

PERSONALITY CHARACTERISTICS OF
CHILD-ABUSING MOTHERS

Dissertation for the Degree of Ph. D.
MICHIGAN STATE UNIVERSITY
ALAN LEE EVANS
1976



This is to certify that the

thesis entitled

*Personality Characteristics of
Child Abusing Mothers*

presented by

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has been accepted towards fulfillment
of the requirements for

Ph.D. degree in *Psychology*

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Date *9/10/76*

0-7639



ABSTRACT

PERSONALITY CHARACTERISTICS OF CHILD-ABUSING MOTHERS

By
Alan Lee Evans

Personality differences between Aid to Dependent Children (ADC) welfare mothers who were known to have physically abused one or more of their children in the preceding six months and non-abusive ADC mothers were studied by diverse objective and projective measures. Hypotheses derived from the research literature suggested that abusive mothers (AM) would generally show greater psychopathology than the non-abusive mothers (NAM). More specifically, AMs were expected to score higher than NAMs on measures of aggression and hostility, depression and apathy, pathogenesis, preference for a punishment-oriented disciplinary stance, lack of affective expression, and frustrated needs for dominance, independence, and nurturance. AMs were expected to score lower than NAMs on measures reflecting the successful resolution of Erikson's developmental conflicts. NAMs were expected to score above AMs on measures of self-esteem, positive family concept, nurturance, and a preference for using rewards for disciplinary purposes.

The 20 women selected to represent each group averaged about 29 years of age, 11.5 years of education, and 3.1 children--whose age averaged 6.6 years. All were administered Tryon's MMPI scales of

Depression and Apathy and Resentment and Aggression, the Sense of Personal Worth scale from the California Test of Personality, questionnaire measures of Reward- and Punishment-oriented disciplinary attitudes, the Family Concept Inventory, a series of seven Eriksonian developmental conflict scales, and selected stimuli from the Thematic Apperception Test (TAT). Their TAT responses were coded by trained undergraduate raters to yield seven measures: aggression, nurturance, pathogenesis, absence of affective expression, frustrated dominance, frustrated independence, and frustrated nurturance. Beyond the actuarial variables cited earlier, data on marital status and race were also collected to assess the role of other potentially important variables.

Statistically significant differences in the expected directions were found between the abusive and non-abusive mothers, using multivariate analyses of covariance with all non-nominal actuarial measures as covariates, for 13 of the 20 dependent variables. The TAT pathogenesis measure marginally distinguished between the groups by the two-tailed test ($p < .08$) although this was significant by the more appropriate one-tailed test. Of the six measures which failed to reliably differentiate between these groups, four had been derived from the TAT (nurturance, pathogenesis, absence of affect, frustrated dominance, and frustrated nurturance). The others were the two (Reward and Punishment) disciplinary attitude measures. The effects of mother's chronological age, education, number and average age of children were either statistically non-significant or were controlled for in the multivariate analyses, as were race and marital status.

Applying discriminant analysis to these data, 85% (34 of 40) of these mothers were correctly classified into abusive versus non-abusive groups by the six non-Eriksonian objective measures and also by the seven Eriksonian scales. The TAT measures correctly classified 82.5% of these women. Even higher classificatory accuracy was achieved by combinations of these measures. The optimal combination, including the actuarial measures, produced nearly perfect (97.5%) discrimination between the abusive and non-abusive mothers. The most powerful standardized discriminant function coefficients, in descending order, were: TAT Frustrated Independence (3.57); TAT Aggression (-2.72); Pathogenesis (2.09); Frustrated Dominance (-2.06); Average Age of Children (1.99); Eriksonian Trust versus Basic Mistrust (1.97); MMPI Depression and Apathy (1.56); Eriksonian Intimacy versus Isolation (1.43); Eriksonian Identity versus Role Confusion (-1.24); and Number of Children (-1.14).

There were many significant intercorrelations among the personality measures. An examination of their interrelationships for the pooled samples based upon McQuitty's typal analysis revealed a single diffuse cluster. Its primary positive pole was anchored by Eriksonian Trust and Industry scale versus a negative pole anchored by two MMPI scales: Depression and Apathy plus Resentment and Aggression. A secondary positive pole was defined by the Sense of Personal Worth scale of the California Test of Personality and Eriksonian Initiative. A secondary negative pole was best denoted by TAT Frustrated Nurturance and TAT Aggression. A comparison of the intercorrelational structures within the abusive and non-abusive subgroups revealed similar patterns with the notable exception of the TAT Aggression. This latter variable

linked with relatively objective aspects of family structures for the non-abusive mothers, correlating positively with having older children ($r = .43$) and using Punishment as a disciplinary method ($r = .46$). Among the abusive mothers, however, TAT Aggression correlated significantly more highly than for non-abusive mothers with TAT Frustrated Dominance ($r = .59$), and TAT Frustrated Independence ($r = .55$). Finer appraisal of the responses which contributed to TAT Aggression suggested a qualitative difference. The abusive mothers tended to produce responses featuring violent deaths more frequently than did the non-abusive mothers. Related themes were apparent in the abusive mother's more frequent positive responses to certain questionnaire items: "At times I think I am no good at all" (80% vs. 30%) and "At times I feel like smashing things" (75% vs. 35%).

The present findings support a prior report of major personality differences between abusive and non-abusive mothers by Melnick and Hurley. These differences appear independent of race, for the present study was based upon a predominantly White sample (82.5%), whereas the Melnick-Hurley sample was all Black. The present results more firmly outline the pervasiveness of abusive mother's psychopathology and suggest that basic character traits--such as Trust versus Mistrust of others--are involved, while information and attitudes toward discipline seem less relevant. This finding implies that psychotherapy for abusive women might fruitfully focus upon basic developmental issues. Despite the apparently low base rate of child abuse in the general United States population, these clear personality differences between abusive and non-abusive women raise the possibility of useful predictive measures.

PERSONALITY CHARACTERISTICS OF CHILD-ABUSING MOTHERS

By

Alan Lee Evans

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Psychology

1976

ACKNOWLEDGMENTS

Great appreciation goes to Dr. John Hurley, the chairman of my dissertation committee, for his considerable time, patience, support, constant cooperation, and encouragement. His knowledge in the field of personality and personality research was substantial and invaluable.

I am grateful to Drs. Bertram Karon, Donald Grummon, and Gilbert DeRath for taking time out of busy schedules to review the research proposal, sit on my committee, and evaluate the research.

Numerous individuals and agencies cooperated to make this study possible. Dr. Ray Helfer reviewed the proposal and wrote a letter of support for the project. Dr. Gary Vanden Bos loaned TAT protocols.

Many from the Michigan Department of Social Services participated. At the state level, Mr. Leland Hall reviewed the proposal and gave initial approval; Mr. Phil Sprague oversaw the implementation of the procedures for recruiting subjects; Mr. Reg Carter provided essential actuarial data. Ingham County Protective Services personnel spent considerable time and effort enlisting the volunteer subjects as did the Basic Family Services Unit; special mention goes to Ms. Brenda Peterson, Ms. Ilse Joseph, Ms. Kathy McDonald, and Mr. Mike Luea.

Tri-County Community Mental Health provided the facilities for this study. My supervisor (and committee member), Dr. DeRath, was always supportive and cooperative.

Three MSU students, Deborah Holmes, Linda Gabriel, and David Irwin, spent many long hours learning the rating system for the TAT stories and rating the data. Ms. Nancy Martin of the College of Education Office of Research Coordination consulted regarding statistical procedures as did Dr. Terry Allen. The Graduate Research Office provided clerical assistance for part of the quantities of typing involved.

To all of these people, my gratitude.

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CHAPTER I

LITERATURE REVIEW OF CHILD ABUSE

Introduction

History

The deliberate infliction of injury on children by their parents is only a recently recognized clinical phenomenon (Mant, 1968). Smith (1944) recorded several serious cases of child abuse and called for recognition and correction of the problem. Primarily because of roentgenological developments the diagnosis of deliberately inflicted trauma has been made possible. Caffey (1946) reported cases of infants who suffered both subdural hematomas and recurrent fractures of unknown etiology. Wooley and Evans (1955) concluded that the syndrome described by Caffey was deliberately inflicted by parents and suggested social and psychological rehabilitation for abusive parents.

Kempe, Silverman, and Steele (1962) referred to the constellation of symptoms indicative of inflicted childhood physical trauma as "the battered child syndrome." The organization of the symptoms into a clinical entity and use of a term particularly suggestive of horror apparently had great effect on people in the field of medicine, social work, and psychology. Bibliographies on child abuse list a dearth of publications prior to 1962 and a proliferation thereafter (Paulson & Blake, 1967, U.S. Children's Bureau, 1969).

Definition of Child Abuse

Kempe and Helfer (1972) define an abused or "battered" child as "any child who received non-accidental physical injury (or injuries) as a result of acts (or omissions) on the part of his parents or guardians." The preceding definition of child abuse will be used for this dissertation.

Epidemiological Aspects of Child Abuse

Incidence

An accurate and rigorous estimate of the incidence of child abuse and the attendant demographic and sociological characteristics of the children and parents involved has yet to be made. The only major attempt to investigate the incidence of child abuse was made by Gil (1970). By the time of his survey, most states in the United States had set up central registries for child abuse cases, but for those who had not, Gil set up a registry for the purpose of his research. The data included all legally reported child abuse incidents when committed by the child's actual parent or guardian in all states for 1967 and 1968. Cases of fatal abuse were not included; a separate press survey was utilized to tabulate cases which led to the death of the child. An incidence of child abuse of 8.4 per 100,000 in 1967 and 9.3 per 100,000 in 1968 was reported.

The estimates made by Gil have been widely criticized. Helfer (1970) notes that current reports in New York City and Denver estimate a rate of child abuse of 175 to 225 per million, which is two or three

times the rate reported by Gil. Fontana (1970) challenges Gil's results by estimating there to be 2,000 cases of child abuse in New York City alone, a third of Gil's entire total for the United States. Reported cases are the "tip of the iceberg"; many cases never come to the attention of the authorities, or if they do, never reach central registries.

Another study by Gil (Gil & Noble, 1967) sought to ascertain people's knowledge and attitudes regarding child abuse. Three percent of those surveyed responded that they knew of an incidence of child abuse. It is suggested that this figure represents the upper limits of child abuse.

Estimates, based on various state and city figures, of child abuse are frequently in the range of 25 to 40 cases per 100,000 population (American Academy of Pediatrics' Commission on Infant and Pre-School Children, 1972; Kempe & Helfer, 1972; Trouern-Trend, 1972). Holter and Friedman (1968) estimate that 10 to 11% of all children under six years of age seen in an emergency clinic are there as a result of battering--the figures based on the screening and investigation of such cases at a major medical center. Of patients under age 15 admitted to the children's division of Cook County Hospital, .4% (245 of 50,000) were treated for injuries or illness resulting primarily from abuse (Stone, 1970). Radiologists at the University of Colorado Medical Center find that one-fourth of the fractures occurring in the first two years of a child's life are from inflicted abuse as are 10 to 15% of the trauma in the casualty department (Kempe, 1971).

