found definite relationships between patterns of parent behavior and the behavior of preschool children. To parents of high school students whom classmates had classified on a leadership spectrum, Miles\textsuperscript{24} administered an attitude questionnaire. Parents of leaders were found to have less stringent attitudes towards controlling

\textsuperscript{22}Hattwick, B.W. Interrelations between the preschool child's behavior and certain factors in the home. \textit{Child Develpm.}, 1936, 7, 200-226.

\textsuperscript{23}Updergraff, R. Recent approaches to the study of the preschool child: III, Influences of parent attitudes on child behavior. \textit{J. consult. Psychol.}, 1939, 3, 34-36.

\textsuperscript{24}Miles, K.A. Relationship between certain factors in the home background and quality of leadership shown by children. Unpublished doctor's dissertation, Univer. of Minn., 1945.
children's behavior. Harris, Gough, and Martin\textsuperscript{25} found differences in parental attitudes between parents of prejudiced and unprejudiced children. Radke\textsuperscript{26} reported that unfavorable conduct of children is related to severe, restrictive, and autocratic attitudes toward the discipline of children. These findings are generally consistent with the conclusion of Orlansky,\textsuperscript{27} who reviewed the literature on the relationship of specific infant care practices to later personality attributes, that personality is determined by constitutional factors and the total cultural situation rather than by specific infant care practices or events.

To explore attitudes related to infant care practices, Shoben\textsuperscript{28} developed an 85-item inventory-type test which he called the "University of Southern California Parent Attitude Survey." Despite the considerable number of self-inventory measures of attitudes, interests, and personality in common use, he concluded that "it is a little startling to find that there is no worthwhile questionnaire available for the assessment of parental attitudes." He employed his test in a


\textsuperscript{28}Shoben, E.J., Jr. \textit{op. cit.}
comparison of 50 mothers of children who had been referred for psychological help or who had a court record with 42 mothers of children who did not manifest such problems. Significant differences were obtained between the two groups on variables of maternal dominance, possessiveness, and ignoring. Shoben concluded that parents take sufficiently consistent attitudes toward their children to permit measurement and that these attitudes are significantly related to child adjustment. Bell reports that "a partial correlation computed from data available in (Shoben's) published report indicates that a significant difference in educational level between parents of problem and non-problem children did not materially affect the validity coefficients obtained."29

Mark30 administered a 139-item attitude survey which included many of Shoben's significant items to 100 mothers of male schizophrenics and 100 mothers of male nonschizophrenics. These groups were matched on age, religion, education and socio-economic level. Expecting only 7 on the basis of chance, he found that 67 items differentiated the two groups at or beyond the .05 level of significance. McFarland,31 using the same questionnaire and smaller, though

29Bell, R.Q. Retrospective attitude studies of parent child relations. Paper read at A.P.A. Symposium, Chicago, Sept., 1956.


apparently similar populations, failed to obtain significant results when he replicated Mark's study.

Freeman and Grayson\textsuperscript{32} administered a scale consisting of the items which Shoben had found significant to the mothers of 50 adult male schizophrenics and to a control group of 50 mothers who had at least one child in the same (20-35) age range and who had no children who had ever required psychiatric attention. Among their results, they report that the scale is a reliable instrument, that mothers of schizophrenics showed generally poorer parent-child attitudes than controls, that the Possessive and Ignoring scales revealed significant differences between the two groups although the Dominating scale did not. Because of their failure to obtain any identifying information about the control group, it is not possible to say what effect differences in education, religion, and like factors may have had upon the results.

Goldstein and Carr\textsuperscript{33} used some of Mark's items in a 56 item questionnaire which they administered to 26 mothers of adult male paranoids and 34 mothers of adult male catatonics. They did not find a significant number of differentiating items. They did find that the mothers of the catatonic patients

\begin{flushright}
\textsuperscript{32}Freeman, R.V. \& Grayson, H.M. Maternal attitudes in schizophrenia. \textit{J. abnorm. soc. Psychol.}, 1955, 150, 45-52.

\textsuperscript{33}Goldstein, A.P. \& Carr, A.C. The attitudes of mothers of male catatonic and paranoid schizophrenics toward child behavior. \textit{J. consult. Psychol.}, 1956, 20, 190.
\end{flushright}
differed significantly in the number of answers omitted and in reports of inability to complete the questionnaire.

These studies, all recent publications, are indicative of the increasing utilization of the attitude survey approach to some of the broad problems of parent-child relations. Bell reports that a limited informal survey conducted by the National Institute of Mental Health "revealed forty-six studies involving parental attitudes planned or underway during 1956. The majority of those reported are retrospective." Refinements in the questionnaires are resulting in improved reliability and validity of instruments and are enabling investigators to apply them to a wider variety of subjects.

III. The Parental Attitude Research Instrument (PARI)

A. Introduction and Development of the Instrument

Schaefer and Bell developed the Parental Attitude Research Instrument (PARI) as an outgrowth of the considerable current interest in the influence of parental attitudes and behavior upon the personality development of the child. The form of the PARI used in the present study is an inventory of

34Bell, R. Q. op. cit.

23 five-item scales designed to measure parental attitudes toward child rearing and family life. Schaefer and Bell considered the findings of Orlansky\textsuperscript{36} which emphasized the importance of the total pattern of experiences of children rather than specific infant care practices, and of Symonds\textsuperscript{37} that the quality of parent-child relationships is of crucial importance. Agreeing that the specificity of the mother's infant care practices was less crucial than the general relationship she had with her child, Schaefer and Bell attempted to develop measures of those components of her personality which are related to her potential for establishing a constructive relationship. They hoped thereby to be able to determine the type of relationship which the mother would offer to the child and to predict the child's adjustment. They felt that both clinical studies in which patterns of parental attitudes were related to differential adjustment in the children and the statistical theory of differentiation and prediction suggested the need for a broader range sampling of attitude concepts by homogeneous groups of items in preference to a device which would give only one score of "pathogenicity" of parental attitude.

\textsuperscript{36}Orlansky, H. \textit{op. cit.}

\textsuperscript{37}Symonds, P.M. \textit{The psychology of parent-child relationships}. New York: Appleton-Century, 1939.
Starting with a pool of items found statistically significant in the Shoben and Mark studies, three clinical psychologists sorted the items into groups which appeared to be psychologically homogeneous. These sortings were discussed in a conference and a group decision was reached to use a particular conceptual scheme to classify all of the items. They found that scales which state "healthy" attitudes provide very poor discrimination because of the tendency for all persons to agree. They therefore emphasized the development of the more differentiating pathogenic scales. Many mothers were annoyed by tests composed entirely of pathogenic scales because there were no items with which they felt they could agree. For this reason, a number of "rapport" scales with low reliability and poor discrimination were found to be useful in the inventory.

Form I of PARI was thus developed primarily from the analysis of Mark's and Shoben's material which were sorted into groups of ten items. These were used in standardization work on samples of 100 primiparae and 100 multiparae. Although they achieved fair reliabilities, Schaefer and Bell believed that a procedure different from the

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standard practice of testing the statistical properties of an initially available pool of items and eliminating the unsatisfactory ones would be required for the exploration of new concepts. Thus for Form II, concepts were developed from theory and previous studies. They "attempted an operational definition by writing items designed to measure the concept." Scales thus developed were tried out in short exploratory forms on small samples of 25 mothers. Successive samples led to the dropping of unsatisfactory items, the retention of useful ones, and clues to the writing of new items which were then tested. Successive small samples were confirmed with larger samples in later forms with resulting improvement in scale reliabilities which the authors feel was frequently quite dramatic.

B. Reliabilities

The internal consistency and test-retest reliabilities of the scales are to be found in Appendix A in the table "Reliabilities of the Parental Attitude Scales." Form IV, which was used in the present study and which is reproduced in full in Appendix B, is the result of an attempt to develop a more efficient test by selecting the five most reliable items from each scale. Internal consistency reliability coefficients were calculated for these five-item scales by means of Kuder-Richardson Formula 20 on new samples of 60 primiparae and 60 multiparae. For the primiparae group, the coefficients were greater than .69 for five scales, greater
than .59 for twelve scales, greater than .53 for three scales, and greater than .34 for three scales. For the multiparae group, the coefficients were greater than .69 for ten scales, greater than .59 for eight scales, and greater than .39 for five scales. These reliabilities would appear to be satisfactory for multivariate research on group differences.

Pearson product-moment test-retest reliability coefficients were calculated for 60 student nurses who were administered Form III, consisting of nineteen 8-item scales, and retested after a period of three months. The coefficients were greater than .70 for seven scales, greater than .59 for seven scales and greater than .43 for five scales. With respect to both methods of measuring reliability reported above, the majority of the coefficients of the order of .34 to .46 were from scales which were not expected to discriminate very much and which were, in fact, intended to encourage agreement and rapport.

Guilford\textsuperscript{40} observes that, with respect to how high reliability coefficients should be, no rigid rules may be stated. He felt that for research purposes, one can accept much lower reliabilities than one can for such practical considerations as diagnosis and prediction. He suggested that we should make the best of what reliability we can get, even though it may be of the order of only .50, rather than

abandon the test. Most of the PARI scales have reliabilities well above this figure. It would thus appear that, in general, the reliabilities were satisfactory for multivariate research on group differences.

C. Validity

A study of the predictive validity of the PARI scales is currently underway at the National Institute of Mental Health. Neither these nor similar devices used in other studies have yet been demonstrated to have predictive validity. Because of the number of studies which have used items similar to those used in the PARI and which have demonstrated differences between parents of children with different types of adjustment (see Section II of this chapter), the authors feel that the effectiveness of this approach has been demonstrated. They further state that the scales may be regarded as a comprehensive sample of the concepts represented by items in the Shoben41 and Mark42

41Shoben, E.J. _op. cit._

42Mark, J.C. _op. cit._
studies supplemented by concepts derived from a broad sampling of the psychoanalytic, anthropological, sociological, and psychological literature." They conclude, with regard to construct validity, that although there is no existing adequately organized and integrated personality theory from which it could be demonstrated that these concepts have been developed, we feel that our latent theoretical orientations are, at the present stage of development, supported by the factorial structure discussed in the section on the factor analysis of scales. A list of factors cannot be construed as proof of a theory but the major hypotheses about the organization of parental attitudes which guided our development of concepts seem to be supported.43

D. Factor Analysis

Schaefer and Bell hypothesized that group factors could be isolated within the domain of parental attitudes even if a general factor of "pathogenicity" accounted for a sizeable portion of the total variance. The 24 scales which were administered to the 100 student nurses were scored by assigning weights of 4, 3, 2, and 1 to the response categories of strong agreement, mild agreement, mild disagreement and strong disagreement in that order for each item. A scale score consisted of the sum of the item weights. Distributions of the scale scores were converted to stanine scores according to the standard distribution used in air force testing.

programs. These were intercorrelated and Thurstone's centroid method of factor analysis used to extract five orthogonal factors which were then rotated to simple structure. The five relatively independent factors or syndromes of parental attitudes were reported in a table, "Structure of Attitudes Toward Child Rearing and the Family," which appears in Appendix C.