The Child Abuse Prevention Act of 1974 created the National Center on Child Abuse and Neglect; the center was assigned the responsibility of sponsoring and overseeing research concerning identification, prevention, and treatment of child abuse. Of primary concern was the nonexistence of a system to "measure the actual incidence and severity of child abuse and neglect" (U.S. Dept. of Health, Education, and Welfare, 1975). Under the aegis of the center, the American Humane Association is developing a system for collecting data on the reported incidence of child abuse. Since it is widely held that the officially reported incidence is far below the actual incidence, the center is in the initial stages of trying to develop an acceptable and accurate estimate of actual occurrences of child abuse. By August of 1975 there was to have been a study completed on how to assess the actual incidence, with the actual incidence study beginning in late 1975 or early 1976. No reports are currently available regarding the status of either study.

Fatality Rate

In 1966 there were 10,920 murders committed in the United States with one out of twenty-two being a child killed by his own parent (Resnick, 1969). Of the persons canvassed in Gil's (1967) survey who knew of incidences of child abuse, 6% reported a fatality. A mortality rate of 50% for children diagnosed as manifesting the battered child syndrome has been reported (Sullivan, 1964). Other studies report fatality rates of 14% (Greengard, 1964); 10% (Allen, 1969; Holter, 1968); 3% (Heins, 1969); 4% (Johnson & Morse, 1968);

20% (Silverman, 1965); 11% (Simpson, 1968); 1.5% (Skinner & Castle, 1969); and 3.6% (Snedeker, 1962) with a median reported rate of 10%. Of children returned to the custody of their parents after being battered, one out of every two die, estimates Fontana (1971).

Recidivism

A minimum of 30% of the children first abused physically are re-abused (Allen, 1969). Most studies report a recidivism rate of between 35% and 65% (Ebbin, Gollub, Stein & Wilson, 1969; Gil, 1967; Gil, 1970; Johnson & Morse, 1968; Silverman, 1965; Skinner & Castle, 1969; Sussman, 1968), while one study (Young, 1964) reports a rate of 95% for children who are returned to the parental home where no rehabilitative efforts are made. If one child in a multi-child family is abused, other children are frequently abused as well. Skinner and Castle (1969) report abuse of more than one child in 49% of the cases where there are additional siblings while Sussman (1968) reports 60% of the siblings are abused. Twenty-four cases of physically abused children were investigated by Isaacs (1972); in two families there had been previous sibling death from unexplained injury; in three, children had died suddenly from an infection not thought to be serious; and in two, parents had been previously in prison for child neglect.

Locality

Most child abuse occurs in the victim's home (Gil, 1970); more abuse per population unit occurs in areas where the population is highly concentrated (Branigan, 1964; Simons, 1966, Young, 1964).

In addition to finding an over-representation of child abuse cases in urban areas, Simons (1966) found that child-abuse cases occurred more often in the most deprived areas. Research on the urban location of abusive military families in El Paso, Texas indicated that abusive families live significantly more often in a disorganized, "run-down" part of the city than did control, non-abusive military families (Sattin & Miller, 1971). In exception to the research trend, Gil (1968a) concluded on the basis of his survey that the incidence of child abuse occurred roughly in accordance with population distribution.

Religion

Elmer's (1967) study in Pittsburgh found more abusive parents were protestant than the general population at large. In Gil's survey (1970) religion of abusive families was "roughly" equal to the population at large. Nurse (1964) noted that only one abusive family in twenty was religiously affiliated. The literature shows no clear-cut trends; religion per se does not appear to be an important discriminating factor although nonaffiliation with religious or other social groups may be significant, as shall be discussed later.

Race of Abuser

The relationship between race and abuse status is unclear. Several studies reported abuse more prevalent proportionately among non-White than White populations (Gil, 1970; Glazier, 1971; Simons, 1966). Studies by Adelson (1961) and Schloesser (1964) indicated that the incidence of child abuse among racial groups was approximately

equal to the group's representation in the general population.

Ebbin et al. (1969) studied a group of child abusers which contained a significantly greater percentage of Whites than non-Whites when compared to a control group, although they reported awareness that special circumstances involving method of referral may have been the reason for the result.

When higher rates of child abuse are reported among non-Whites, it may reflect reporting biases by officials, higher proportionate use of public facilities by non-Whites (Gil, 1970; Wasserman, 1967), and/or more frequent denial by Whites of child abuse when committed (Glazier, 1971). Gil (1971) expresses the opinion that biased reporting aside, it is likely that proportionately more non-Whites are abusers because they have more social problems, fewer alternative opportunities to express hostility, and less drive expression inhibitions.

Social Class of Abuser

While child abuse clearly is not limited to those of the lower socioeconomic classes (Gil, 1968a; Glazier, 1971), the majority of reported child abuse is committed by persons of low social class and low income who are characterized by less than a high school education, unskilled jobs, poor housing, frequent unemployment, and periodic placement on welfare rolls (Allen, 1969; Blue, 1965; Branigan, 1964; Cameron, Johnson, & Camps, 1966; Gelles, 1973; Gil, 1968a, 1970, 1971; Glazier, 1971; Holter, 1968; Johnson & Morse, 1968; Lukianowitz, 1969; Nurse, 1964; Simons, 1966; Sussman, 1968; Wylie & Wylie, 1970;

Zuckerman, 1972). Child abusers were found to have lower rank in the military than controls (Sattin & Miller, 1971). All infanticide in Denmark over a three-year period occurred exclusively among the lowest class (Harder, 1967). Data indicate that while abusers tend to be from the lower classes, their educational level was often higher than the family occupational level (Elmer, 1967; Terr, 1970).

Child abuse rates for lower-class members of society, as for non-whites, may be over-estimated because physicians are more likely to report child abuse when the patient is treated by a public agency and are more likely to suspect child abuse when the person is a member of a certain socioeconomic or ethnic group different from the physician (Simons, 1966). Gil (1971), using the argument he used previously in regard to non-white child abuse to question views by those such as Simons, counters that lower-class persons are more frequently abusers because there are more stresses in poor ghettos, fewer opportunities to develop alternative ways of expressing hostility, less drive expression inhibition, and poorer "bio-psycho-social" functioning because of burdens such as fatherless homes and extra children. Gelles (1973) theorizes that children may be abused because they are a real cause (i.e., not projected) for family financial problems at lower economic levels, causing those at that level to be more frequently abusive.

Sex of Abuser

The mother is usually reported as the most frequent child abuser; the father is reported the next most frequent with parental substitutes a distant third most frequent (Allen, 1969; Gil, 1970; Heins, 1969;

Lukianowitz, 1969; Schloesser, 1964; Simons, 1966). One study found approximately equal representation of abusive mothers and abusive fathers (Bryant, 1963), while another reported the father the most frequent abuser with the mother the next most frequent (Gil, 1967). Occasionally the abuse is committed by a babysitter, sibling, other relative or companion of the parent (Allen, 1969). When both parents are in the home (approximately 30% of abusive families are headed by a female [Gil, 1971]), the father is more frequently the abuser (Delsordo, 1963; Gil, 1970). When the father is the abuser, it is more likely to be an older child who is abused (Schloesser, 1964). When child abuse results in a fatality, it is more likely the mother who is directly responsible (Gil, 1968b). When a father's abuse results in fatality, he frequently was involved to a great degree with maternal-type care of a very young child (Schloesser, 1964).

Age of Abusive Parent

Evidence indicates the abusive parent is younger than the average parent of an equivalent-aged, nonabused child (Branigan, 1964; Cameron, 1966; Heins, 1969; Holter, 1968; Komisaruk, 1966; Lukianowitz, 1969; Michael, 1972). Only Wylie and Wylie (1970) report no difference in age between abusive and nonabusive parents.

Types of Child Abuse

Typical manifestations of child abuse are head injuries, fractures, dislocations, burns, and bruises (Holter, 1968; Skinner & Castle, 1969). Greengard (1964) found that burning was the most frequent abusive act.

Seventy percent of severely abused children are "physically tortured" (Young, 1964). In addition to the previously mentioned fatality rate for abused children, 8% suffer permanent damage (Gil, 1967). Unusual and sometimes sensational cases of child abuse have been reported: force-feeding of tranquilizers (Dine, 1965); starvation (Adelson, 1963); fatal force-feeding of pepper (Adelson, 1964); death from human bites (Polomeque and Haurston, 1964); and serious burning from being fried in a pan (D'Ambrosio, 1970).

Characteristics of Abused Children

Physical Health

Approximately 70% of abused children have physical or developmental abnormality at the reporting of first abusive injury (Johnson, 1968). A disproportionate number are in the bottom tenth percentile for height and weight (Morse, 1970). A population subject to physical attack on a repeated basis could be expected to be in generally poor physical condition. Evidence suggests, however, that 25 to 35% have physical abnormalities unrelated to the abuse syndrome (Branigan, 1964; Burrell & Burrell, 1968).

Abused children are significantly more often born prematurely, as evidenced by low birth weights of less than 5 1/2 pounds (Elmer, 1967; Simons, 1966; Skinner & Castle, 1969; Terr, 1970). Klein (1971) compared the percentage of low birth weight among battered children seen at Montreal Children's Hospital over a nine-year period with the overall low birth weight percentage. Of the abused children, 23.5%

were low birth weight infants compared to 7 to 8% for the overall population in Montreal. When he investigated prematurity rates among those who were nonabusive but had deprived backgrounds, he found that low birth weight was 10%.

Illegitimacy and Prematurity

Out-of-wedlock pregnancies and premarital conceptions of subsequently abused children are significantly higher than for children not subsequently abused (Burrell & Burrell, 1968; Cameron, 1966; Cohen, 1966; Holter, 1968; Johnson and Morse, 1968; Simons, 1966; Sussman, 1968). Gibbens and Walker (1956) found illegitimate births among abused children to be twice as high as among control groups composed of both the population at large and children who subsequently became juvenile delinquents. A recent study reports findings at variance with the above results. The investigator (Corey, 1975) compared 48 children who were hospitalized for battering with a random sample of 50 nonabused children hospitalized during the same 1965-1973 time period. He found no differences in numbers of premature births or post-natal hospitalizations for the two groups of children.

Sex of the Abused Child

Several studies indicate more males than females are abused; differences reported ranged from slight and statistically insignificant to fairly large (Brannigan, 1964; Cosgrove, 1972; Gil, 1967, 1968a; Helfer, 1968; Skinner & Castle, 1969). Two studies noted equal numbers of male and female abused children (Cameron, 1966; Corey, 1975).

Sibling Position

Several researchers suggest that sibling position is an important determinant of which particular child in a family is abused. Some concluded that it is the last-born sibling (including only sibling) who is most subject to abuse in the majority of cases (Bennie, 1969; Branigan, 1964; Cameron, 1966; Lukianowitz, 1969) while others report "almost half" of abused children are only or oldest children (Glazier, 1971; Michael, 1972). Gelles (1973) clarifies the differential findings by concluding that it is often the youngest child, the only child or the addition to a large family who is abused because it is he who is the more often unwanted, frustrating, or financially ruinous.

Age of Abused Child

Most data indicate that children are relatively "young" at the time of abuse, young usually meaning less than three years old (Branigan, 1964; Burrell, 1968; Cameron, 1966; Cosgrove, 1972; Gil, 1968b; Heins, 1969; Michael, 1972; Schloesser, 1964; Skinner & Castle, 1969; Sussman, 1968; Zuckerman, 1972). In a study by Cook County Hospital, utilizing a large sample, 67% of abused children were less than four years old while 24% were less than one year old (Stone, 1970). Caution in interpreting the statistics is urged in that abuse of an infant may be more clinically significant than similar abuse to an older child; emergency room figures may more reflect injury susceptibility of infants than age of child when abused (Gil, 1970). While many, possibly the majority, of abused

children are relatively young, some studies report that children over six years of age represented over 50% of their sample (Gil, 1970; Glazier, 1971); this suggests that while child abuse is concentrated among infants and those under three, the phenomenon also involves older children and even young adolescents.

Psychological Characteristics

Johnson (1968) evaluated 101 abused children and noted that as a group they suffered a great deal of abnormality; 19 had subnormal speech development, 7 were mentally retarded; 16 had toilet training problems; 14 had feeding problems, 8 had physical handicaps or deformities, and 2 suffered brain damage. Some of the abnormality was a result of child abuse and some was not; the children were, nevertheless, very difficult to care for and usually unlikeable.

Milowe and Lourie (1964) have observed the irritating cry and general lack of appeal of abused babies. Abused children are typically withdrawn, academic failures (Young, 1964), and uncoordinated (Galdstone, 1971). Retardation is a frequent problem (Elmer, 1967; Morse, Slatler & Friedman, 1970; Sandgrund, 1974). Abused children show several "affective composites"; some show fear whenever contacted, cry and try to hide, while others are withdrawn, apathetic, and blunted (Galdstone, 1965). They are often shallow and compliant and some display hostile behavior which appears to be "retaliatory to the abusing parent" (Terr, 1970). When differentiating abused from non-abused children in a clinical situation, normal children cling to parents and show that they are reassured by their parents' presence.

Abused children "cry hopelessly" under treatment and examination, but cry little in general; do not look to parents for assurance; show no expectation of being comforted; are less afraid than other children of admission to wards; are alert to danger; keep asking what will happen next; don't want to go home; and assume a "poker face" when discharge is approaching (Morris, 1964).

Abused children display frequent pathological responses to aggressive drives. Abused boys under treatment often use an outburst of aggression towards another as a means of "adult attention through forced intervention" while girls tend to be more clinging and subdued (Galdstone, 1971). Self-mutilation (defined as "an overtly painful or destructive act committed by a child on his own body") in males was significantly related to a prior history of child abuse (Green, 1968).

It is theorized that physically abused children are likely "to become tomorrow's murderers and perpetrators of other crimes of violence if they survive" because of intense repressed anger as a result of their brutal treatment, their lack of safe and approved hostility outlets, and modeling after the abusing parents of violent behavior in response to even minor frustration (Curtiss, 1963).

Easson (1961) evaluated eight adolescents who had displayed "murderous" behavior and found that three had been physically abused and all had been overtly or covertly rejected by their parents.

Duncan (1958) studied and interviewed the families of six middle-class murderers who were not alcoholic, brain damaged, or members of gangs.

Two of the six were psychotic while the other four had suffered extreme

cruelty and beating from one of their parents throughout their childhood and adolescence. Of 100 patients at Colorado Psychopathic Hospital who were admitted for homicidal threats, 20 had experienced as children "parental brutality which ranged from repeated whippings to loss of teeth, dislocation of a shoulder, and other injuries" (MacDonald, 1963).

In a study which mentioned the incongruity of its findings with the studies which find a high incidence of child abuse in the past history of adolescents and adults who commit violent crimes, it was found that children with substantiated history of being parentally abused showed "significantly less overt and fantasy aggressive behavior as well as lower ratings on competitiveness, truancy, quarrelsomeness, destructiveness, and verbosity." The abused showed significantly higher attributes of "somberness, docility, desire to placate, appetite, masturbation, and thumbsucking" (Rolston, 1971).

Role of Child in Abuse Episode

An abusive incident is sometimes the result of an over-reaction to developmental problems common to all children, such as wetting, crying, or refusal of food (Delsordo, 1963; Glazier, 1971). Milowe and Lourie (1964) note that "the child goes through its own developmental stages with its own critical conflicts and critical needs; these needs and conflicts become involved with the regression and fixation points in the parents pathology and quite specifically are involved in triggering off the battering." A parent may batter each of his

children when a particular developmental stage is reached. A correct developmental response makes the parent feel competent and good. A "mistake" makes the parent feel incompetent and unloved. The child is abused during efforts to make him act in an acceptable manner and to make the parent feel loved.

The frequency of peculiar, irritating and provocative qualities of abused children, both before and after serious abusive episodes, has been previously discussed. Gibbens and Walker (1956) describe a vicious cycle where a behaviorally atypical child in a poor environment precipitates abuse, the abuse furthering his behavioral problems, leading to further abuse. The significance of the relationship between premature birth and abuse is hypothesized as due to the fact that premature babies are more difficult to care for, are more irritable, have to be fed more often, and require extra efforts in mothering (Nurse, 1967).

Noting that children may be so obstreperous as to contribute to their own abuse, Milowe and Lourie (1964) find that some infants fight and exhibit negative behavior from the first days of their life. They postulate that the cause may be central nervous system damage, congenital hyperactivity, or a case of "primary infant masochism," which has been documented in English foundling homes: the children kick, scream and fight as if to "avoid direct contact with people." The cause may be attributable to "the baby being improperly held or unfortunate nipple position." Since many abusive parents are very sensitive to their child's response or lack thereof, the delay of a child's "smiling

response" can lead to abuse, and the smiling response can be delayed by deprivation of mothering--another example of the vicious cycle of child abuse.

Sociological Characteristics of Abusive Parents

Isolation

Abusive parents are repeatedly described as isolated from society at large (Allen, 1969; Bennie & Sclare, 1969; Bryant, 1963; Disbrow, 1969; Elmer, 1967; Feinstein, Paul & Esmiol, 1964; Holter, 1968; Kempe, 1972; Morris & Gould, 1963; Nurse, 1964; Young, 1964). Half belong to no formal social group (Bryant, 1963) such as a religious organization (Elmer, 1967; Nurse, 1964; Young, 1964) and many have few informal relationships with neighbors (Allen, 1969; Young, 1964) or friends (Morris & Gould, 1963). Their isolation results in their having few outside sources to mobilize when experiencing a crisis (Kempe & Helfer, 1972). Whether or not abusive families tend to be highly mobile is a point of disagreement. Several note a tendency to change residence frequently (Disbrow, 1969; Gil, 1970; Johnson, 1968), perhaps as an attempt to flee stressful situations (Skinner & Castle, 1969). Others describe abusive families as having lived in their communities "for years" (Bryant, 1963; Lukianowitz, 1969).

Marital Instability

Evidence supports the contention that families which abuse children are more maritally unstable than average (Branigan, 1964; Elmer, 1967; Morse, Slatler & Friedman, 1970; Nurse, 1964; Tuteur & Glalzer, 1959;

Wylie & Wylie, 1970; Zuckerman, 1972). Ebbin et al. (1969) found abusive families to be significantly ($p < .001$) more unstable; 30% of abused children lived with both parents versus 53% in the control group. Fifty-four percent lived in homes where the natural parent was single, separated, divorced or living common law, while for the control group, 39% lived under such circumstances ($p < .001$). According to Gil's (1970) nationwide survey, 29% of abused children lived in homes without a father substitute while 19% had a stepfather in the family. Simons (1966) and Corey (1975) report, by contrast, that the marital situation is not much different in terms of separation or divorce between abusers and non-abusers. Approximately one-third of both groups are divorced or separated.

Family History

Parents who are abusive of their children frequently have been brought up in harsh, cruel, unrewarding and emotionally deprived circumstances (Kempe, 1971; Lukianowitz, 1969; Nurse, 1964; Steele, 1970), and they often have been abused themselves as children (Cohen, 1966; Gibbens & Walker, 1956; Silver, Dublin & Lourie, 1969; Silverman, 1965). Gil (1970) reports that at least 14% of abusive mothers and 7% of abusive fathers were physically abused as children. In a study of 47 abusive families, Komisaruk (1966) found that 69% of abusive mothers and 61% of abusive fathers sustained a parental figure loss in early life and that many others related other emotionally traumatic experiences. Steele and Pollock (1968) observed that while not all abusive parents had been physically abused as children, all had

been subjected to intense parental demands at a very early age for support, attentiveness, submissiveness and love. They had been raised in a very parent-oriented system and had not experienced maternal love, care, or support.

Child abuse is sometimes traceable to three generations (Steele, 1970; Steele & Pollock, 1968). Oliver and Taylor (1971) collected data on five generations of a family antecedent to a battered baby and found extensive maladjustment in all. Of 49 individuals in one family tree, 6 died as babies (at least one of the six was battered to death), 3 others were battered babies, 10 were subjected to physical cruelty or starvation, 10 were abandoned on one or more occasions, 11 were left to fend for themselves for long periods of time and 2 were subjected to prolonged periods of incest.

Gibbens and Walker (1956) note child abusers frequently come from disturbed and unfavorable life situations. The life history of an abusive parent is likely to include separation from one or both parents from birth, poor parental or parent substitute relationships, large families, disturbed school behavior, poor work records, alcoholic bouts, poor military performance, frequent mental hospitalization, major physical illness, criminal conviction, low intellectual ability, marital difficulties, behaviorally unusual offspring, disturbed sexual development, poor housing, and poverty.

Relationship With Child

In addition to physical abuse, the relationship of a child abuser to his child differs in other ways. Extrafamilial activities

and contacts which would be normally accepted are prevented, as are outside attempts to involve the abused child in rehabilitative medical and social programs (Young, 1964). Discipline is often haphazard and inconsistent (Elmer, 1967; Nurse, 1964; Young, 1964). The parents often display jealousy of any attention shown towards the child (Allen, 1969) and act as if it were the child who is supposed to meet the psychological needs of the parent (Morris & Gould, 1963). Abusive parents frequently show little concern about their child (Branigan, 1964); this unconcern may be especially noticeable when the abusively injured child is brought in for medical care. The parents act as if the child's injury is an imposition on them; they ask neither about the seriousness of the injury nor when the child will be discharged (Morris, 1964).

Personality Characteristics of Abusive Parents

General Description

Several dispositional attributes are frequently applied to abusive parents. They are described as defensive, suspicious, angry and hostile, dependent, immature, impulsive, self-centered, rejecting, rigid, anxious, passive, insecure, lonely, hypersensitive, and hysterical. They display a low tolerance for frustration, feelings of inadequacy, a lack of guilt about child treatment, and a lack of empathy. With few exceptions, the descriptions are based on impression rather than systematic research.

Controlled Studies

A few controlled studies using objective psychological measures of personality have been reported. Melnick and Hurley (1969) administered to abusive and matched, non-abusive mothers a series of personality measures: Family Concept Inventory, California Test of Personality, and Thematic Apperception Test. The results indicated that abusive parents had a lower self-concept, a lower family concept, a higher need for nurturance, higher TAT pathogenesis scores, and were more frustrated in their attempts at meeting their emotional needs.

Wright (1976) administered Rorschach Inkblots, the Minnesota Multiphasic Personality Inventory (MMPI), and the Rosenzweig Picture Frustration Study to abusive parents and controls. Since the number of subjects was relatively small (13 abusive and 13 controls) and the number of dependent variables large (22) the results must be interpreted cautiously. The abusive parents scored significantly higher on the Rosenzweig scales of Group Conformity and Intropunitiveness and on the K scale and lie scale of the MMPI. Elevated Pd scores approached significance. Because the abusive parents appeared more "normal" on the items where the manifest content was more apparent but more disturbed on the more subtle items, the authors concluded that the abusive parents tried to portray themselves as normal but suffered underlying pathology. This was interpreted as an indication that the intent of a psychological test must be disguised when abusive parents are studied.