The authors summarize\(^\text{44}\) that the factor of "'Suppression and Interpersonal Distance' seems to be related to the warmth and closeness of the relationship and the degree of recognition of the individuality of the child." "Hostile Rejection of the Homemaking Role" reveals dissatisfaction with the role of wife and mother and a high level of openly expressed hostility. "This factor may be related to the pattern of maternal rejection which has been described by clinicians. It seems reasonable to hypothesize that these attitudes would be related to the aggressiveness which is attributed to rejected children." The factor of "'Excessive Demand for Striving' reveals a demand for conformity and achievement by the child to meet the parents' needs." The factor of "'Over-Possessiveness' might well be related to parental behavior which leads to the dependency characteristic common in over-protected children." "'Harsh

\(^{44}\) Ibid., 12-13.
Punitive Control' resembles the variable of parental dominance which has often been previously described; ...this factor reflects overt dominance through severe measures as contrasted to the covert control of Over-Possessiveness."

Schaefer and Bell conclude that this factorial structure "suggests that the attitudes toward child rearing and the family as expressed by young unmarried women are organized into meaningful patterns which resemble syndromes found by clinicians in mothers of emotionally disturbed children." They further feel that because of the existence of these meaningful patterns prior to the assumption of the roles of wife and mother, there is a relationship between the patterns and stable personality characteristics which may influence behavior with future children. To investigate the influence of the respondents' role upon attitude structure, they planned future factorial analyses of these scales administered to primiparae, multiparae, and of selected scales for fathers.

Studies by Read,46 Miles,47 Radke,48 Shoben,49 Harris, Gough, and Martin,50 and Freeman and Grayson,51 have all employed items similar to those in the Parental Attitude Research Instrument. They have all demonstrated differences between parents whose children display different types of adjustment. These findings support the contention that this general approach is an effective one. The PARI, which employs scales rather than single items, would seem to be a forward step in the development of such instruments. The procedure of using successive samples and of confirming small sample


work with larger samples in later forms resulted in a greater improvement in scale reliability than would have been the case had the authors simply eliminated items from an original item pool. Considering that the present study can be categorized as what Schaefer and Bell call "multivariate research on group differences," it would seem that the reliability and validity of the PARI are acceptable for that purpose. In considering an instrument which would be useful to compare the attitudes of mothers of children with different illnesses and mothers of healthy children, the PARI seems to be the best available at the present time.
CHAPTER III

STATEMENT OF THE PROBLEM

I. Problem Resume

The review of the literature has highlighted two rather divergent views concerning the etiology of childhood schizophrenia. One school of thought contends that the behavioral expression of the attitudes of the mothers towards child rearing, child behavior, and family life is crucial to the genesis of this condition; the other that factors such as heredity and lack of integration of the nervous system are primary. This latter group questions whether the finding of pathological attitudes in the mothers is sufficient evidence from which to conclude that the attitudes were present prior to the birth of the schizophrenic child and were indeed, when translated into maternal behavior, the cause of the illness. Such attitudes might develop as a reaction to having a sick child and not be present before the manifestation of the child's symptoms.

If pathological attitudes arise as a result of dealing with a seriously disordered child, they should be discernable in mothers with similarly disordered but differently diagnosed children. If pathological attitudes
arise as a result of dealing with a seriously disordered child, they should appear in mothers whose children's disordered behavior is presumably not caused by the mothers' attitudes and behavior.

II. Statement of Hypotheses

Assuming that the pathological attitudes toward child rearing and the family of the mothers of schizophrenic children exist as a result of the difficulties encountered in trying to raise an afflicted child, one might expect that the following hypothesis are tenable.

A. The attitudes which are defined as pathological will be shown no more frequently by the mothers of schizophrenic children than by the mothers of similarly behaving children diagnosed as organically damaged and mentally retarded.

B. The attitudes which are defined as pathological will be shown more frequently by the mothers of schizophrenic children and the mothers of brain damaged and retarded children than by the mothers of normal children.

C. It would be worthwhile to attempt to delineate, if possible, attitudinal clusters less general than a single over-all measure of pathogenicity. The factors isolated by Schaefer and Bell, although derived from a population of unmarried women, would seem to provide a useful framework for further exploration of whether or not there are
circumscribed areas of attitudinal difference which may not be observable in a total score analysis. The five factors¹ are:

1. Suppression and interpersonal distance
2. Hostile rejection of the homemaking role
3. Excessive demand for striving
4. Over-possessiveness
5. Harsh punitive control

The following further hypotheses are therefore suggested:

1. The attitudes which are subsumed under each of the five factors above will be shown no more frequently by mothers of schizophrenic children than by mothers of brain damaged and retarded children.

2. The attitudes which are subsumed under each of the five factors will be shown more frequently by mothers of schizophrenic children and mothers of brain damaged and retarded children than by mothers of normal children.

¹For the scales included in each factor, see Appendix III.
CHAPTER IV

PROCEDURES

On the basis of the general hypotheses, there are certain variables to be defined. These include the subjects, certain pertinent characteristics of the subjects, and the instrument. The independent variable is the subject selected on the basis of the diagnosis and behavior of the child. The dependent variable is the attitude scores of the subjects. With respect to the independent variable, the categories are mothers of schizophrenic children, mothers of retarded and brain damaged children, and mothers of normal children. These will be defined below. The dependent variable will be defined in terms of the attitude scale, the PARI.

I. Groups of Mothers

A. Mothers of Schizophrenic Children

Fifteen mothers of children who were clinically diagnosed as suffering from childhood schizophrenia and who were resident at a hospital for mentally ill children, constituted this group. This group will be called group S.

See Appendix D for data on individual mothers.
In addition to the diagnosis of childhood schizophrenia evidence of the following signs in the children was required:

1. Speech disorders - i.e., total absence of speech, speech established then lost, non-communicative speech, or bizarreness of speech.

2. Behavior disorders - i.e., lack of relationship with people, continuous relationship with objects, ritualistic perseveration of habits, aloneness, repetitive actions such as head hanging, rocking etc., rage reactions, feeding problems, and extreme anxiety.

Evidence against primary mental retardation and absence of gross known organic signs such as cretinism, mongolism, brain tumor, deafness, amaurosis, hydrocephaly, and positive neurological symptoms was a further requirement.

B. Mothers of Retarded and Brain Injured Children

The second group were 15 mothers of severely disordered children diagnosed as mentally retarded and brain injured who were resident at either a hospital for mentally ill children or a state school for the mentally retarded. This group will be called group 0. It was required that these children display evidence of both severe speech and/or behavior disorders and of mental retardation accompanied by known neurological signs. Only mothers who visited their children were included because the data was gathered, with a few exceptions, on visiting days at the institutions. The
exceptions were two mothers who couldn't remain late on visiting day and agreed to return by appointment. Two others were seen following a week day visit to a hospital social worker.

C. Mothers of Normal Children

The third group was made up of 26 mothers none of whose children was reported to have had a history of, or present difficulty with neurological, psychiatric, or chronic physical illness. This group will be called group N. The majority of these mothers were solicited by a letter from the principal of two public schools close to the hospital and state school asking them to participate in a study of mothers' opinions about how children should be raised. These mothers were seen in two groups. Three of the 26 mothers were solicited personally by the author before the possibility of recruiting through the public schools had been explored. The greater convenience of the latter method was then employed and these 3 subjects were added to that group.

II. The Equation of the Groups

Certain variables such as age, religion, socioeconomic status and education have been considered to be pertinent to an individual's expressed attitudes. Despite the very real restriction on the number of subjects available because of the dearth of clearly diagnosed, hospitalized schizophrenic children and similarly behaving retarded and brain injured children, it was felt that these variables should be
examined in the samples that were obtained. It should be noted that there is no exact formula for considering the effects of these various factors, nor is it clear whether there is a general factor common to the four of them. The results of the comparison of the three groups of mothers on these four variables follow.

1. Age - The ages of the mothers, which range from 30 to 53 years for the schizophrenic group, 28 to 48 for the organic group, and 29 to 47 for the normal group were compared by means of the Kruskal-Wallis sum of ranks method for comparing k samples.\(^2\) The resulting H of 5.06 (P > .05) is not significant. This analysis was done with the discrete age of each subject rather than any groupings. Although this finding approaches significance, there is no information about what groupings or intervals of years might be significant and pertinent to an investigation such as the present one, and thus it would seem tenable that the three groups could have been drawn by chance from a population homogeneous with respect to age.

2. Religion - Using a 3x3 table, Chi-square was calculated for the three groups of mothers according to whether they professed to be Catholic, Protestant, or Jewish. This yielded a Chi-square of 8.63 which falls short of

significance at the 5 per cent level. Further consideration suggested that the pertinent religious grouping of mothers in this study should be a Catholic vs. non-Catholic dichotomy. A 3x2 Chi-square was therefore computed in which Chi-square was found to be .35 (P > .05). Further justification for this latter grouping would seem to lie in the small number of Jewish mothers (six of fifty-six subjects) and in the similarities of Protestant and Jewish, in contrast to Catholic, belief and practice in varied matters such as birth control and censorship. It must be noted that neither intensity of affiliations to any of the religions, nor variations within any one major faith were considered in this comparison. A devout Episcopalian and an indifferent Congregationalist would both fall in the Protestant category.

3. Socioeconomic Group. The occupations of the husbands were classified, by means of the Dictionary of Occupational Titles, into one of the six groups developed by Edwards as reported by Shartle:

1. Professional Persons
2. Proprietors, Managers, and Officials
3. Clerks and Kindred Workers


4. Skilled Workers and Foreman
5. Semi-skilled Workers
6. Unskilled Workers

Because of the small number of subjects involved and because a more refined grouping did not seem logically necessary, the six groups were reduced to three by combining 1 and 2, 3 and 4, and 5 and 6. Using a 3x3 table, Chi-square was calculated to be 3.39 (P > .05) from which we may conclude that the three groups of mothers are not significantly different with respect to socioeconomic classification.

4. Education. This variable is the one which might well be considered to be the most critical with respect to its relationship to expressed attitudes. For the purpose of comparing the three groups of mothers, they were classified into three educational groupings:

1. Two or more years of college completed.
2. Two years of high school but less than two years of college completed.
3. Less than two years of high school

Computation yielded a Chi-square of 10.12 (P < .05). This finding that these groups of mothers seem to differ with regard to their education was heavily weighted by the fact that there were six mothers in the schizophrenic group with a grammar school education and only two such mothers each in the organic and normal groups. Among those mothers who had two years of high
school but less than two years of college, there were five mothers from the schizophrenic group, ten from the organic group and twenty from the normal group. Among those mothers who had more than two years of college, there were four from the schizophrenic group, three from the organic group, and four from the normal group. It is evident from the Chi-square table that the main contribution to this difference is provided by the one cell in which the schizophrenic group has a greater proportion of mothers with a grammar school education. Nevertheless, this finding could not be ignored and the variable was further examined by an analysis of covariance of education in years and attitude scores. This will be reported under results. Parenthetically, it might be pertinent to observe at this point that the saturation of poorly educated mothers in the schizophrenic group is at variance with the reports of many of the supporters of the psychogenic hypothesis who have been struck with the disproportionately high number of highly educated parents in their samples.

III. The Attitude Measure

A. Instrument.

As the measure of maternal attitudes, Form IV of the Parental Attitude Research Instrument 5,6 was employed in

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5See Chapter II, Section III for data about the development of the instrument, reliability, validity, etc.

6See Appendix B which contains a copy of the PARI.
this study. It is a paper and pencil inventory consisting of 23 five-item scales each item of which is located 23 items away from any other in the same scale. Each item is a statement about child-rearing and family life. The respondent must encircle a letter denoting one of four opinions about the item: strong agreement, mild agreement, mild disagreement, strong disagreement. There is no category for expressions of indecision or equivocation. Most of the items are constructed so that strong agreement reflects a pathological attitude except for the rapport scales which encourage agreement.

B. Administration

Each mother of the hospitalized children was asked to participate during a visit to the hospital. She was told that newspapers, magazines, and books in ever increasing numbers are carrying articles about child rearing and behavior, that many of these articles profess to be expressions of mothers' feelings about these issues, and that others tell her what she should be thinking and feeling. Often these articles disagree. She was told that a study was being conducted in an effort to determine what mothers actually think about these topics. She was assured that there were no right or wrong answers and that what was wanted were her honest opinions. She was urged to respond to each item and assured that although some items might appear to be alike, there were no two identical items. No mention was made of her ill child.
and if she raised the question of whether she should answer in terms of that child, she was urged to consider each statement a general one and answer in those terms. The fact that this study was being conducted in the hospital which housed the ill child cannot have been lost on them, but it was not stressed by the author.

The mothers of the healthy control group were approached with the same general discussion about disagreements in the published literature. They were given the same instructions for completing the inventory. They were, however, solicited on the grounds that they were reputed to have normal, well adjusted children. The principal of the two schools from which these subjects were obtained felt strongly that such a statement would elicit the necessary cooperation.

Personal data about age of the mother, her education, religion, husband's occupation, number of children, and family medical history was obtained from each mother in the study after she had completed the PARI.

C. Scoring

Weights of 4, 3, 2, and 1 are assigned to response categories A, strongly agree, a, midly agree, d, mildly disagree, and D, strongly disagree in that order. A scale score consists of the sum of the item weights. The scale scores were converted to stanine scores according to the multiparae conversion table provided by Schaeffer and Bell.7

7See Appendix E.
The subjects' stanine scores were used in testing the hypotheses. Operationally, pathological attitudes are defined in terms of high stanine scores. This is also applied to the rapport scales which, although the wording encourages agreement, were turned around in such a way that a high stanine reflects a pathological attitude on that scale. Schaeffer and Bell caution that the stanine distributions for rapport scales are unstable because these distributions are markedly skewed. These items were developed so that there would be some items with which most mothers would agree. The factor scores for each subject on each factor were computed by summing their stanine scores of each scale included in that factor. In this study, there is no absolute level of pathology of attitude. The comparative scores of the three groups will be the pertinent consideration.

IV. Experimental Predictions

The hypotheses and the definitions stated above lead to the following experimental predictions.

A. There will be no difference in total scores on the PARI between a group of mothers of schizophrenic children and a group of mothers of organically damaged children.

B. A group of mothers of schizophrenic children and a group of mothers of organically damaged children will have higher total scores on the PARI than will a group of mothers of normal children.

C. There will be no difference in PARI scores between a group of mothers of schizophrenic children and a group of mothers of organically damaged children on any of the five factors.

D. A group of mothers of schizophrenic children and a group of mothers of organically damaged children will have higher scores on each of the five factors than will a group of mothers of normal children.
CHAPTER V

RESULTS

The results of this study confirm the general hypothesis that pathological attitudes toward child rearing and the family will be shown no more frequently by the mothers of schizophrenic children than by the mothers of similarly behaving retarded and brain injured children. The results further indicate that the attitudes of each group of mothers of ill children differs more markedly from the attitudes of the mothers of normal children than from those of each other. The results of testing each hypothesis will be reported below followed by additional analyses of variables which are pertinent to the present study. Hypotheses I and II are dealt with by analysis of variance which is presented under Hypothesis II. Hypotheses III and IV are dealt with by analysis of variance which is presented under Hypothesis IV.

I. Hypothesis I

A. The first hypothesis to be tested was that the attitudes which are defined as pathological will be shown no more frequently by the mothers of schizophrenic children than by the mothers of similarly behaving children diagnosed as organically damaged.
1. The statistical hypothesis tested was that there is no difference in total scores on the PARI between group S and group 0.

The results show that the null hypothesis, which states that the population mean total scores are equal, can be rejected. The mean total scores of the two groups were tested by means of a t test based upon the analysis of variance presented under Hypothesis II. These findings are presented in Table I. The difference between the means of the schizophrenic (125.06) and the organic (129.46) groups is 4.4 which is significant (P < .05) for twenty-eight degrees of freedom. Although the null hypothesis can be rejected, the fact that the significant difference is in the direction of higher scores for the mothers of organic children tends to support the psychological hypothesis, i.e., that the mothers of schizophrenic children do not display more pathological attitudes than mothers of similarly behaving organic children.

II. Hypothesis II

A. The second hypothesis to be tested was that the attitudes which are defined as pathological will be shown more frequently by the mothers of schizophrenic children and the mothers of organically damaged children, than by the mothers of normal children.
### TABLE I

**PAIRED COMPARISONS OF MEAN TOTAL SCORES OF MOTHERS OF SCHIZOPHRENIC, ORGANIC, AND NORMAL CHILDREN**

<table>
<thead>
<tr>
<th>Groups Compared</th>
<th>$M_s$</th>
<th>$M_o$</th>
<th>$M_N$</th>
<th>d</th>
<th>d.f.</th>
<th>$d_{t.05}$</th>
<th>$d_{t.01}$</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schizophrenic and Organic</td>
<td>125.06</td>
<td>129.46</td>
<td>109.23</td>
<td>0.44</td>
<td>28</td>
<td>3.96</td>
<td>4.63</td>
<td>Reject</td>
</tr>
<tr>
<td>Schizophrenic and Normal</td>
<td>125.06</td>
<td>109.23</td>
<td>129.46</td>
<td>0.26</td>
<td>39</td>
<td>4.63</td>
<td>4.63</td>
<td>Reject</td>
</tr>
<tr>
<td>Organic and Normal</td>
<td>129.46</td>
<td>109.23</td>
<td>129.46</td>
<td>0.42</td>
<td>39</td>
<td>4.63</td>
<td>4.63</td>
<td>Reject</td>
</tr>
</tbody>
</table>
1. The hypothesis tested was that group S and group 0 will have higher total scores on the PARI than will group N.

The null hypothesis which states that there is no difference among the groups was tested by means of an analysis of variance. The analysis of variance statistics are presented in Table II. The F value resulting from the ratio of the mean squares among the three groups and among the subjects in the same group is 3.63. This value with two and fifty-three degrees of freedom is significant \( (P < .05) \). Thus, the null hypothesis may be rejected.

Using the \( t \) test technique, separate tests of the differences between the mean total scores of pairs of groups were calculated. These findings are presented in Table I. The results of the comparison of the schizophrenic and organic groups have been reported under Hypothesis I. The schizophrenic and organic groups were each compared with the normal group. The null hypothesis, which states that the population mean total scores are equal, was tested against that class of alternatives which states that there is a difference between the groups in the direction of higher scores for the schizophrenic and the organic groups when compared to the normal group. The difference between the means of the schizophrenic group (125.06) and the normal group (109.23) is 15.93 which is significant \( (P < .01) \) for thirty-nine
<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>Degrees of Freedom</th>
<th>Mean Square</th>
<th>F.</th>
<th>F .95</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>203.31</td>
<td>2</td>
<td>101.65</td>
<td>3.63</td>
<td>3.17</td>
<td>Reject</td>
</tr>
<tr>
<td>Within Groups</td>
<td>1483.73</td>
<td>53</td>
<td>27.99</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Scales</td>
<td>602.34</td>
<td>22</td>
<td>27.37</td>
<td>1.12</td>
<td>1.55</td>
<td>Accept</td>
</tr>
<tr>
<td>Interaction: Scales &amp; Groups</td>
<td>203.93</td>
<td>44</td>
<td>4.63</td>
<td>.19</td>
<td>1.39</td>
<td>Accept</td>
</tr>
<tr>
<td>Interaction: Pooled Subjects &amp; Scales</td>
<td>28371.80</td>
<td>1166</td>
<td>24.33</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
degrees of freedom. The difference between the means of the organic group (129.46) and the normal group (109.23) is 20.23 which is significant ($P < .01$) for thirty-nine degrees of freedom.

The results show that the null hypothesis can be rejected and the hypothesis of higher total scores for each of the pathological groups can be accepted. Although there were no predictions made with respect to the individual scales, the overall analysis of variance included scales as a dimension and this was done to see if the groups reacted to the scales differentially. As can be seen from Table II, there is no significant interaction between groups and scales. As can also be seen from Table II, there was no significant difference between scales.

III. Hypothesis III

A. The third hypothesis to be tested was that the attitudes which are subsumed under each of the five factors will be shown no more frequently by the mothers of schizophrenic children than by the mothers of similarly behaving organically damaged children.

1. There will be no difference in PARI scores between group S and group O on any of the five factors. The hypothesis tested is the null hypothesis. The overall analyses of variance for each factor, which are reported under Hypothesis IV, revealed a significant difference only for the fourth factor,
"Over-possessiveness." A $t$ test of the difference between the means of group $S$ (31.9) and group $O$ (32.3) revealed this difference to be .4 which is not significant for twenty-eight degrees of freedom. The results of the $t$ tests for the fourth factor are shown in Table III. The null hypothesis cannot be rejected for any of the factors and the inference is that the two groups do not differ on these variables.

IV. Hypothesis IV

A. The fourth hypothesis to be tested was that the attitudes which are subsumed under each of the five factors will be shown more frequently by the mothers of schizophrenic children and the mothers of the organically damaged children, than by the mothers of normal children.

1. Groups $S$ and $O$ will have higher PARI scores on each of the five factors than will group $N$. The hypothesis tested was the null hypothesis which states that there is no difference between any two of the groups on any of the five factors. This was tested against that class of alternatives which states that there is a difference between the groups in the direction of higher scores on each factor for group $S$ and group $O$ when compared separately with group $N$.

Separate analyses of variance were computed for the three groups on each of the five factors. Only the fourth factor, "Over-possessiveness," proved to be significant. The $F$ value resulting from the ratio of the mean squares among
**TABLE III**

**COMPARISONS OF MEAN SCORES ON FACTOR IV, OVER-POSSESSIVENESS, OF MOTHERS OF SCHIZOPHRENIC, ORGANIC, AND NORMAL CHILDREN**

<table>
<thead>
<tr>
<th>Groups Compared</th>
<th>M_S</th>
<th>M_O</th>
<th>M_N</th>
<th>d</th>
<th>d.f.</th>
<th>d_05</th>
<th>d_01</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schizophrenic and Organic</td>
<td>31.9</td>
<td>32.3</td>
<td>.4</td>
<td>28</td>
<td>2.4</td>
<td></td>
<td></td>
<td>Accept</td>
</tr>
<tr>
<td>Schizophrenic and Normal</td>
<td>31.9</td>
<td>22.7</td>
<td>9.2</td>
<td>39</td>
<td>3.1</td>
<td></td>
<td></td>
<td>Reject</td>
</tr>
<tr>
<td>Organic and Normal</td>
<td>32.3</td>
<td>22.7</td>
<td>9.6</td>
<td>39</td>
<td>3.1</td>
<td></td>
<td></td>
<td>Reject</td>
</tr>
</tbody>
</table>
the three groups and among the subjects in the same group is 3.9 which, for two and fifty-three degrees of freedom, yields a $P < .05$. A significant difference between the scales suggests that subjects score higher on some scales within a factor than on others. An $F$ of 19.4 is highly significant for four and two hundred and twelve degrees of freedom. The analysis of variance statistics for this factor are presented in Table IV.