Paulson, Afifi, Thomason, and Liu (1975) gave MMPI's to 60 abusive parents and 100 controls. An item analysis of each of the 566 items

was performed. A true response on items 11, 61, 71, 136, 193, 250, 280, 334, 374, 413, 419, 426, 453, 455, 456, 467, 478, 571 and a false response on 32, 126, 141, 161, 226, 255, 294, 322, 325, 336, 416, 482, 491, 516, 560 discriminated the abusive mothers from the non-abusive mothers. Use of the items resulted in two "false positive" scores and two "false negative" scores.

Psychopathology

There is near unanimity that child abusers frequently show serious emotional disturbance and even mental illness, but that abuse attributable to psychosis is rare (Blue, 1965; Burrell & Burrell, 1968; Cohen, 1966; Delsordo, 1963; Elmer, 1967; Gibbens & Walker, 1956; Helfer & Pollock, 1968; Johnson, 1968; Kempe, 1971; Komisaruk, 1966; Michael, 1972; Morse, 1970; Nurse, 1964; Simons, 1966; Sussman, 1968; Wasserman, 1967). Kempe (1971) estimates 5% of abusive parents are psychotic and 5% are aggressive psychopaths. Steele and Pollock (1968) conclude "most" abusive parents display serious psychopathology.

A general inadequacy on the part of the parents has been observed; abusive parents are often very real failures in terms of holding jobs, managing finances, keeping house, maintaining friendships, and raising children (Melnick & Hurley, 1969; Tuteur & Glalzer, 1959; Young, 1964). A relatively high proportion of abusive parents have been found to be of subnormal intelligence (Bennie, 1969; Blue, 1965; Cameron, 1966; Johnson, 1968; Lukianowitz, 1969; Morse, 1970; Sheridan, 1956). Komisaruk (1966) studied 47 cases of child abuse and found the mother

to be mentally deficient (with an I.Q. of less than 75) in 13 of those cases.

An area of particular conflict for abusive parents appears to be hostility expression, with some parents manifesting both hostility and depression and others manifesting primarily one characteristic (Gibbens & Walker, 1956). Some abusive parents are depressed in general, but brutal towards their children, who serve as a "hostility sponge" (Wasserman, 1967). They do not appear to use normal, psychotic, or neurotic defenses for their frustration and anger, but rather lessen anxiety by acting out their angry feelings (Cohen, 1966). Bryant (1963) observed abusers fell into three psychopathological constellations: those who are almost constantly aggressive and hostile, those who are rigid, compulsive and lack warmth, and those who are passive and dependent.

One prevalent point of view is that abusive parents have great unresolved dependency needs and become angry at dependent children because they interfere with their own dependency gratification. They also become angry when the child, to whom they have attributed adult qualities, does not meet their own dependency needs (Cohen, 1966; Delsordo, 1963; Helfer, 1968; Meerloo, 1967). Competing with children for attention, affection, and dependency causes unconscious anger, overtly manifested as depression; the repression periodically fails and the parent becomes abusive and even homicidal (Zilboorg, 1931).

Currie (1970) observes in regards to child abuse that "we are not dealing with moral turpitude but with compelling unconscious

motivation." The behavior of the parent towards the child suggests the child is seen as threatening to annihilate the parent. The parent feels so persecuted that the only anxiety reducer is a "ferocious" attack on the child.

Several authors have noted a particular loss of control incident to the abusive episode. Komisaruk (1966) terms it "unrestricted instinctual drive energy." The parents long-repressed conflicts are exacerbated by the child's actions and demands which leads to expression of repressed emotions. The abuse is possible because inadequate parent-
ing to the abusive parent resulted in inadequate identification with the parental role. Tuteur and Glalzer (1966) hypothesize the occurrence of an "ego rupture" on the part of the parent during the abusive episode; after the act the parent recompensates. Like Komisaruk, they attribute the abuse to inadequate parental identification because of absent, rejecting, or otherwise inadequate parental figures. Fray (1970) views the abusive incident as a primitive defensive reaction, reflexive in nature which is a catastrophic reaction to a sudden crisis in a life situation. After the act, the parent is perplexed and confused (Bennie, 1969). Abusive parents may be unable to relieve their rage in fantasy, fantasy being a way of alleviating anger which is a normal response to obnoxious and obstreperous behavior on the part of the child (Flynn, 1970). Freedman (1975) suggests that the abusive parent has a split personality, where "parallel walled-off self-systems" exist with the parent being alternatively "good-mother" and "bad-mother."

Morris and Gould (1963) observed a process in abusive families which they term role-reversal. Abusive parents perceive their infants and small children as adults who are purposefully not giving them affection and cooperation and who are deliberately producing negative behavior. The parents feel towards their children, whom they now perceive as adults, the same way as they felt towards their parents when their parents failed to meet their needs. "The natural dependency of the babies reinforces the projected image of the original parents, who demanded, could not be satisfied, and who did not satisfy the current parent."

It is commonly observed that abusive parents project onto the child negative attributes of themselves or significant others and then respond abusively to the projected image (Bennie, 1969; Galdstone, 1965; Laury, 1970; Laury & Meerloo, 1967; Nurse, 1964; Steele & Pollack, 1968). Abusive parents "perceive the child as a persecutory adult" and speak of him as if his personality were fully formed and he were a miniature adult (Galdstone, 1965). Terr (1970) observed that in each case of child abuse, the abuser had a fantasy about the child that was influential in his treatment of the child. Some examples given were "fear of punishment from the child" (who is perceived as a witch, devil, or other evil being), "fear of infants helplessness, fear of the child's seductiveness, and disappointment in the child's inability to meet pre-conceived hope." Children are blamed for being premaritally conceived, illegitimate, or brain damaged and are sometimes perceived as a "defeatable substitute for a formidable adversary" (Delsordo, 1963).

Children play out roles forced on them by parents who have neurotic conflicts regarding their parents and siblings. The sex of the child may determine whether or not it is singled out for abuses. Often a child is a fun plaything whose needs the parents enjoy meeting; the parents identify with the child's polymorphous gratification. Then, after the parents have had their vicarious enjoyment, their superego comes into prominence and punishes the projected id (Zillboorg, 1930). Psychologically the abusive parent has "a license from the superego to abuse his child, which is irrevocable, handed down to him at the time he was abused by his original superego figure" (Bakan, 1971).

An unsatisfactory marriage may be a significant cause of an abusive incident, which is "a displacement of aggression and sadism" generated by the relationship (Bennie, 1969). Anger towards a spouse is projected onto a child and then the child is beaten (Flynn, 1970). The child is chosen because he is the most defenseless in the family (Gibbens & Walker, 1956). In four cases of infanticide investigated by Niedermeyer (1962), a husband was unfaithful during his wife's pregnancy; the mother identified the child with the father, toward whom she developed intense anger. She withdrew her love and affection from the child which resulted in serious behavioral problems on the child's part. The behavioral problems led to a vicious cycle of further withdrawal which led to exacerbation of even further behavioral problems. Ultimately the child was murdered. Stern (1948) considers child abuse and infanticide manifestations of the Medea complex where a woman kills or abuses her son(s) in revenge against her husband.

Disturbed sexual histories of abusive parents has been observed. One-third of the male child abusers which Gibbens and Walker (1956) studied vehemently denied any masturbation, even as adolescents. Often they were indifferent to women until they became involved with very aggressive women. A high proportion of women who had committed filicide, as compared to controls, had had incestual experience (Olive, 1966).

Interactional Theories of Child Abuse

Child abuse appears to be the result of intrapsychic, social, and environmental forces. The abusive incident is usually preceded by a family crisis involving such stresses as an additional pregnancy, family disputes, financial worries, or medical problems, and is a response to the crisis, to characteristics of the child, and to intrapsychic conflict (Holter, 1968). Green, Gaines, and Sandgrund (1975) identify three interacting components which facilitate the occurrence of child abuse: (1) an abuse prone personality, (2) an abnormal child or one who "accidentally" resembles significant other persons in the abusive parent's life against whom the parent has strong negative feelings, and (3) environmental stress.

Conclusion

As evidenced by the literature many observations have been made and many theories proposed regarding child abuse. A picture emerges of the abusive parent as one who manifests serious psychopathology,

a psychopathology which is not usually psychotic and perhaps not even neurotic. The personality picture may be unclear because there are a number of causes for child abuse. Yet despite contradictions and vagaries, many observations have aspects in common, suggesting the existence of unitary elements in the personality of abusive parents. The picture would be more likely clear if observations were less impressionistic and more systematic. With a few notable exceptions, studies of abusive parents are either entirely unsystematic or use small samples, no or no acceptable control group, and primitive statistical analyses.

The personality component has prominent status among the factors involved in the occurrence of child abuse and further investigation is called for. There appears to be little efficacy in additional impressionistic reports. A true experiment elucidating cause and effect relationships cannot, of course, be made using human subjects. To deliberately set out to cause a parent to be abusive is unthinkable. We must, therefore, be content with post hoc studies, but this limitation need not leave us with mere impressions. The field of personality has long dealt with the difficulties of studying "causes" of behavior and has many tools to offer, tools which will be utilized in the present study of the personality characteristics of child-abusing mothers.

CHAPTER II

METHOD

Introduction

The Melnick and Hurley (1969) study of personality attributes of child-abusing mothers is one of the few published studies of abusive parents well regarded for its methodology and frequently cited for its significant results (Spinetta & Rigler, 1972; Wright, 1976). The goal of the present study was to further investigate personality attributes of child abusers, utilizing the results of the Melnick-Hurley study and the increased knowledge regarding child abuse to conduct a more comprehensive and wide-ranging study. Significant elements of the Melnick-Hurley study were replicated; aspects suggested by the literature review were included for study, and hypotheses generated by the present author's work with abusive parents were tested. A larger number of subjects than heretofore reported in studies of the personality of abusive mothers were included in the study.

Hypothesis

The basic hypothesis of the research was that mothers who physically abuse their children would manifest substantially greater psychopathology as measured by personality tests compared to a control

group of non-abusive mothers. Abusive mothers (AM's) were anticipated to display significantly greater abnormality than non-abusive mothers (NAM's) on paper-and-pencil measures of dependency, hostility and aggression, self-concept, depression, and attitudes towards family. They were expected to give indication of having unsuccessfully resolved conflicts basic to their earlier developmental stages. AM's were predicted to score more highly on projective measures of need frustration, pathogenesis, absence of affect, and hostility and to score lower on measures of nurturance. It was hypothesized that abusive mothers would have a stronger punitive attitude towards discipline and would endorse use of reward as a behavior control to a lesser degree.

Dependent Variables

To measure the hypothesized differences between the abusive and non-abusive mothers, an objective questionnaire and the Thematic Apperception Test (TAT) were administered. The objective questionnaire was designed to measure consciously held attitudes and personality data of which the mothers were aware and which they would report. The projective test was administered in order to obtain data on more underlying feelings and attitudes, aspects of which the mothers may have been unaware or unwilling to report directly.

Objective Tests

Measures of dependent variables used in the Melnick-Hurley study which discriminated at a level of significance of .10 or less were incorporated into the present study. Objective measures replicated were the Family Concept Inventory (Appendix A), and the self-esteem subscale of the California Test of Personality (Appendix B). The format of the Family Concept Inventory remained unchanged while the self-esteem subscale was slightly modified. The self-esteem items in the original form are written so as to be answered yes or no. In order to make the object of this particular set of items less obvious and to streamline the administration of test items, the questions were rewritten so as to be true or false. In this form they could be included among a larger group of questions. The rewritten self-esteem subscale as included in the administered questionnaire is in Appendix H.