The means for the schizophrenic and normal groups on the fourth factor were compared by means of a $t$ test and the results of this analysis appear in Table III. The difference between the means of the schizophrenic (31.9) and the normal (22.7) groups is 9.2 which is significant ($P < .01$) for thirty-nine degrees of freedom. On this factor, the null hypothesis can be rejected in favor of the stated alternative that the mothers of schizophrenic children will have a higher score than the mothers of normal children. This finding tends to confirm the hypothesis, only with respect to the factor of "Over-possessiveness," that the mothers of schizophrenic children manifest more pathological attitudes than the mothers of normal children.

The means for the organic and normal groups on factor four were also compared by means of a $t$ test and the results of this analysis appear in Table III. The difference between the means of the organic (32.3) and normal (22.7)
### TABLE IV

**ANALYSIS OF VARIANCE OF PARI SCALE SCORES ON FACTOR IV, OVER-POSSESSIVENESS, FOR 56 MOTHERS OF THREE GROUPS OF CHILDREN: SCHIZOPHRENIC, ORGANIC, AND NORMAL**

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>Degrees of Freedom</th>
<th>Mean Square</th>
<th>F</th>
<th>F .95</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>97.6</td>
<td>2</td>
<td>48.8</td>
<td>3.9</td>
<td>3.2</td>
<td>Reject</td>
</tr>
<tr>
<td>Within Groups</td>
<td>662.6</td>
<td>53</td>
<td>12.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Scales</td>
<td>132.0</td>
<td>4</td>
<td>3.3</td>
<td>19.4</td>
<td>2.4</td>
<td>Reject</td>
</tr>
<tr>
<td>Interaction: Scales &amp; Groups</td>
<td>21.4</td>
<td>8</td>
<td>2.7</td>
<td>1.6</td>
<td>1.9</td>
<td>Accept</td>
</tr>
<tr>
<td>Interaction: Pooled Subjects &amp; Scales</td>
<td>351.8</td>
<td>212</td>
<td>1.7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
groups is 9.6 which is significant (P < .01) for thirty-nine degrees of freedom. On this factor, the null hypothesis can be rejected in favor of the stated alternative that the mothers of organically disordered children will have a higher score than will the mothers of normal children. This finding tends to confirm the hypothesis that the mothers of organically disordered children manifest more pathological attitudes in the area of "Over-possessiveness" than do the mothers of normal children.

V. Analyses of Scores on the PARI in Relation To the Variables of Religion, Socioeconomic Group and Education

A. Religion

To examine the relationship between religious affiliations and expressed attitudes of mothers, an analysis of variance was calculated using the variables of condition of the child and of Catholic v. non-Catholic affiliation of the mother as bases of classification. Table V shows the results of these analyses. The groups are, as we know from Hypothesis II, seen to differ on the basis of the condition of the children (F = 4.62, P < .05). There is also a highly significant difference in the PARI scores based on the religious grouping of the mother (F = 12.3, P < .01). The difference is in the direction of more pathological attitudes being manifested by the Catholic mothers. An examination of the interaction (F = 2.58, P > .05) reveals this to be non-significant from which we may infer that the
### Table V

**ANALYSIS OF VARIANCE OF PARI TOTAL SCORES WITH TWO BASES OF CLASSIFICATION: CONDITION OF THE CHILD AND CATHOLIC-NON-CATHOLIC AFFILIATION OF THE MOTHER**

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>Degrees of Freedom</th>
<th>Mean Square</th>
<th>F</th>
<th>F .95</th>
<th>F .99</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condition of the Child</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schizophrenic, Organic</td>
<td>4676.1</td>
<td>2</td>
<td>2338.1</td>
<td>4.6</td>
<td>3.2</td>
<td>5.1</td>
</tr>
<tr>
<td>Normal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Religion of the Mother:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Catholic, Protestant-Jewish</td>
<td>6258.2</td>
<td>1</td>
<td>6258.3</td>
<td>12.3</td>
<td>4.0</td>
<td>7.2</td>
</tr>
<tr>
<td>Interaction</td>
<td>2611.9</td>
<td>2</td>
<td>1305.9</td>
<td>2.6</td>
<td>3.2</td>
<td>5.1</td>
</tr>
<tr>
<td>Individuals within</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subclasses</td>
<td>25259.2</td>
<td>50</td>
<td>505.2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
relationship of religious affiliation to scores is similar for the mothers of the different groups of children. From this analysis it would seem that the variables of whether or not a mother is Catholic as well as the question of her child's condition are both pertinent with respect to her expressed attitudes.

B. Socioeconomic Group

An analysis of variance was calculated to examine the relationship between membership in one of the three socioeconomic groups (professional and managerial, white collar and skilled worker, and semi and unskilled worker) and the classification of the child with respect to attitudes. Table VI shows the results of these analyses. The groups are, as we know from Hypothesis II, seen to differ on the basis of the condition of the children \( (F = 4.62, P < .05) \). There is also a highly significant difference in the PARI scores based on the socioeconomic grouping of the mothers \( (F = 6.31, P < .01) \). The difference is in the direction of the highest scores for the lowest socioeconomic group and vice-versa. The middle group obtained the middle scores. An examination of the interaction \( (F = 1.91, P > .05) \) reveals this to be nonsignificant from which may be inferred that the relationship between socioeconomic classification and PARI scores holds for all the groups based on the children's condition. From this analysis it would seem that the mothers' socioeconomic classification
TABLE VI

ANALYSIS OF VARIANCE OF PARI TOTAL SCORES WITH TWO BASES OF CLASSIFICATION: CONDITION OF THE CHILD AND SOCIOECONOMIC GROUP OF THE MOTHER

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>Degree of Freedom</th>
<th>Mean Square</th>
<th>F</th>
<th>F .95</th>
<th>F .99</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condition of the Child</td>
<td>4676.1</td>
<td>2</td>
<td>2338.1</td>
<td>4.6</td>
<td>3.2</td>
<td>5.1</td>
</tr>
<tr>
<td>Schizophrenic, Organic, and Normal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Socioeconomic Group of Mother:</td>
<td>6406.5</td>
<td>2</td>
<td>3203.3</td>
<td>6.3</td>
<td>3.2</td>
<td>5.1</td>
</tr>
<tr>
<td>Professional Managerial, White Collar Skilled, Semi and Unskilled.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interaction</td>
<td>3890.9</td>
<td>4</td>
<td>972.7</td>
<td>1.9</td>
<td>2.6</td>
<td>3.8</td>
</tr>
<tr>
<td>Individuals Within Subclasses</td>
<td>2383.2</td>
<td>47</td>
<td>507.1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
as well as the condition of her child are pertinent variables with respect to her expressed attitudes.

C. Education

An analysis of variance was calculated to examine the relationship between the education of the mothers, classified into three groups: two or more years of college completed; two or more years of high school completed; less than two years of high school, and the condition of the child with reference to expressed attitudes. Table VII shows the results of these analyses. The groups are, as we know from Hypothesis II, seen to differ on the basis of the condition of the children \((F = 4.22, P < .05)\). There is also a highly significant difference in the PARI scores based on the educational grouping of the mothers \((F = 6.23, P < .01)\). The difference is in the direction of the highest scores for the group with the least education and vice-versa. An examination of the interaction \((F = .55, P > .05)\) reveals this to be non-significant from which may be inferred that the relationship between education and PARI holds for all the groups based on the condition of the children.

It will be recalled that it was previously reported that the groups of mothers of the three differently diagnosed groups of children seemed to differ with regard to the comparability of the educations of the mothers in each group. It is evident from the Chi-square table that the main
TABLE VII

ANALYSIS OF VARIANCE OF PARI TOTAL SCORES WITH TWO BASES OF CLASSIFICATION: CONDITION OF THE CHILD AND EDUCATIONAL GROUP OF THE MOTHER

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>Degrees of Freedom</th>
<th>Mean Square</th>
<th>F</th>
<th>F  .95</th>
<th>F  .99</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condition of the child: Schizophrenic,</td>
<td>4676.1</td>
<td>2</td>
<td>2338.1</td>
<td>4.2</td>
<td>3.19</td>
<td>5.09</td>
</tr>
<tr>
<td>Organic, and Normal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Educational Group of the Mother: Two</td>
<td>6897.5</td>
<td>2</td>
<td>3448.8</td>
<td>6.2</td>
<td>3.19</td>
<td>5.09</td>
</tr>
<tr>
<td>plus years of college; two plus years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>of high school; less than two years of</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>high school.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interaction</td>
<td>1228.0</td>
<td>4</td>
<td>307.0</td>
<td>.6</td>
<td>2.56</td>
<td>3.75</td>
</tr>
<tr>
<td>Individuals within Subclasses</td>
<td>26003.8</td>
<td>47</td>
<td>553.3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
contribution to this difference (4.90 of 10.12) is provided by the greater number of mothers with grammar school educations in the schizophrenic group. To further investigate, an analysis of covariance was calculated with the variables of total PARI score and education in years. By this method the attitude scores are adjusted by using the education scores to remove the effect of education. Table VIII shows the results of this analysis. The obtained F of 2.81 ($P > .05$) falls just short of significance, but nevertheless raises the question of whether the differences between the groups of mothers might be a function only of the education of the mothers rather than also being independently related to the child's condition.

Closer scrutiny of the personal information reported by the mothers revealed that one mother (of a schizophrenic child) had reported four years of personal psychoanalysis. She was the only mother of all the subjects who reported such an experience. Four years of personal psychoanalysis would seem to be a variable which is intimately linked with education and which is very pertinent to expressed attitudes toward child rearing and family life. It was felt to be justifiable to take special cognizance of this case. It was decided to attempt to deal with this in two ways. The first way was to exclude this mother and calculate an analysis of covariance for total PARI scores and education in years for the remaining
## TABLE VIII

**ANALYSIS OF COVARIANCE OF PARI TOTAL SCORES FOR 56 MOTHERS OF THREE DIAGNOSTIC GROUPS AND OF EDUCATION IN YEARS**

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>Degrees of Freedom</th>
<th>Mean Square</th>
<th>F</th>
<th>F</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups: Schizophrenic, Organic, and Normal</td>
<td>2765</td>
<td>2</td>
<td>1382.5</td>
<td>2.8</td>
<td>3.2</td>
<td>Accept</td>
</tr>
<tr>
<td>Within Groups</td>
<td>25543</td>
<td>52</td>
<td>491.2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

64
cases. Table IX shows the results of this analysis. The obtained F of 3.49 (P < .05) permits us to infer that with the variable of education controlled, the attitudes of the remaining group of 55 mothers differ with respect to the condition of the child.

Because psychoanalysis may be viewed as education very pertinent to the expression of the attitudes being studied, it was decided to consider each year of psychoanalysis a year of education and to calculate another analysis of covariance with the special case included and her years of analysis added to her years of education. The results of this analysis are shown in Table X. The obtained F of 3.52 (P < .05), permits us to infer that, although the mothers' attitudes differ in relation to differences in education, they nevertheless differ significantly according to the child's condition when education is held constant. It may be noted that the psychoanalyzed mother had the greatest number of years of education of all subjects and the very lowest total score.

VI. Additional Results

Comparisons of the groups of mothers of schizophrenic and organic children on the variables of total PARI score and on each of five factors failed to reveal significant differences between these groups. The possibilities of other groupings of the mothers of the hospitalized children were therefore considered. Five variables seemed logically worthy
### TABLE IX

**ANALYSIS OF COVARIANCE OF PARI TOTAL SCORES FOR 55 MOTHERS\(^1\)**

**OF THREE DIAGNOSTIC GROUPS AND OF EDUCATION IN YEARS**

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>Degrees of Freedom</th>
<th>Mean Square</th>
<th>F</th>
<th>F</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.95</td>
<td></td>
</tr>
<tr>
<td>Schizophrenic, Organic and Normal</td>
<td>3297</td>
<td>2</td>
<td>1648.5</td>
<td>3.5</td>
<td>3.2</td>
<td>Reject</td>
</tr>
<tr>
<td>Within Groups</td>
<td>24072</td>
<td>51</td>
<td>472</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^1\)Psychoanalyzed mother excluded.
TABLE X

ANALYSIS OF COVARIANCE OF PARI TOTAL SCORES FOR 56 MOTHERS\(^1\)
OF THREE DIAGNOSTIC GROUPS AND OF EDUCATION IN YEARS

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>Degree of Freedom</th>
<th>Mean Square</th>
<th>F</th>
<th>F (.95)</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups:</td>
<td>3326</td>
<td>2</td>
<td>1663</td>
<td>3.52</td>
<td>3.18</td>
<td>Reject</td>
</tr>
<tr>
<td>Schizophrenic, Organic and Normal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Within Groups       | 24523          | 52               | 471.59      |     |       |          |

\(^1\)Psychoanalyzed mother included and each year of analysis is counted as a year of education.
of consideration and the information for examining them was available. The mothers were pooled as one group of mothers of hospitalized children and subjects for grouping on the other variables were drawn therefrom. The variables were:

A. Age of onset of the child's symptoms  
B. Age at time of admission to residential hospital  
C. Sex of the patient  
D. Whether or not the patient was the mother's first born  
E. Whether the mother had subsequently had a normal child  

The median chi-square test was applied to the above variables and the total PARI score of the mothers.

A. Age of onset of the child's symptoms  

The cutting point of three years of age was employed in a comparison based on the age of onset of the child's symptoms. Three years would appear to be an age beyond which it would become increasingly unlikely that a mother could deny that her child was not developing if such was the case. This cutting point seemed useful, therefore, in separating the congenitally ill or those who became ill in infancy from those children who presumably had developed to some extent before their illness. The results of this comparison appear in Table XI. The chi-square of .142 is not significant with one degree of freedom. We may infer that the age of onset of the child's symptoms is not related significantly to the mother's expressed attitudes as measured by the PARI.
TABLE XI

CHI-SQUARE COMPARISON OF THE NUMBER OF MOTHERS OF SICK CHILDREN WHOSE SYMPTOMS WERE RECOGNIZED BEFORE AND AFTER THREE YEARS OF AGE ABOVE AND BELOW THE MEDIAN OF PARI TOTAL SCORES

<table>
<thead>
<tr>
<th></th>
<th>Before 3 years</th>
<th>After 3 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above Median</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>Below Median</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>19</td>
<td>11</td>
</tr>
</tbody>
</table>

Chi-square = .142

d.f. = 1

P > .05
B. Age of child at time of admission to hospital

For the purposes of the analysis based on the age of the child at the time of admission to the hospital, the children were divided into three groups. One group was those who were admitted before six years of age. This age was selected because it is about the time that most children leave home, at least in the daytime, to attend school. The second group comprised the years from six to eleven. This so-called "latency period" falls between the significant times of starting school and of beginning puberty. The third period, that of eleven years and above, marks the lower limit of adolescence and suggests that some level of personality integration must have been achieved to allow the children to stay out of the hospital until this time. The chi-square statistics appear in Table XII. The obtained chi-square of .200 is not significant for two degrees of freedom. We may infer that the age of the child at the time of hospitalization is not significantly related to the mother's expressed attitudes as measured by the PARI.

C. Sex of the Patient

There is considerable theorizing in the psychoanalytically oriented literature about the mother's differential response to differently sexed children. There can be little doubt that mothers, indeed everyone, treats boys and girls differently with respect to many issues. Whether the sex of the hospitalized child is significantly related to the
TABLE XII

CHI-SQUARE COMPARISON OF THE NUMBER OF MOTHERS OF SICK CHILDREN WHOSE AGES AT TIME OF HOSPITALIZATION WERE CLASSIFIED INTO LESS THAN 6 YEARS, FROM 6 TO 11 YEARS, AND MORE THAN 11 YEARS ABOVE AND BELOW THE MEDIAN OF PARI TOTAL SCORES

<table>
<thead>
<tr>
<th></th>
<th>&lt;6 years</th>
<th>6-11 years</th>
<th>≥11 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above Median</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Below Median</td>
<td>4</td>
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<td>5</td>
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</tbody>
</table>

Chi-Square = .20

d.f. = 2

P > .05
attitudes of the mother might be considered a measure of an extreme form of this difference. The chi-square statistics appear in Table XIII. The obtained chi-square of .68 is not significant for one degree of freedom.

D. Whether or not patient was first-born child

Several considerations would appear to contribute to the pertinence of whether or not the patient was the first-born child. The most important are whether the mother has had previous intimate experience in raising children and whether she has successfully demonstrated that she can produce a non-hospitalizable child before she is faced with the harsh reality of having a grossly disordered child.

The chi-square statistics appear in Table XIV. The obtained chi-square of .132 is not significant for one degree of freedom from which it may be inferred that whether or not the patient is a first-born child is not significantly related to the mother's expressed attitudes.

E. Whether the mother had subsequently had a normal child¹

Whether that mother had subsequently had a normal child is related to the variable just above (D) insofar as it involves the mother's being able to demonstrate that she can produce at least one healthy child. It might also be considered a measure of whether the mother was able to recover sufficiently from the trauma of having a very ill child to

¹Data on this variable was available from only twenty-seven of the thirty mothers of ill children.
TABLE XIII

CHI-SQUARE COMPARISON OF THE NUMBER OF MOTHERS OF SICK BOYS AND SICK GIRLS ABOVE AND BELOW THE MEDIAN OF PARI TOTAL SCORES

<table>
<thead>
<tr>
<th></th>
<th>Boy</th>
<th>Girl</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above Midpoint</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>Below Midpoint</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>22</td>
<td>8</td>
</tr>
</tbody>
</table>

Chi-Square = .68

d.f. = 1

P > .05
### TABLE XIV

**CHI-SQUARE COMPARISON OF THE NUMBER OF MOTHERS WHOSE SICK CHILD WAS OR WAS NOT THEIR FIRST BORN ABOVE AND BELOW THE MEDIAN OF PARI TOTAL SCORES**

<table>
<thead>
<tr>
<th></th>
<th>First Born</th>
<th>Not First Born</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above Median</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Below Median</td>
<td>8</td>
<td>7</td>
</tr>
</tbody>
</table>

Chi-square = .132  

\[ \text{d.f.} = 1 \]  

\[ P > .05 \]
try again to have healthy children, or whether she may consider herself ill-fated, or too overburdened to have more children. The chi-square statistics appear in Table XV. The obtained chi-square of .864 is not significant for one degree of freedom from which it may be inferred that the variable of whether or not the mother has given birth to healthy children since the birth of the patient is not significantly related to her expressed maternal attitudes.
TABLE XV

CHI-SQUARE COMPARISON OF THE NUMBER OF MOTHERS WHO HAD AND HAD NOT DELIVERED HEALTHY CHILDREN SINCE THE SICK ONE ABOVE AND BELOW THE MEDIAN OF PARI TOTAL SCORES

<table>
<thead>
<tr>
<th></th>
<th>Had healthy child since</th>
<th>Had not</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above Median</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>Below Median</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>15</td>
</tr>
</tbody>
</table>

Chi-square = .864  
d.f. = 1  
P > .05
CHAPTER VI

DISCUSSION

I. General Discussion

In an attempt to take a fresh look at the characteristic attitudes toward child rearing and the family of the mothers of schizophrenic children, the four hypotheses of the present study were proposed. These are centered about the question of whether these mothers are attitudinally different from the mothers of brain injured children. Many of the workers who have considered the child’s illness to be, in large measure, a result of pathogenic maternal attitudes compared these mothers only to mothers of children with less severe disorders (neuroses, psychosomatic illness) which are also thought to be the result of pathogenic attitudes. Their investigations were thus limited to the examination of the differences between the mothers along a continuum of the severity of the child’s illness which was presumed to have a psychogenic basis. The present study has attempted to hold constant the severity of the child’s disorder (fact of hospitalization and comparability of symptoms) and to examine the differences between the mothers with respect to the dichotomy of: questionable causation
(schizophrenia) versus illness presumably not caused by pathological maternal attitudes (retarded and brain damaged). There are, therefore, two groups of children with different diagnoses but comparable severity of disorganization and behavior who presumably provide similar situations to which the mothers can react. If pathological attitudes are reactive as the physiogenic protagonists assert, they should appear in both groups of mothers.

The finding that the mothers of schizophrenic children showed less rather than more pathological attitudes than the mothers of brain damaged and retarded children tends to cast doubt upon the hypothesis that maternal attitudes cause schizophrenia. The difference between the means of the groups, although significant, was small and may still be considered consistent with the hypothesis of reactivity of attitude. Several possible explanations of this phenomenon came to mind. The fact that the onset of the symptoms occurred before three years of age in only six of the schizophrenic children and in thirteen of the retarded and brain injured children suggests that the mothers of the organically ill children were subjected to a more severe behavioral situation to which they might react. The element of hopelessness associated with the irreversibility of the organic condition may have served to frighten and embitter these women. It must be noted that a paper and pencil attitude scale which is useful in handling larger
numbers of subjects in rapid, exploratory fashion has limitations as to the depth of material elicited. There is always the problem of whether one obtains only conscious, manifest level, material about surface attitudes to the exclusion of some of the underlying attitudes. Interviews or projective test batteries would certainly provide deeper psychological material. One of the purposes of an exploratory approach should be to furnish clues and ideas about the most fruitful ways to employ interview and testing resources.

Because the observed difference between the means of the schizophrenic and organic groups was small, although significant, and in an unexpected direction, a question might still be raised about the ability of the instrument (PARI) to discriminate. This possibility was examined by comparing the attitudes of the mothers of the two groups of ill children with those of the mothers of a group of normal children. These comparisons showed that the mothers of both groups of ill children manifest more pathological attitudes than do the mothers of normal children. This attests to the ability of the instrument to discriminate and underscores the support of the over-all hypothesis: namely, that those groups of mothers with seriously disordered children to whom they may react will express more pathological attitudes than mothers without ill children to whom they may react.
The attempt to detect possible differences between the mothers in the schizophrenic and organic groups on more circumscribed clusters of attitudes than total score was unsuccessful. It may be inferred from this finding that no difference exists between these groups on any of the five clusters. This, lends further support to the hypothesis that the mothers of schizophrenic children do not have more pathological attitudes than mothers of organics.

When the schizophrenic and normal groups and the organic and normal groups were compared on each factor (Table III, Table IV), a somewhat different picture emerged. This may be seen most clearly by a separate consideration of each factor. The first, "Suppression and Interpersonal Distance," was described by Schaefer and Bell as related to the warmth and closeness of mother-child relationship and the degree of recognition of the individuality of the child. There were no significant differences among the groups on this factor, but the differences between the clinical groups compared to the normal were greater than when compared to each other. This suggests a trend toward more pathological attitudes being expressed by the clinical than by the normal group on this variable.

The content of the factor of "Hostile Rejection of the Homemaking Role" reveals dissatisfaction with the maternal and wifely roles and a high level of expressed hostility. This factor seems to be related to the concept of maternal
rejection. Again, there were no significant differences among the three groups.