Child abuse is first and foremost an aggressive act; the aggressive aspects of the abusive mother's personality and her handling of hostility is an essential area for thorough investigation. The measure used in the Melnick-Hurley study did not discriminate on the dimension of aggression and hostility between experimental and control mothers; while the measure was retained (see discussion in the section on projective measures) the need for an additional measure was indicated.

A review of existing paper-and-pencil personality tests revealed few purporting to measure hostility which had sufficient documentation of reliability and validity. Tryon's (1966) cluster analysis of items

from the Minnesota Multiphasic Personality Inventory identified one cluster which he labelled Resentment and Aggression. Lorr (Buros, 1972) in a review of another measure of hostility using MMPI items (The Hostility and Direction of Hostility Questionnaire) indicates the Tryon scale may be a preferred measure of hostility. Given the reported reliability ($r = .87$ when using the 21 item scale), the lack of a better scale, and the simplicity of administration, the Tryon scale was chosen as the experimental measure of hostility. The items forming the resentment and aggression scale are in Appendix C, while the items as included in the administered questionnaire can be seen in Appendix H.

Frequent mention is made in the literature of depression and apathy on the part of abusive parents, a not unseemingly observation given such attributes are commonly associated with underlying feelings of hostility and aggression. The Tryon (1966) scale of MMPI items labeled Depression and Apathy were included in the objective measures. The test has a reported reliability for the 28 item scale of .94. The statistical procedures used in obtaining the scales and the manifest content of the items indicate acceptable validity. By choosing the Tryon scale of depression for this study, it could be combined for administrative purposes with the other Tryon scale and the rewritten self-esteem scale, thereby making less obvious to subjects the intent of all three sets of items. The Tryon Depression and Apathy subscale can be seen in Appendix D, while the items, as included in the administered form, can be seen in Appendix H.

Disciplinary Values

The literature makes no report of a study of child-abusing parent's attitudes towards discipline. Inclusion of the measure serves to either confirm or rule out an attitudinal difference. McKinney (1971) suggests that parents use two basic methods of discipline: reward and punishment. He has developed a Likert-type scale for measuring parents' attitudes and values regarding application of reward and punishment to their children and the scale was used in this study (see Appendix E).

Eriksonian Measures

The literature on child abuse makes frequent mention of isolation, mistrust, low self-esteem, role diffusion, and passivity as characteristics of abusive parents. These descriptions closely correspond to Erikson's (1963) descriptions of personality attributes of those who unsuccessfully resolve the conflicts central to each of the developmental stages. An assessment device to measure the differences between AM's and NAM's in their resolution of these conflicts has potential to elucidate important aspects of the abusive parent's personality.

To measure the mothers' degree of resolution the developmental conflicts postulated by Erikson, an existing personality test was revised and administered. Wessman and Ricks (1966) constructed a Q-sort intended to measure "developmental outcome" of college males in terms of their degree of success in passing through the first six of Erikson's "eight ages of man." No evidence of this instrument's

reliability or validity was given. Constantinople (1969) administered the items of Wessman and Ricks using a seven-point scale format to 952 undergraduates and found that the scale was partially successful in discriminating those who had and had not successfully resolved their developmental conflicts. She reports reliability for three of the measures from data collected in a pilot study. The test-retest correlations, with six weeks between administrations using 150 subjects, ranged from .45 for Role Confusion to .81 for Intimacy with a median r of .70. She does not directly provide validity data but an inference of validity can be made for the measure of Identity vs. Role Confusion. Cross-sectional scores of college students reflecting identity revealed the occurrence of significantly higher scores at progressively higher educational levels.

A perusal of the test items constructed by Wessman and Ricks indicated that the items were too abstract for administration to subjects of low educational status. Some items were rewritten for simplification and other items were added to reflect orientation towards stage seven. The higher scores on the scales reflect more positive developmental outcome. The scores were calculated by subtracting the score reflecting negative outcome from the score reflecting positive outcome for each subject. The items listed according to the stages they represent are in Appendix F while the items as administered to the subjects are in Appendix G.

Thematic Apperception Test

TAT ratings in the Melnick-Hurley study scored for pathogenesis, dependency frustration and total frustration were significantly higher for abusive than non-abusive mothers while nurturance needs scores were significantly lower for abusive mothers. Wright (1975) suggested a subtle form of personality evaluation is called for when studying psychopathology of abusive parents. Use of the TAT, therefore, appeared efficacious.

The first 13 TAT cards appropriate for adult females and card 18 GF were chosen for administration. Criteria for card selection were potential for eliciting responses indicating the nature of interpersonal relationships and internal emotional states, particularly regarding hostility and aggression. Criteria were developed on an a priori basis to rate the TAT stories for aggression, nurturance needs, nurturance frustration, independence frustration, dominance frustration, pathogenesis, and absence of affect.

Three Michigan State University upper-classmen who were majoring in psychology were trained to rate TAT stories on the aforementioned personality dimensions. They were trained on TAT protocols from sources other than those obtained in this study; sources included normal college students as well as institutionalized schizophrenics. Training continued until the average of the pairs of correlation coefficients corrected using the Spearman-Brown prophecy formula (Brown & Thompson, 1940) for each category was .80 or greater. The reliabilities were computed by comparing the ratings of each individual card response.

After criteria were reached, the students had an inter-term break. Upon their return, further evaluation of practice data showed a deterioration of reliability; two post-break training sessions were held. The rater reliabilities for practice sessions are in Appendix I. The actual experimental TAT stories were rated after approximately 39 hours of training per each rater. Rater reliabilities for the actual data were all above .90 (see Appendix J).

The stories were coded so that the raters would not know the nature of the subject who produced the TAT protocol and were randomly ordered to control for sequence effect. The raters rated the first story for all subjects for the first rating category; they then rated the second story, etc. until all stories had been rated for one category. Then the stories were again randomly arranged and the first story of each protocol rated for the second category, the second story for the second category, etc., until all stories had been rated for all categories. The raters performed the ratings at the same time and were separated from each other by a cardboard screen.

Each individual card response was given a rating of zero or one for each category. This method prevented story length from unduly influencing scores. A score of one was assigned when any character in a story showed the characteristics of a rating category; this method avoided forcing the raters to attempt to make the often difficult discrimination of main character versus peripheral character. The scores for each category made by each rater for each experimental subject were totaled and the resultant score was used in the data analysis.

Aspects of aggression scored were violent occurrences, violent figures, interpersonal hostility, hostile criticism, violent metaphor, punishment and denial of hostility. The subcategories of violent occurrences, denial of hostility, interpersonal hostility, and hostile criticism were adapted from the Hostility Scale developed by Gottschalk and Auerbach (1966). The subcategory of punishment was adapted from Melnick and Hurley's study. The concept of violent metaphor was the author's.

Violent occurrences scored were: volcanos, storms, lightning, earthquake, war, pestilence, falling down stairs, rape, poisoning, robbery, wrecks, riots, death, murder, suicide, physical injury, cuts, bruises, broken bones, missing body parts, heart attack, stroke, disease or any painful happening. The violent figures included witches, vampires, goblins, demons, ghosts, the devil, evil spirits, dragons, lions and tigers or any large carnivorous animal, lizards and snakes, or monsters. Violent metaphor included any mention of psychological "hurt," being broken-hearted, blinding light, scared or worked to death, shocked, and any curses.

The nurturance needs category was an expanded version of Melnick and Hurley's and was scored when a main character consoled, comforted, advised, loved, helped, held, protected, adopted or rescued another or expressed a desire to do so. Giving affection, sympathy, helpful instruction and explanation resulted in a score for this category as did growing plants and crops and reading to another.

It was originally intended to score for frustrated dependency and frustrated affiliation as had been done in the Melnick-Hurley study.

The raters complained of difficulty in discriminating whether a story should be scored as frustrated dependency, frustrated affiliation, or both. The two categories were combined, therefore, and the new category was given the name Frustrated Nurturance. The category of frustrated nurturance was scored if a character expressed a need for help, advice, instruction, affection, security, company, help, understanding, love, or medical help which was not given or in which the character had little likelihood of receiving. The category also was scored if a relationship with another person was disrupted; examples include spouse desertion, disagreement, ridicule, quarreling, death of a loved one, criticism, sorrow, fear, resentment, leaving the family, or an animal eating or attacking another. Also scored was no relationship with another when it appeared one was wanted, such as loneliness and having no friends.

The Melnick-Hurley study found total frustration (a sum of frustrated dependency, frustrated independence, frustrated affiliation, and frustrated dominance) to be a significant discriminating factor. Since frustrated dependency by itself was a significant discriminating factor, the significant difference of total scores may have been a reflection of a large component of frustrated dependency scores. The other scores occurred much less frequently than the frustrated dependency scores in the present study. As dependency frustration and affiliation frustration scores were already combined, only frustrated dominance and frustrated independence remained to be scored. Therefore each was rated and analyzed separately; definitions used are essentially those of Melnick and Hurley.

Independence frustration was scored when a character complied with the demands of another while expressing a wish to do the contrary or was forced to do something he didn't want to do. A score was also made when a character was placed in a situation where he was unable to escape, acted in opposition to his own wishes, was punished for independence, or was placed in a conflict where he didn't know whether to follow his own desires or those of another. Frustrated dominance was scored when attempts by a character to influence, control, persuade, or be heard were unsuccessful.

The category Pathogenesis was developed by Meyer and Karon (1967) and basically reflects the parents meeting their own needs at the expense of the child's. A score was made when a pathogenic interaction occurred between a parent figure and a child figure. A full list of themes which fit into the pathogenic framework, as specified by Meyer and Karon, can be seen in Appendix K.

The category Absence of Affect was designed to measure a subject's inability to express feeling or affect through even projective means. The underlying hypothesis was that abusive parents would show more defensiveness regarding expressions of feeling. Their difficulty in expressing emotion and vulnerability verbally had been observed by the author. The category was defined as absence of mention of a character's internal feeling state, and absence of action clues as to how the character might be feeling. A story scored for absence of affect was typically a static description of the environment, object naming, or character inaction.

Subjects

Forty mothers participated in the study. All were receiving Aid to Dependent Children (ADC), were voluntary participants, and were residents of Ingham County, Michigan.

The experimental group was composed of 20 mothers who were clients of the Protective Services Unit of Ingham County Department of Social Services. Protective Services becomes involved in a child abuse case when a citizen directly phones a complaint of child abuse to the agency or when a case is referred by another social agency, medical facility, or law enforcement organization. The abusive women represented are those who can best be described as moderate abusers. Severe child abusers, who may be endangering a child's life, are typically petitioned immediately into probate or criminal court. Consequently, they move out of the jurisdiction of Protective Services so were not available to participate in the study. The case of the mild abuser is not usually opened if it is determined further incidents are unlikely. The moderate child abuser is the one who is seen as having a serious enough problem to be monitored and given services but not serious enough to warrant court action. It was confirmed from case records that each mother termed abusive had abused at least one of her children within six months prior to testing.

The control group included 20 mothers who were clients of the Basic Family Services Unit of Ingham County Social Services and were randomly selected from the then current active case load. The mission of Basic

Family Services is to render to those on public assistance such informational and supportive services as money management, home management, health care planning, housing referral, transportation, personal-problem counseling, and educational and training referral. Control mothers were verified as non-abusers by their case worker.