The factor of "Excessive Demand for Striving" reveals a demand for conformity and achievement by the child to meet the parents' needs. It includes attitudes concerned with strict conformity to rules, reaching developmental goals at an accelerated pace, keeping children productively busy, and enforcing these demands for conformity and achievement. Once again, there were no significant differences among the three groups.

The fourth factor, "Over-Possessiveness," revealed no difference between the schizophrenic and organic groups and significant differences between each of these groups and the normal group. The central theme of this factor seems to be covert control of the child by keeping him indebted to the mother, dependent, and immature. One facet of this factor reflects a self-perception of the mother as a sacrificing, suffering woman. Schaefer and Bell\(^1\) felt that the attitudes included in this factor seemed to be related to parental behavior which leads to the dependency common in over-protected children. The significance of the differences between the clinical groups and the normal group may be viewed as further support for the reactive hypothesis. These ill children are indeed dependent and immature, often

---

to the point of complete helplessness. The mothers are
indeed sacrificing, suffering women. The over-possessiveness
may develop as a result of the necessity of taking special
care of very disordered children. On the other hand, it
may arise in whole or in part as an attempt to deny their
guilt and conflict over having such a child. Sheimo, in
discussing helping the parents of retarded and handicapped
children observed that "the most striking common factor
was the intense guilt and conflict in regard to the impulse
to reject the child."\(^2\) Coleman\(^3\) and Kanner\(^4\) in discussing
the parents of retarded children refer to their conflict,
guilt, and confusion. Bender\(^5\) and Peck, Rabinovitch and
Cramer\(^6\) report similar observations of the parents of
schizophrenic children.

\(^2\)Sheimo, S.L. Problems in helping parents of
mentally deficient and handicapped children. *Amer. J. Ment.
Def.*, 1951, 56, 42.

\(^3\)Coleman, J.C. Group therapy with parents of
mentally deficient children. *Amer. J. Ment. Def.*, 1953,
57.

\(^4\)Kanner, L. Parents' feelings about retarded

\(^5\)Bender, Lauretta. Childhood schizophrenia.
*Amer. J. Orthopsychiat.*, 1953, 17.

\(^6\)Peck, H.B., Rabinovitch, R.D., & Cramer, J.D.
A treatment program for parents of schizophrenic children.
The fifth factor, "Harsh Punitive Control," measures attitudes concerned with the wish for absolute parental control, and overt maternal dominance through severe measures. There are no significant differences between any of the groups. The organic group had a higher score than the schizophrenic, but not significantly so. This is consistent with the discussion of "Over-Possessiveness" in that these two factors seem to be mutually exclusive. The over-possessive mother is more likely to exercise her control by subtler methods than harsh punishment.

The additional analyses which were undertaken in an effort to examine variables within the pooled group of mothers of disordered children did not yield significant results. The variables of age of onset of the child's symptoms and age of the child at time of hospitalization were used to provide a measure of differences in maternal attitudes between mothers whose children were congenitally disordered or afflicted in early infancy and mothers whose children had developed more or less normally for a time and had then become ill. The variables of the child's sex and whether it was the first born were selected because they are clinically well known to be issues which are often of major importance to mothers. Whether the mother had subsequent healthy children was used as a measure of her recoverability from the trauma of having a very ill child. None of these variables were
found to differentiate the attitudes of the experimental group of mothers.

In general then, the reactive hypothesis of pathological attitudes of mothers of schizophrenic children tends to be supported and doubt is cast upon the notion of the mother's attitudes being the cause of schizophrenia. For a number of reasons, no stronger statement than this is warranted. One reason, of course, is that there is no way of knowing which of the observed attitudes were present prior to the birth of the child. Another possibility might be that an emotionally disturbed woman with pathological attitudes toward child rearing and the family could, because of physiological reaction to emotional stress, cause intrauterine damage to a child and thus give birth to a retarded and/or brain injured or schizophrenic child. It may be that the retardation and brain damage of the children in that group is not alone sufficient to account for their behavior, the extremeness of which is comparable to that of schizophrenic children, and that the additional factor of a disturbed mother-child relationship has combined to make them seriously enough ill to require hospitalization. There may also be real differences between these mothers which were not measured by the present instrument.

It must be remembered that the differences observed between the mothers of the sick children and mothers of normal children and the unexpected direction of the differences
between the mothers of schizophrenic and organic children were based on group comparisons. The results allow one to speak only of group differences. The groups of mothers of schizophrenic and organic children seem to have more generally pathological over-all attitudes with little specificity, other than the exceptions noted, as measured by the PARI. Any mother within any group may be an exception to the group mean on over-all score and/or a particular factor. Thus, there are mothers in the schizophrenic group who express less pathological attitudes than some mothers in the normal group.

No matter how disturbed the mother-child relationship, the child is a biological organism and his destiny is rooted in his basic structure. On the other hand, almost no matter how damaged the structure, a child is also a psychological being and must react to the psychological environment. At our present state of knowledge, there would appear to be no basis for considering biological or psychological causation as mutually exclusive alternatives for understanding the etiology of childhood schizophrenia. A much more useful hypothesis for the present might be the consideration of what Fabian and Holden\textsuperscript{6} call a "spectrum" of causation.

\textsuperscript{6}Fabian, A. & Holden, Marjorie A. Treatment of childhood schizophrenia in a child guidance clinic. \textit{Amer. J. Orthopsychiat.}, 1951, 21, 572.
Organic predisposition would occupy one end of the scale and psychological traumata the other. Either extreme or any combination might precipitate the same clinical pattern in different children. Thus, one case of childhood schizophrenia might be purely genetically caused, another very largely psychologically caused (although the presence of a constitutional predisposition is being increasingly mentioned in the psychogenic literature), and others caused by some inbetween combinations of pathological factors.

The finding of differences based on socio-economic grouping, education, and religion is consistent with general psychological knowledge about the relationship between these variables and expressed attitudes. The overlap was considerable. Thus the least educated mothers tended to belong to the lower socioeconomic group and profess the Catholic faith and the better educated mothers were Protestant and Jewish and in the higher socioeconomic groups. These results generally suggest that, irrespective of whether they have a schizophrenic or organic child, the college trained woman living in suburbia will have different attitudes from the grammar school educated woman living in an urban housing project.

II. Implications for Further Research

The present study has provided some leads which would seem worth pursuing. For example, if workers at a center which stresses the psychogenesis of childhood schizophrenia
were to study with equal intensity a group of organically disordered children such as were used in the present study and their mothers, might they not find that the constellation of characteristics which they ascribed to the mothers of schizophrenic children were not peculiar to that group as mothers of schizophrenic children, but were, instead, characteristics of mothers of severely disordered children?

Longitudinal studies would, of course, provide crucial evidence; such studies are underway at several hospitals. The enormity of the sample of women who would have to be seen pre-natally and followed for years to provide a sufficient sample of childhood schizophrenics precludes the hope that there will very soon be much light shed from this source.

Refinements of the present study might provide additional useful information. As diagnostic tools become sharper, samples of children in the various groups might be more closely matched on variables such as degree of impairment, and intensity of behavioral disturbance. The schizophrenic group might consist only of cases of early infantile autism, or only of early adolescent psychoses.

The PARI seems to be a useful instrument which, with further refinements should be able to discriminate with increased effectiveness. For example, the factor analysis was done with the scores of a rather homogeneous group of single, childless, student nurses. The normative samples of
mothers were obtained in military hospitals only one to four days following delivery. Their responses, therefore, may well be affected by a number of considerations specific to the immediate post-partum situation. It is to be hoped that a larger, more representative standardization population will be employed. The scales for fathers which are being developed at the National Institute of Mental Health could be usefully employed to study the problem of childhood schizophrenia.

There is a trend toward a greater interest in the possible role of the father in these various disorders. Unless the father is playing an important role in the home, the family provides less than a healthful atmosphere in which to expect any child to develop normally. Studying not only mothers' and fathers' attitudes separately, but the interaction as well, should enrich our knowledge of the psychological atmosphere in which the child develops.

The PARI might be useful to compare mothers of children with various adjustment and developmental problems. Another possible application would be as a screening device to be administered to mothers of children entering public school or even earlier at well-baby clinics. These applications of the instrument would be predicated on an as yet untested assumption that it would differentiate mothers of normal children from mothers of children with disorders less severe than schizophrenia or retardation.
CHAPTER VII

SUMMARY AND CONCLUSIONS

I. Summary

The purpose of this study was to investigate the relationship between maternal attitudes toward child rearing and the family and the problem area known as childhood schizophrenia. There is considerable disagreement about the etiology of the conditions which are classifiable under the broad heading of childhood schizophrenia: infantile autism, atypical development, symbiotic psychosis, as well as the schizophrenias of later childhood. Although variously named, these conditions are similar with respect to the child's isolation and lack of emotional contact, noncommunicative speech, compulsive and often bizarre behavior. The opinions of those whose work on the problem of etiology has been reported can be classified into two main groups. The psychogenic group contends that the impact on the child of the mother's behavioral expression of pathological attitudes toward child rearing and the family brings about a schizophrenic reaction; the biogenic group that there is an as yet undiscovered organic reason for the child's symptoms and that the mother's pathological attitudes, which the authors of
these opinions grant are often seen, arise as a result of the stress of trying to deal with the disordered child.

This study attempted some clarification of whether or not pathological attitudes toward child rearing and the family can be detected in the mothers of severely disturbed children irrespective of whether the etiology of the illness is considered to be related to maternal attitudes toward child rearing and the family. The term "pathological attitude" as it was used in this study had value implications but for lack of a better term was used as a descriptive one. It referred to relatively extreme scores on a particular instrument. Only that part of the question of the genesis of childhood schizophrenia centering about maternal attitudes was within the scope of the present study. It was felt, however, that a derivative of the total problem could be dealt with in such a way that it might shed some light on a point of contention among students of this subject.

In the literature which emphasizes the psychogenic view, the attitudes of the mothers of schizophrenic children are generally assumed to be more extreme forms of the neurotic attitudes common to mothers of less ill psychologically disturbed children. The mothers of schizophrenic children have not been compared to the mothers of brain injured and retarded children with comparable
severity of symptoms. The features assumed to have been causal may actually have been a result of dealing with a severely disordered child. The previous investigators, as did the present one, saw the mothers only after there had been some recognition of the child's abnormality so that any imputation of causality must be based on speculative processes which go beyond the data. It should be noted that the psychogenic-biogenic disagreement cuts across psychoanalytic lines; and further that therapeutic successes are conspicuous by their paucity regardless of the theoretical position upon which these attempts were based.

Clinicians who work with problem children and their parents and researchers in the general area of parent-child relationships have been stimulating each other to examine more closely the matter of parental attitudes and their associated behavior. As an outgrowth of this stimulation, there has been an increasing interest in the use of questionnaires, rating, and attitude scales. Recent studies have reported definite relationships between parental attitudes and behavior and the behavior of the child.

The Parental Attitude Research Instrument (PARI) a paper and pencil questionnaire, was developed as an outgrowth of the considerable current interest in the influence of parental attitudes and behavior upon the personality development of the child. The form of the PARI used in the present study is an inventory of 23 five-item scales designed to measure
parental attitudes toward child rearing and family life. Starting with items which previous investigators had found to have statistically significant discriminatory ability, three clinical psychologists sorted the items into groups which appeared to be psychologically homogeneous. Groups were then standardized on samples of 100 mothers, some items were dropped, and new ones were written. These were tried in short exploratory forms with successive small samples of mothers, then standardized with larger samples.