Appropriate potential participants in this study were very limited due to the experimental demands that a potential abusive subject be an ADC mother and because of Protective Services' ethical requirements that a parent be a volunteer, be within Protective Services jurisdiction and not be approached for testing at a time of acute crisis. Since this same group was also the target of a psychotherapy program headed by the experimenter--and was one of the few such counseling programs in the geographical area--finding sufficient participants who met the experimental criteria, Protective Services' limitations, and who were unknown to the experimenter was extremely difficult. A decision was made to include abusive mothers who were clients of the experimenter. Ten of the abusive mothers were individual or group psychotherapy clients of the experimenter for periods of between two weeks to six months. The other 10 abusive mothers were unknown to the experimenter previous to the testing situation. Statistical analyses were made to ascertain whether there were any differences between the client and non-client abuse groups on the experimental measures.

Since volunteers were anticipated to show reluctance to participate in the study, to have children who required supervision in the mother's absence, and to be without suitable transportation,

a number of facilitative procedures were utilized. Each mother was paid \$7.50 to participate in the study, free transportation was made available, and a licensed baby sitter was provided free of charge. The experimenter transported those without their own transportation.

All mothers were told that the purpose of the experiment was to study family attitudes of ADC mothers. Control persons with telephones were contacted by either their caseworker or by the experimenter. Abusive non-clients with telephones were contacted by a Protective Services aide who was not known by the subjects to be affiliated with Protective Services and who introduced himself as from Ingham County Social Services. Abusive participants and some controls without telephones were contacted by letter while some control mothers without telephones were contacted in person by their case worker. Abusive clients of the experimenter were contacted by him. No one was told that the testing was related to child abuse.

As the mothers were all volunteers, their response was expected to be cooperative and the expectation was generally confirmed. The control mothers were particularly cooperative. Only four potential control mothers contacted by the experimenter from a list provided by Basic Family Services declined to participate. Most who agreed to participate eventually did despite occasional needs to reschedule testing sessions due to failure of the potential subject to be present as prearranged. Some of the abusive non-clients were especially difficult to schedule, appeared hesitant to participate, and needed frequent rescheduling. Others in the abusive non-client group, however, were

cooperative and punctual. Abusive clients were, with one exception, cooperative and scheduling presented few problems. The exception was a client who was initially very resistive to psychotherapy or other aid from any source.

Unless the person declined, all testing was done in an empty classroom in Lincoln School, Lansing. The classroom was furnished with a table, four chairs, and a large desk. Those arriving with their own transportation checked in with a receptionist. Three abusive mothers and two control mothers requested the testing be done in their own homes. Typically, the reason for a request of home testing was due to having several small children at home and not wanting to transport them or to leave them in the care of another person. Few mothers made use of child care made available by the experimenter.

On entering the testing room, participants were again told that the nature of the study was to investigate family attitudes of mothers receiving ADC. She was told to answer the questions completely, not as she would like things to be, but as they really were. She was assured that the results would be held in professional confidence and was then provided with a statement describing the nature of the study and written assurance of confidentiality. She was asked to read the statement aloud and then to sign it. (The form is Appendix L.) The statement served as a legal release and also as a reading screening device. On the basis of inability to read the statement, one abusive mother was administered the questions verbally. All subjects but one completed the entire task.

The exceptional mother, an abusive subject, refused to be administered the TAT; she reported she had been given the TAT as an adolescent in a mental hospital and wanted to do nothing which reminded her of that experience.

The directions for the paper-and-pencil tests were explained; the person was told to feel free to ask questions and to announce the completion of the written portion. When she had finished, the TAT was administered. It was introduced by saying, "This is an exercise in imagination. I want you to use your imagination to make up a little story about each card. Tell me what is going on in the story, such things as what the people are doing, thinking, and feeling. Also tell me what led up to the picture and what will happen in the future."

When the mother completed her response to the last TAT card, the experimenter expressed appreciation for her participation, gave her a check, and if transported by the experimenter, gave her a ride home. The testing session generally lasted an hour with a few subjects performing the task in as little as 40 minutes and one subject taking 2½ hours. No mother gave indication after testing of awareness that the intent of the project was to study abusive mothers.

CHAPTER III

RESULTS: MANCOVA

Introduction

Multivariate analysis of covariance (MANCOVA) was used to ascertain significant differences between the abusive group and the non-abusive group on the dependent measures (as well as between abusive client and abusive non-client groups). MANCOVA is a method of analysis developed by Finn (1974) and modified for use on the CDC 6500 computer by Scheifly and Schmidt (1973). It was chosen as a method of analysis because it enabled investigation of significant differences between the groups while controlling for the effect of attributes (covariates) of the two groups which may have covaried with the factor levels.

Independent Variables

The factor of abusive versus non-abusive mother was the main difference of interest. There were two sub-groups within the group of abusive mothers, those who were psychotherapy clients of the experimenter and those who were not; the subgroups were treated as additional factor levels for the analysis, enabling comparison of the abusive-client mothers and the abusive, non-client mothers. In actuality, then, there were three factor levels in the multivariate analysis. Non-abusive mothers were compared to abusive mothers and then abusive,

client mothers were compared to abusive, non-client mothers. The latter comparison is reported at the end of the chapter.

Dependent Variables

There were in all 20 dependent measures. The six objective test scores were: Family Concept Inventory, Resentment and Aggression, Depression and Apathy, Sense of Personal Worth, attitude towards punishment (Punish), and attitude towards reward (Reward). The seven Eriksonian measures were: Trust versus Basic Mistrust, Autonomy versus Shame and Doubt, Initiative versus Guilt, Industry versus Inferiority, Identity versus Role Confusion, Intimacy versus Isolation, and Generativity versus Stagnation. There were seven TAT measures: Aggression (TAT Agg), Nurturance, Frustrated Nurturance, Absence of Affect, Pathogenesis, Frustrated Dominance, and Frustrated Independence. Because the number of dependent variables plus the number of covariates exceeded the number of subjects in each of the two main groups and because the dependent measures represented three identifiable groups, a separate MANCOVA was calculated for each group. The subjects' scores and the group means are given in Appendix DD.

Covariates

Abusive and non-abusive participants were matched by virtue of the fact that both groups were composed of mothers who were receiving Aid to Dependent Children and were, therefore, of the same socioeconomic class. Review of the literature suggests that abusive and non-abusive

parents may differ on the dimensions of age, number of children, average age of children, educational level, race, and marital status. Matching on these additional dimensions was not practicable given the scarcity of suitable abusive mothers. The effects of age of mother, number of children, average age of children, and education were assessed through regression analysis and removed by including them as covariates in the MANCOVA. Means of the covariates are contained in Table 1.

Table 1
Covariate Means

| | Age | Education (in years) | Number of children | Average age of children |
|-------------|------|-------------------------|-----------------------|----------------------------|
| Abusive | 28.6 | 11.8 | 3.1 | 6.1 |
| Non-abusive | 29.8 | 11.0 | 3.2 | 7.6 |

The covariates, taken as a group, were not significantly associated with scores on the objective tests ($F = .9$; $p < .6$), nor was any individual covariate associated overall with the objective test scores. In only one of the eight possible cases was there a significant association between an individual covariate and a dependent variable: education and Family Concept Inventory ($F = 8.1$; $p < .007$). Only one additional association was marginally significant: child's average age and Punitiveness ($F = 3.6$; $p < .07$). Statistics for the regression analysis with four covariates for the objective test variables are reported in Appendix M.

There was an overall association between the Eriksonian measures taken as a group and the covariates taken as a group ($F = 1.7$; $p < .03$). The overall association appears to be a result of the association between Trust versus Basic Mistrust and the covariates Number of Children ($F = 4.4$; $p < .04$) and Average Age of Children ($F = 4.1$; $p < .05$) and the association between Autonomy versus Shame and Doubt and Number of Children ($F = 8.9$; $p < .01$). Appendix N contains the results of the MANCOVA regression analysis of the Eriksonian measures and the covariates.

The F -value for the test of association between the TAT measures taken as a group and the covariates taken as a group was not significant ($F = 1.2$; $p < .25$). The covariate Education showed an overall significant association with the TAT measures ($F = 3.1$; $p < .02$) which appears to be the result of one highly significant association: Education and Frustrated Independence ($F = 15.7$; $p < .0004$). Appendix O contains the statistical result of the regression analysis with the four covariates on the TAT measures.

Marital Status

The possible effect of marital status of the subjects on the outcome measures could not be assessed by including the measure in the MANCOVA because covariates must be represented in MANCOVA by interval or ratio numbers. Marital status was represented by a nominal number. To determine whether or not there was an overall relationship between abusive status and marital status, a chi-square

analysis was performed. Results indicated no association (see Appendix P).

To measure relationship between marital status and any dependent measure, marital status was treated as a "dummy" independent variable in a separate analysis of variance (ANOVA). In no case could the null hypothesis of no association between marital status and any objective test variable be rejected at less than the .05 level of significance. No trends were evident (see Appendix Q).

No highly significant associations were apparent from the ANOVA for the Eriksonian measures. A trend of significance between marital status and Trust versus Basic Mistrust was noted ($F = 2.6$; $p < .07$). Refer to Appendix R for Eriksonian measures ANOVA. As the effect of marital status was not removed by MANCOVA, a separate two-factor ANOVA was calculated using marital status and abuse status as independent variables and score on Trust versus Basic Mistrust as the dependent variable. The main effects source of variation was highly significant ($F = 4.3$; $df = 4$; $p < .007$) as was the effect of abuse status ($F = 8.1$; $df = 1$; $p < .008$) and of marital status ($F = 3.2$; $df = 3$; $p < .04$). There was no interaction effect. Figure 1 is a graph of the means for the groups on the measure of Trust versus Basic Mistrust.

ANOVA with marital status as the independent variable and TAT measures as the dependent variable revealed no case where the null hypothesis of no difference between the means could be rejected at less than the .05 level (see Appendix S).

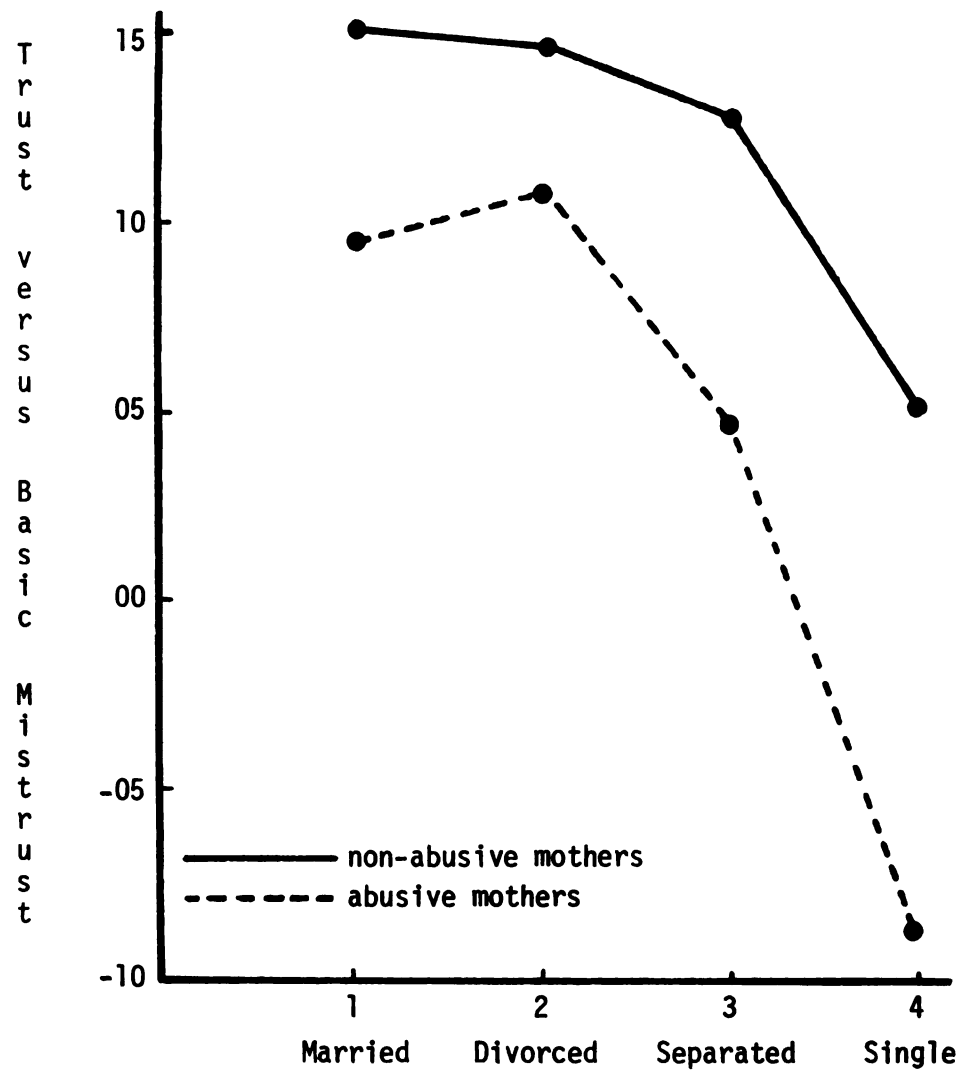


Figure 1. Mean scores on Trust versus Basic Mistrust plotted against marital status.

Race

As was the case for the marital-status variable, numbers representing race could not be included as a covariate in a MANCOVA. To assess whether the variable of race was related to any of the dependent measures, race also was treated as a "dummy" independent variable in a separate ANOVA. Only data from the control group was analyzed. There was only one Black in the group of abusive mothers which rendered the influence of race in the abusive group negligible.

No differences significant at the less than .05 level between the Black women and the White women in the control group on the objective tests were evident. The association between race and punitive disciplinary values suggests a trend ($F = 3.8$; $p < .07$, Black control $\bar{X} = 39$; White control $\bar{X} = 30$) (see Appendix T).

Comparison of the two races on the Eriksonian dependent measures revealed no cases where the null hypothesis of no association could be rejected at less than the .05 level (see Appendix U). Comparison on the TAT variables revealed that the null hypothesis of no difference between the means of the dependent variables could not be rejected at the less than .05 level for any variable except Frustrated Independence ($F = 5.4$; $p < .03$). The difference of the means on the variable of Nurturance was marginally significant ($F = 3.9$; $p < .06$). Appendix V contains the ANOVA results using race as the independent variable and the TAT measures as the dependent variables.

Because the ANOVA using race as the independent variable and the TAT measures as the dependent variables revealed a significant

difference between the races on the measure of frustrated independence, the significant difference on the abusive/non-abusive MANCOVA must be more closely inspected. The means of the Blacks and the Whites in the control group on the frustrated independence variable were 2.0 and 5.5, respectively. By comparison, the mean of the abuse group was 2.79 and the mean of the non-abusive group was 4.10. The difference between the abusive and non-abusive groups, therefore, would likely have been even greater if the control group were composed entirely of White mothers as the mean of Black mothers was below that of the abusive group.

Analyses of Dependent Measures

Factor Levels: Abusive and Non-Abusive

The F -ratio for the multivariate test of equality of mean vectors of the abusive and non-abusive groups on the objective tests indicated highly significant differences ($F = 4.6$; $df = 6, 28$; $p < .003$). On the four objective test measures the null hypotheses of no association between abusive and non-abusive groups with 1 and 33 degrees of freedom were rejected at high levels of significance. Family Concept Inventory ($AM \bar{X} = 102.6$; $NAM \bar{X} = 128.6$; $F = 14.7$; $p < .0006$), Resentment and Aggression ($AM \bar{X} = 10.8$; $NAM \bar{X} = 7.0$; $F = 13.8$; $p < .0008$), Depression and Apathy ($AM \bar{X} = 14.8$; $NAM \bar{X} = 9.4$; $F = 9.0$; $p < .005$), and Sense of Personal Worth ($AM \bar{X} = 7.0$; $NAM \bar{X} = 10.7$; $F = 22.6$; $p < .0001$). The null hypothesis could not be rejected at the .05 level for the measure of Punishment ($AM \bar{X} = 32.2$; $NAM \bar{X} = 33.6$; $F = 1.0$; $p < .33$) or for the measure of Reward ($AM \bar{X} = 37.1$; $NAM \bar{X} = 39.0$; $F = 0.0$; $p < .99$).

On the Eriksonian measures the F -ratio for the multivariate test of equality of mean vectors indicated a highly significant difference between the means of the abusive and non-abusive groups ($F = 3.9$; $df = 6, 28$; $p < .005$). The null hypotheses of no association between the means of the abusive and non-abusive groups on the first six Eriksonian stages with 1 and 33 degrees of freedom were rejected at highly significant levels: Trust versus Basic Mistrust ($AM \bar{X} = 5.7$; $NAM \bar{X} = 13.0$; $F = 12.2$; $p < .001$), Autonomy versus Shame and Doubt ($AM \bar{X} = 8.1$; $NAM \bar{X} = 10.9$; $F = 5.1$; $p < .03$), Initiative versus Guilt ($AM \bar{X} = 4.7$; $NAM \bar{X} = 12.0$; $F = 13.9$; $p < .0008$), Industry versus Inferiority ($AM \bar{X} = 6.5$; $NAM \bar{X} = 14.8$; $F = 11.1$; $p < .002$), Identity versus Role Confusion ($AM \bar{X} = -2.6$; $NAM \bar{X} = 5.1$; $F = 6.6$; $p < .01$), and Intimacy versus Isolation ($AM \bar{X} = 6.2$; $NAM \bar{X} = 15.0$; $F = 13.0$; $p < .001$). The difference between the means for Generativity versus Stagnation was marginally significant ($AM \bar{X} = 11.0$; $NAM \bar{X} = 14.5$; $F = 3.2$; $p < .08$).

The F -ratio for the multivariate test of equality of mean vectors of the TAT measures for the abusive and non-abusive groups was significant ($F = 2.7$; $df = 7, 26$; $p < .03$). The means of two individual variables were sufficiently different to allow rejection of the null hypothesis: Aggression ($AM \bar{X} = 15.9$; $NAM \bar{X} = 11.3$; $F = 5.8$; $p < .02$) and Frustrated Independence ($AM \bar{X} = 2.8$; $NAM \bar{X} = 4.1$; $F = 6.3$; $p < .02$). The difference between the means on the measure of pathogenesis was marginally significant ($AM \bar{X} = .828$; $NAM \bar{X} = .728$; $F = 3.31$; $p < .08$). See Table 2 for complete results of MANCOVA of the TAT measures.

Table 2
Thematic Apperception Test MANCOVA
(Factor Levels: Abusive and Non-Abusive)

| Variables | Non-abuse mean | Abuse mean | F | p less than |
|-------------------------|-------------------|---------------|------|----------------|
| Aggression | 11.30 | 15.88 | 5.81 | .02 |
| Pathogenesis | .728 | .828 | 3.31 | .08 |
| Nurturance | 10.65 | 10.41 | .26 | .61 |
| Absence of Affect | 11.40 | 11.29 | .00 | .97 |
| Frustrated Nurturance | 9.85 | 11.51 | 1.48 | .23 |
| Frustrated Dominance | 3.65 | 3.06 | .34 | .56 |
| Frustrated Independence | 4.10 | 2.79 | 6.34 | .02 |
| df = 1, 32 | | | | |

Factor Levels: Abusive Client and
Abusive Non-Client

Comparison of abusive clients and abusive non-clients on the objective-test measures revealed no case where the null hypothesis of no association was rejected at less than the .05 level of significance. No trends were evident (see Appendix W).

The F -ratio for the multivariate test of equality of mean vectors of the abusive client and abusive non-client groups on the Eriksonian scales was non-significant ($F = 1.2$; $df = 6, 28$; $p < .35$). The only variable on which the null hypothesis could be rejected was Industry versus Inferiority (abusive non-client $\bar{X} = 2.7$; abusive client $\bar{X} = 10.2$; $F = 4.1$; $df = 1, 33$; $p < .05$). See Appendix X for means and MANCOVA results.

When the abusive client versus abusive non-client MANCOVA on the TAT variables was calculated, the F -ratio for the multivariate test of equality of mean vectors was non-significant ($F = 1.05$; $df = 7, 26$; $p < .42$). There were no individual cases where the null hypothesis could be rejected at the .05 level. Marginal significance was evident for the variable Frustrated Nurturance (abusive client $\bar{X} = 13.8$; abusive non-client $\bar{X} = 9.2$; $F = 3.4$; $df = 1, 36$; $p < .07$). See Appendix Y for the entire set of results.

CHAPTER IV

OTHER ANALYSES

Discriminant Analysis

One potential use for the results of the present study is development of a prediction scheme. Discriminant analyses (Nie, Hall, Jenkins, Steinbrenner, and Bent, 1975) is a method for identifying those variables which maximally discriminate between groups, estimating the relative importance of the variables in the analysis, and forming a linear combination of the variables for maximum separation. The linear combination can be calculated from two sets of discriminate coefficients, one for scores in the standardized form and one for scores in raw form. When sign is ignored, each standardized discriminant coefficient represents the relative contribution of its associated value to the discriminant function. The raw data discriminant functions reflect the weights which would be assigned to raw scores in the discriminant formula for prediction. For classification, the discriminant analysis provides the percentage of successful classification when a given group of variables is used.

A step-wise discriminate analysis was run using the WILKS method. The procedure selects the order of the variables in the step-wise solution according to the largest overall multivariate F of the

variables remaining. Every variable with an F -value of greater than one was included in the analysis; in other words, all variables for which hypothesis mean square was greater than error mean square were used in the analysis. Those for which F was less than one were not included.

Discriminant analyses for various combinations of variables were performed. The race and marital status variables were not included as nominal numbers are not appropriate for inclusion in a discriminate analysis. Table 3 contains the percentage of correct prediction for several combinations of variables as included in discriminant analyses.

By inspecting the standardized discriminant functions for all 24 variables (Table 4) the relative importance of the variables in creating a prediction scheme can be ascertained when sign is ignored. It must be kept in mind that after a factor is chosen, the next chosen is the factor which best separates the groups based on its combination with the first factor. The list, therefore, is based on importance of measuring a unique aspect of the discrimination and will not coincide with the F -values resultant in MANCOVA. Appendix Z contains the unstandardized discriminant functions and the centroids from the discriminant analysis using all variables. The missing TAT data for one abusive mother was compensated for by representing the missing data with the mean TAT scores of the abusive group.