Five relatively independent factors or syndromes of parental attitude were extracted by factor analysis. The five factors are:

1. Suppression and interpersonal distance
2. Hostile rejection of the homemaking role
3. Excessive demand for striving
4. Over-possessiveness
5. Harsh punitive control

This analysis was done with a sample of 100 student nurses to investigate the existence of meaningful patterns of attitudes prior to the assumption of the role of wife and mother and whether these patterns may be related to stable personality characteristics which may influence behavior with future children.

A number of studies which have employed items similar to those in the PARI have demonstrated differences between parents whose children display different types of adjustment.
These findings support the contention that this general approach is an effective one. Considering that the present study may be categorized as multivariate research on group differences, the reliability and validity of the PARI seem to be acceptable for that purpose. In considering an instrument which would be useful to compare the attitudes of mothers of children with different illnesses and mothers of healthy children, the PARI seems to be the best available at the present time.

Assuming that the pathological attitudes toward child rearing and the family of the mothers of schizophrenic children exist as a result of the difficulties encountered in trying to raise an afflicted child, the following hypotheses were tested:

(1) the attitudes which are defined as pathological will be shown no more frequently by the mothers of schizophrenic children than by the mothers of similarly behaving retarded and brain damaged children.

(2) the attitudes of the mothers of the two groups of ill children S, schizophrenic, and O, retarded and brain injured, will differ from those of mothers N, all of whose children are and have been free of neurological; psychiatric or serious physical disorder.

(3) the attitudes which are subsumed under each of the five factors will be shown no more frequently by group S than by group O.
the attitudes which are subsumed under each of the five factors will be shown more frequently by groups S and O than by group N.

Fifteen mothers of hospitalized schizophrenic children constituted one group of subjects. In addition to the diagnosis of childhood schizophrenia, evidence was required of a number of behavioral signs and the absence of primary mental retardation or gross known organic signs.

Fifteen mothers of hospitalized mentally retarded and brain damaged children who exhibited behavioral symptoms comparable to those of the schizophrenic children constituted a second group of subjects, the organic group.

Twenty-six mothers, none of whose children was reported to have a history of neurological, psychiatric, or chronic physical illness constituted the normal group.

The groups of mothers were compared with respect to their composition according to age, religion, socioeconomic status and education. Only with respect to education did they differ and this variable was further explored.

The subjects were asked to respond to each of the items of the PARI by encircling a letter denoting one of four opinions about the item: strong agreement, mild agreement, mild disagreement, strong disagreement. Most of the items are constructed so that strong agreement reflects a pathological attitude. Weights of 4, 3, 2, and 1 were assigned to the
response categories from strong agreement to strong disagreement. A scale score consists of the sum of the item weights. The scale scores were converted to stanine scores by means of a table supplied by the authors of the PARI and the stanine scores were used in testing the hypotheses. Operationally, pathological attitudes are defined in terms of high stanine scores. The factor scores for each subject on each factor were computed by summing their stanine scores of each scale included in that factor. There was no absolute level of pathology of attitude. The comparative scores of the three groups were the pertinent consideration.

II. Results

The first hypothesis stated that the pathological attitudes toward child rearing and the family would be shown no more frequently by S, mothers of schizophrenic children than by O, the mothers of similarly behaving children diagnosed as organically damaged. The results show that the null hypothesis, which states that the population mean total scores are equal, can be rejected. The t test revealed that the 4.4 point different between the means of group S, 125.06, and group O, 129.46, is significant (P < .05) for twenty-eight degrees of freedom. The significant difference is in the direction of higher scores for the mothers of organically damaged children and thus supports the hypothesis that the schizophrenic group's mothers do not display more pathological attitudes.
The second hypothesis stated that pathological attitudes toward child rearing and the family would be shown more frequently by group S and group 0 than by group N mothers of normal children. On the basis of an analysis of variance and t tests, the appropriate null hypothesis was rejected thus supporting the experimental hypothesis.

The third hypothesis stated that the attitudes which are subsumed under each of the five factors will be shown no more frequently by group S than by group 0. On the basis of analyses of variance and a t test of the difference of the means on the fourth factor, which had a significant F, the appropriate null hypothesis was not rejected and the inference is that the two groups do not differ on these variables.

The fourth hypothesis stated that the attitudes subsumed under each of the five factors will be shown more frequently by groups S and O than by group N. On the basis of separate analyses of variance for each factor, only factor four, "Over-possessiveness," revealed a significant difference among the groups with an F of 3.9 (P< .05). The differences between the means of the S and N, and O and N groups on factor four were tested by means of t tests. Both of these differences were found to be significant (P< .01) and the null hypothesis may be rejected in favor of the stated alternative of higher scores for groups S and O than for group N on the factor of "Over-possessiveness."
By means of analyses of variance it was demonstrated that in addition to the differences among the groups based upon the condition of the child, the mothers' attitudes also varied according to their religion and socioeconomic grouping. An analysis of covariance was computed to test the group differences with the effect of education removed. It was found that the groups, although differing according to the amount of the mother's education, differed independently with respect to the condition of the child.

The mothers of schizophrenic and organic children were pooled as one group of mothers of hospitalized children. They were then grouped according to the following variables.

1. Age of onset of the child's symptoms
2. Age at time of admission to residential hospital
3. Sex of the patient
4. First born child or not
5. Has mother subsequently had a normal child

The median chi-square test was applied to the above variables and in none was found to be significantly related to the expression of maternal attitudes.

III. Conclusions

The findings on all four hypotheses tend to support the general hypothesis that mothers who are faced with comparably disturbed behavior will manifest comparable attitudes toward child rearing and the family and will manifest
more pathological attitudes than mothers of normal children who provide no special problem. The findings cast doubt upon the hypothesis that maternal attitudes are the cause of childhood schizophrenia.

Due notice was taken of the advantages and limitations of this type of approach to such a complex problem. It was justified on the grounds of providing rapid exploratory studies which should aim to provide a clearer focus and sharper hypotheses for more intensive depth investigations.

The likelihood of observed maternal attitudes being a combination of prior and reactive attitudes was discussed. The fact the differences obtained were group differences and that within each group were mothers with widely disparate attitudes was also discussed. The possibility was presented that the severity of the symptoms of the organically ill children might not be solely the result of organic factors but might have resulted from the impact of the mothers personality problems upon the child.

The merits of the "spectrum" idea of causation of childhood schizophrenia was highlighted. According to this notion, organic predisposition would occupy one end of the scale and psychological traumata the other. Either extreme or any combination might precipitate the same clinical pattern in different children.

Implications for further research were discussed.
## APPENDIX A

### RELIABILITIES OF PARENTAL ATTITUDE SCALES

<table>
<thead>
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<th>SCALE</th>
<th>PRIMIPARAE</th>
<th>MULTIPARAE</th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I</td>
<td>II</td>
<td>IV</td>
</tr>
<tr>
<td>N:</td>
<td>100</td>
<td>100</td>
<td>60</td>
</tr>
<tr>
<td>No. items:</td>
<td>10</td>
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<td>5</td>
</tr>
</tbody>
</table>

- **Equalitarianism**: 37 40 58 46
- **Suppression of Aggression**: 77 67 80 67
- **Breaking the Will**: 69 60 73 68
- **Strictness**: 78 69 79 74
- **Intrusiveness**: 86 76 85 73
- **Suppression of Sex**: 66 63 79 67
- **Acceleration of Development**: 71 65 61 70
- **Comradeship and Sharing**: 62 60 55 40
- **Deification**: 77 55 69 77
- **Martyrdom**: 78 67 85 67
- **Encouraging Verbalization**: 62 34 67 45
- **Seclusion of the Mother**: 77 70 75 70
- **Dependency of the Mother**: 69 54 66 47
- **Fear of Harming Baby**: 74 72 66 70
- **Fostering Dependency**: 75 77 76 73
- **Marital Conflict**: 71 69 68 60
- **Irritability**: 77 63 77 54
- **Excluding Outside Influences**: 77 63 77 74
- **Rejection of the Homemaking Role**: 79 68 73 68
- **Avoidance of Communication**: 74 57 71 64
- **Ascendance of the Mother**: 86 71 77 76
- **Inconsiderateness of the Husband**: 81 69 83 73
- **Approval of Activity**: 72 45 71 64

* Crossvalidated reliability of five best items selected from Form I or II calculated with Kuder-Richardson Formula 20.

** Pearson product-moment test-retest reliability.
APPENDIX B

PARENTAL ATTITUDE RESEARCH INSTRUMENT
APPENDIX B

PARENTAL ATTITUDE RESEARCH INSTRUMENT

Read each of the statements below and then rate as follows:

A    a    d    D
strongly mildly mildly strongly
agree   agree   disagree   disagree

Indicate your opinion by drawing a circle around the "A" if you strongly agree, around the "a" if you mildly agree, around the "d" if you mildly disagree, and around the "D" if you strongly disagree.

There are no right or wrong answers, so answer according to your own opinion. It is very important to the study that all questions be answered. Many of the statements will seem alike but all are necessary to show slight differences of opinion.

1. Children should be allowed to disagree with their parents if they feel their own ideas are better.  
   Agree    Dis-
   A  a  d  D

2. A good mother should shelter her child from life's little difficulties.
   A  a  d  D

3. The home is the only thing that matters to a good mother.
   A  a  d  D

4. Some children are just so bad that they must be taught to fear adults for their own good.
   A  a  d  D

5. Children should realize how much parents have to give up for them.
   A  a  d  D

6. You must always keep tight hold of baby during his bath for in a careless moment he might slip.
   A  a  d  D

7. People who think they can get along in marriage without arguments just don't know the facts.
   A  a  d  D

8. A child will be grateful later on for strict training.
   A  a  d  D
9. Children will get on any woman's nerves if she has to be with them all day.

10. It's best for the child if he never gets started wondering whether his mother's views are right.

11. More parents should teach their children to have unquestioning loyalty to them.

12. A child should be taught to avoid fighting no matter what happens.

13. One of the worse things about taking care of a home is a woman feels that she can't get out.

14. Parents should adjust to the children some rather than always expecting the children to adjust to the parents.

15. There are so many things a child has to learn in life there is no excuse for him sitting around with time on his hands.

16. If you let children talk about their troubles they end up complaining even more.

17. Mothers would do their job better with the children if father were more kind.

18. A young child should be protected from hearing about sex.

19. If a mother doesn't go ahead and make rules for the home the children and the husband will get into troubles they don't need to.

20. A mother should make it her business to know everything her children are thinking.

21. Children would be happier and better behaved if parents would show an interest in their affairs.

22. Most children are toilet trained by 15 months of age.
23. There is nothing worse for a young mother than being alone while going through her first experience with a baby.

24. Children should be encouraged to tell their parents about it whenever they feel family rules are unreasonable.

25. A mother should do her best to avoid any disappointment for her child.

26. The women who want lots of parties seldom make good mothers.

27. It is frequently necessary to drive the mischief out of a child before he will behave.

28. A mother must expect to give up her own happiness for that of her child.

29. All young mothers are afraid of their awkwardness in handling and holding young babies.

30. Sometimes it's necessary for a wife to tell off her husband in order to get her rights.

31. Strict discipline develops a fine strong character.

32. Mothers very often feel that they can't stand their children a moment longer.

33. A parent should never be made to look wrong in a child's eyes.

34. The child should be taught to revere his parents above all other grown-ups.

35. A child should be taught to come to his parents or teachers rather than fight when he is in trouble.

36. Having to be with the children all the time gives a woman the feeling her wings have been clipped.
37. Parents must earn the respect of their children by the way they act.

38. Children who don't try hard for success will feel that they have missed out on things later on.

39. Parents who start a child talking about his worries don't realize that sometimes it's better to just leave well enough alone.

40. Husbands could do their part better if they were less selfish.

41. It is very important that young boys and girls not be allowed to see each other completely undressed.

42. Children and husbands do better when the mother is strong enough to settle most of the problems.

43. A child should never keep a secret from his parents.

44. Laughing at children's jokes and telling children jokes makes things go more smoothly.

45. The sooner a child learns to walk the better he's trained.

46. It isn't fair that a woman has to bear just about all the burden of the raising children by herself.

47. A child has a right to his own point of view and ought to be allowed to express it.

48. A child should be protected from jobs which might be too tiring or hard for him.

49. A woman has to choose between having a well run home and hobnobbing around with neighbors and friends.
50. A wise parent will teach a child early just who is boss.

51. Few women get the gratitude they deserve for all they have done for their children.

52. Mothers never stop blaming themselves if their babies are injured in accidents.

53. No matter how well a married couple love one another, there are always differences which cause irritation and lead to arguments.

54. Children who are held to firm rules grow up to be the best adults.

55. It's a rare mother who can be sweet and even tempered with her children all day.

56. Children should never learn things outside the home which should make them doubt their parents ideas.

57. A child soon learns that there is no greater wisdom than that of his parents.

58. There is no good excuse for a child hitting another child.

59. Most young mothers are bothered more by the feeling of being shut up in the home than by anything else.

60. Children are too often asked to do all the compromising and adjustment and that is not fair.

61. Parents should teach their children that the way to get ahead is to keep busy and not waste time.

62. Children pester you with all their little upsets if you aren't careful from the first.

63. When a mother doesn't do a good job with children it's probably because the father doesn't do his part around the home.
64. Children who take part in sex play become sex criminals when they grow up.

65. A mother has to do the planning because she is the one who knows what's going on in the home.

66. An alert parent should try to learn all her child's thoughts.

67. Parents who are interested in hearing about their children's parties, dates and fun help them grow up right.

68. The earlier a child is weaned from its emotional ties to its parents the better it will handle its own problems.

69. A wise woman will do anything to avoid being by herself before and after a new baby.

70. A child's ideas should be seriously considered in making family decisions.

71. Parents should know better than to allow their children to be exposed to difficult situations.

72. Too many women forget that a mother's place is in the home.

73. Children need some of the natural meanness taken out of them.

74. Children should be more considerate of their mothers since their mothers suffer so much for them.

75. Most mothers are fearful that they may hurt their babies in handling them.

76. There are some things which just can't be settled by a mild discussion.

77. Most children should have more discipline than they get.
78. Raising children is a nerve-wracking job.

79. The child should not question the thinking of his parents.

80. Parents deserve the highest esteem and regard of their children.

81. Children should not be encouraged to box or wrestle because if often leads to trouble or injury.

82. One of the bad things about raising children is that you aren't free enough of the time to do just as you like.

83. As much as is reasonable a parent should try to treat a child as an equal.

84. A child who is "on the go" all the time will most likely be happy.

85. If a child has upset feelings it is best to leave him alone and not make it look so serious.

86. If mothers could get their wishes they would most often ask that the husband be more understanding.

87. Sex is one of the greatest problems to be contended with in children.

88. The whole family does fine if the mother puts her shoulder to the wheel and takes charge of things.

89. A mother has a right to know everything going on in her child's life because her child is a part of her.

90. If parents would have fun with their children, the children would be more apt to take their advice.

91. A mother should make an effort to get her child toilet trained at the earliest possible time.
92. Most women need more time than they are given to rest up in the home after going through childbirth.

93. When a child is in trouble he ought to know he won't be punished for talking about it with his parents.

94. Children should be kept away from all hard jobs which might be discouraging.

95. A good mother will find enough social life within the family.

96. It is sometimes necessary for the parent to break the child's will.

97. Mothers sacrifice almost all their own fun for their children.

98. A mother's greatest fear is that in a forgetful moment she might let something happen to the baby.

99. It's natural to have quarrels when two people who both have minds of their own get married.

100. Children are actually happier under strict training.

101. It's natural for a mother to "blow her top" when children are selfish and demanding.

102. There is nothing worse than letting a child hear criticisms of his mother.

103. Loyalty to parents comes before everything else.

104. Most parents prefer a quiet child to a "scrappy" one.

105. A young mother feels "held down" because there are lots of things she wants to do while she is young.
106. There is no reason parents should have their own way all the time, any more than that children should have their own way all the time.

107. The sooner a child learns that a wasted minute is lost forever the better off he will be.

108. The trouble with giving attention to childrens problems is they usually just make up a lot of stories to keep you interested.

109. Few men realize that a mother needs some fun in life too.

110. There is usually something wrong with a child who asks a lot of questions about sex.

111. A married woman knows that she will have to take the lead in family matters.

112. It is a mothers duty to make sure she knows her child's innermost thoughts.

113. When you do things together, children feel close to you and talk easier.

114. A child should be weaned away from the bottle or breast as soon as possible.

115. Taking care of a small baby is something that no woman should be expected to do all by herself.
APPENDIX C

FACTOR STRUCTURE OF ATTITUDES TOWARD CHILD REARING AND THE FAMILY
## APPENDIX C

**STRUCTURE OF ATTITUDES TOWARD CHILD-REARING AND THE FAMILY**

Earl S. Schaefer and Richard Q. Bell

Parental Attitude Factors -- 100 Nurses

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APPENDIX D

DESCRIPTION OF SUBJECTS
APPENDIX D

DESCRIPTION OF SUBJECTS
MOTHERS OF SCHIZOPHRENICS

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1. By occupation of husband
   1 = Professional-Managerial-Proprietor
   2 = White Collar-skilled worker
   3 = Semi-and unskilled worker
### APPENDIX D

#### DESCRIPTION OF SUBJECTS

**MOTHERS OF ORGANICS**

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1. By occupation of husband
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1. By occupation of husband
   1= Professional-Managerial-Proprietor
   2= White Collar-skilled worker
   3= Semi and unskilled
### DESCRIPTION OF MOTHERS OF NORMALS (continued)

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APPENDIX E

PARI CONVERSION TABLE FOR MULTIPARAE
### APPENDIX E

**PARI CONVERSION TABLE FOR MULTIPARAE**

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<td>6-8</td>
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<td>6-7</td>
<td>2. Fostering Dependency</td>
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<td>3. Seclusion of the Mother</td>
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<td>23. Dependency of the Mother</td>
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**Instructions:** Fill in Total Raw Score for each scale in the column provided. Obtain from the raw score sheet. Locate Stanine score which corresponds to the Total Raw Score for each scale and enter in the column provided.
LIST OF REFERENCES
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Bender, Lauretta. Childhood schizophrenia. The Nervous Child, 1942, 1, 138-140.


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Hattwich, B.W. Interrelations between the preschool child's behavior and certain factors in the home. Child Develpm., 1936, 7, 200-226.


Miles, Katherine A. Relationship between certain factors in the home background and quality of leadership shown by children. Unpublished doctor's dissertation, Univ. of Minn., 1945.


Schaefer, E. S., & Bell, R.L. Parental attitude research instrument: normative data. Preliminary working draft from the Section on Child Development, Laboratory of Psychology, National Institute of Mental Health, Bethesda, Md., 1955.


ABSTRACT

A review of the literature on childhood schizophrenia reveals a bipolar difference of opinion concerning etiology. One opinion is that the impact on the child of the mother's behavioral expression of pathological attitudes toward child rearing and the family brings about a schizophrenic reaction; the other opinion is that there is an as yet undiscovered organic reason for the child's symptoms and that pathological attitudes observed in the mother arise as a result of the stress of trying to deal with the disordered child. The present study is designed to compare maternal attitudes of mothers of schizophrenic children, mothers of similarly behaving retarded and brain injured children, and mothers of normal children.

The subjects were 15 mothers of hospitalized schizophrenic children with certain speech and behavior symptoms, 15 mothers of hospitalized brain injured and retarded children with similar behavior symptoms, and 26 mothers, all of whose children are and have been free of any serious chronic disorder.

The Parental Attitude Research Instrument, developed by Schaefer and Bell at the National Institute of Mental Health, a paper and pencil questionnaire consisting of 23 five-
item scales, was administered to each subject. Personal data about the age of the mother, her education, religion, husband's occupation, number of children, and family medical history was obtained from each mother after she had finished the PARI.

The results support the hypothesis that the mothers of schizophrenic children do not display more pathological attitudes than mothers of similarly behaving organic children, but that both groups have more pathological attitudes than mothers of normal children.

The results support the hypothesis that the mothers of schizophrenic children do not display more pathological attitudes than the mothers of organic children on any of the five factors into which the PARI was analyzed, but that both groups have more pathological attitudes with respect to "Over-possessiveness" than mothers of normals.

There were no significant differences between the attitudes of groups S and O on the variables of age of onset of the child's symptoms, age at time of hospitalization, sex of the patient, whether patient was first-born child, and whether the mother had subsequently had a normal child.

The results further show that in addition to the differences among the groups based upon the condition of the child, the mothers' attitudes also varied according to their education, religion, and socioeconomic grouping.
The findings tend to support the general hypothesis that mothers who are faced with comparably disturbed behavior will manifest comparable attitudes toward child rearing and the family and will manifest more pathological attitudes than mothers of normal children who present no special problem. The findings cast doubt upon the hypothesis that maternal attitudes are the cause of childhood schizophrenia. The likelihood of observed maternal attitudes being a combination of prior and reactive attitudes was discussed. The fact that within each group were mothers with widely disparate attitudes was also discussed. Also noted was the possibility that the severity of symptoms of the organically ill children might not be solely the result of organic factors.

The merits of the "spectrum" idea of causation of childhood schizophrenia were highlighted. According to this notion, organic predisposition would occupy one end of the scale and psychological traumata the other. Either extreme or any combination might precipitate the same clinical pattern in different children.

It was suggested that intensive investigation might disclose that the characteristics thought to be peculiar to mothers of schizophrenic children may be shared by many or all mothers of severely disordered children.
AUTOBIOGRAPHY
I was born on November 27, 1925 in Philadelphia, Pennsylvania. I am the older of two sons of Bernard B. and Lillian Klebanoff. I attended the public schools of Philadelphia, graduating from Overbrook High School in 1943.

I entered the University of Pennsylvania in 1943. My education was interrupted in 1944 by induction into military service. I resumed my college career in 1946, receiving my Bachelor of Arts degree in August, 1948.

I entered the University of Tennessee in Knoxville in 1948 and spent one year in residence there. I received my Master of Arts degree, in absentia, in 1951.

I entered Boston University in 1949. While enrolled in the Clinical Psychology Training Program, I received practicum training at Boston Psychopathic Hospital, the Psychosomatic Clinic of Massachusetts Memorial Hospitals, the
Briggs Clinic, and the Boston State Hospital.

Since September of 1952 I have been on the staff of the Halloran Child Guidance Center in Waltham where I hold the position of Mental Health Consultant.

For the past year, I have also been consulting school psychologist to the public schools of the city of Lowell.

I was married in December, 1948 to Harriet Zipin. We have one son, David Lewis, born October 2, 1954.