Table 3
Discriminant Analysis Classifications

| Variables included | Actual group | Predicted group membership | | Percentage of known cases correctly classified |
|---|-----------------------------|----------------------------|-----------------------|--|
| | | Group I no. (%) | Group II no. (%) | |
| All variables | Non-abuse (I) Abuse (II) | 19 (47.5) 0 (0.0) | 1 (2.5) 20 (50.0) | 97.5 |
| Objective tests Eriksonian scales TAT Aggression Covariates | Non-abuse (I) Abuse (II) | 19 (47.5) 1 (2.5) | 1 (2.5) 19 (47.5) | 95.0 |
| TAT variables Eriksonian scales Covariates | Non-abuse (I) Abuse (II) | 19 (47.5) 1 (2.5) | 1 (2.5) 19 (47.5) | 95.0 |
| Objective tests (minus punish and reward) Eriksonian scales Covariates | Non-abuse (I) Abuse (II) | 19 (47.5) 1 (2.5) | 1 (2.5) 19 (47.5) | 95.0 |
| Objective tests TAT measures Covariates | Non-abuse (I) Abuse (II) | 19 (47.5) 2 (5.0) | 1 (2.5) 18 (45.0) | 92.5 |
| Objective tests Eriksonian scales Covariates | Non-abuse (I) Abuse (II) | 18 (45.0) 2 (5.0) | 2 (5.0) 18 (45.0) | 90.0 |
| All variables but covariates | Non-abuse (I) Abuse (II) | 18 (45.0) 2 (5.0) | 2 (5.0) 18 (45.0) | 90.0 |
| Objective tests Eriksonian scales | Non-abuse (I) Abuse (II) | 18 (45.0) 2 (5.0) | 2 (5.0) 18 (45.0) | 90.0 |
| TAT measures Eriksonian scales | Non-abuse (I) Abuse (II) | 16 (40.0) 3 (7.5) | 4 (10.0) 17 (42.5) | 82.5 |
| Objective tests TAT measures | Non-abuse (I) Abuse (II) | 17 (42.5) 3 (7.5) | 3 (7.5) 17 (42.5) | 85.0 |
| Objective tests | Non-abuse (I) Abuse (II) | 17 (42.5) 3 (7.5) | 3 (7.5) 17 (42.5) | 85.0 |
| Eriksonian scales | Non-abuse (I) Abuse (II) | 17 (42.5) 3 (7.5) | 3 (7.5) 17 (42.5) | 85.0 |
| TAT measures | Non-abuse (I) Abuse (II) | 17 (42.5) 4 (10.0) | 3 (7.5) 16 (40.0) | 82.5 |

Table 4
Standardized Discriminant Function Coefficients

| Variable | Coefficient |
|-------------------------------------|-------------|
| 1. Frustrated Independence | 3.57 |
| 2. TAT Aggression | -2.72 |
| 3. Pathogenesis | 2.09 |
| 4. Frustrated Dominance | -2.06 |
| 5. Average Age of Children | 1.99 |
| 6. Trust versus Basic Mistrust | 1.97 |
| 7. Depression and Apathy | 1.56 |
| 8. Intimacy versus Isolation | 1.43 |
| 9. Identity versus Role Confusion | -1.24 |
| 10. Number of Children | -1.14 |
| 11. Generativity versus Stagnation | -.97 |
| 12. Education of Mother | -.96 |
| 13. Absence of Affect | -.85 |
| 14. Sense of Personal Worth | .80 |
| 15. Autonomy versus Shame and Doubt | .71 |
| 16. Age of Mother | -.59 |
| 17. Resentment and Aggression | -.54 |
| 18. Family Concept Inventory | .49 |
| 19. Nurturance | -.32 |
| 20. Initiative versus Guilt | .28 |
| 21. Reward | -.24 |
| 22. Industry versus Inferiority | -.23 |
| 23. Punish | -.19 |
| 24. Nurturance ^a | -- |

^aThe variable did not meet statistical criteria for inclusion.

Intercorrelations Among Measures

The abuse and non-abuse groups are clearly different as measured by many of the dependent variables. Investigation of the extent that these many variables are reflective of more unitary underlying personality factors is warranted. Factor analysis was rejected as a method of approaching the task because the number of subjects was insufficient to produce a meaningful analytic outcome. McQuitty (1957) suggests typal analysis as a method for refining and organizing the data in a correlational matrix and it permits two-dimensional charting of the relationships among significantly correlated measures. The correlational matrix and typal analysis of test scores for all participants in the study highlights the basic dimensions on which the group as a whole differed. The correlational matrices and typal analyses of the two separate groups enables analysis of the organization of the personality dimensions within each group. The correlational matrix inclusive of both groups is Appendix AA; the abusive group matrix, Appendix BB; and the non-abusive group matrix, Appendix CC. The typal analyses for the groups are Figures 2, 3, and 4, respectively.

A type is defined as a group of measures which correlate more highly with at least one other member of the type than they correlate with any non-member of the type. Typal structures in the figures are represented by heavier bonds supplemented by all additional correlations (lighter bonds) which reached the .01 level. The nucleus of each type is indicated by double heavy bonds; negative correlations are shown by

dashed bonds. To fully represent typical structure, more than two dimensions may be required. Consequently, positioning of the types on the page was based on the author's judgment. That a large correlational matrix produces "significant" correlations by chance is recognized; to reduce the hazard of interpreting chance correlations, only those significant at the .01 level or beyond were interpreted. For the pooled sample in Figure 2, the majority of measures fall into a large bipolar cluster embracing two types, although a total of five distinct types of measures are indicated by the double-bonded nuclear pairs. The primary positive pole of the cluster is denoted by Trust while the Apathy (and Depression) and Resentment (and Aggression) measures mark its primary negative pole. The positive pole includes several Eriksonian measures (Industry, Identity, etc.) and is strongly tied to a secondary positive pole anchored by the measures Initiative and Personal Worth. Both members of the secondary positive pole correlate negatively with both representatives (Apathy and Resentment) of the primary negative pole. A secondary negative pole is suggested by the correlation (.40) of Resentment with Frustrated Nurturance. The case for this secondary negative pole is strengthened by three additional positive correlations, which reached the .05 level: Apathy with Frustrated Nurturance (.32) and Frustrated Dominance (.34); and Resentment with TAT Aggression (.31). Interestingly, all members of this secondary negative pole were derived from the TAT except for its two most

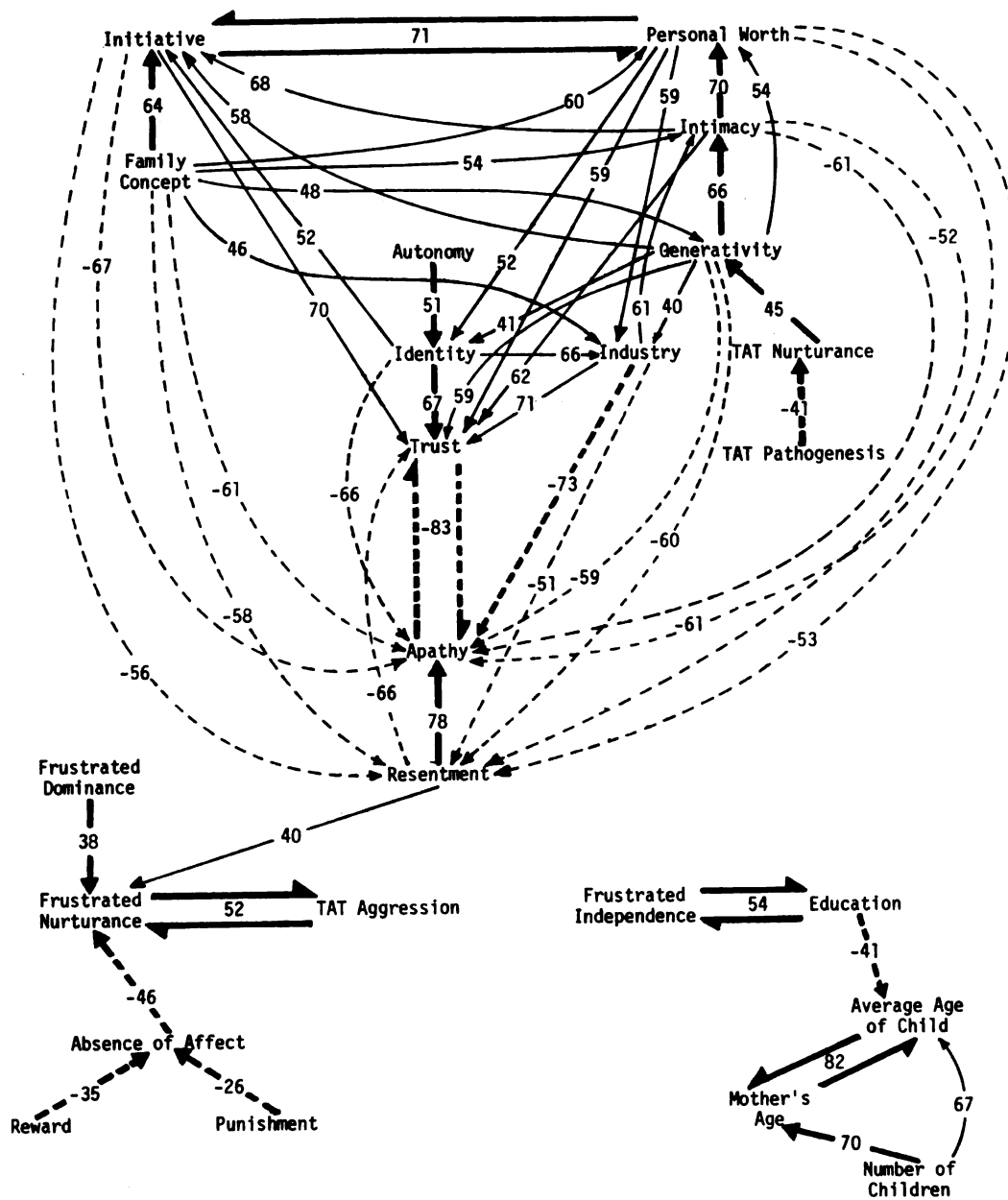


Figure 2. Total group ($N = 40$; $r_{.01} \leq .40$).

peripheral members (Reward and Punishment). The four covariates were very distantly related to the central cluster, aside from Education, which correlated appreciably (.54) with Frustrated Independence. Thus, a large bipolar cluster largely undergirds the individual measures for these pooled data. Its positive poles are denoted by Trust, Identity, Personal Worth, and Initiative while its negative poles are defined by Apathy, Resentment, Frustrated Nurturance and TAT Aggression. The presence of appreciable "method" variance is suggested by the generally strong bonds among the TAT-based measures, in contrast with their weaker bonds to the inventory-based measures.

Figure 3 depicts the supplemented (by all correlations reaching the .01 level) typal analysis for abusive mothers. It is generally similar to that for the pooled groups in showing a large primary cluster anchored by Trust (the positive pole) and Apathy and Resentment (the negative pole), a secondary cluster of TAT-based measures (except for peripheral members Education, Punishment, and Autonomy), and an unrelated typal structure containing three of the four covariates. Finer analysis--based upon correlations which were significant at the .05 level--revealed a perplexing incongruity, as TAT Aggression correlated positively with Family Concept (.44), Initiative (.49), and Intimacy (.46). Thus, for these abusive mothers, a TAT psychopathology indicator bonds positively with Initiative--a staunch component of the principal cluster's positive pole.

Figure 3. Abusive mothers ($N = 20$; $r_{.01} \leq .55$).

Similarly, the same general picture holds for the non-abusive mothers (Figure 4) although the TAT measures are now more fragmented than was true for the abusive mothers. TAT Aggression is now peripherally attached to the principal cluster and two other TAT measures (Absence of Affect and Nurturance) constitute a separate doublet. Finer analysis of the correlations which were significant at the .05 level suggested that the TAT-based measures again represent a secondary negative pole of the principal cluster. Thus, Frustrated Dominance correlated negatively with both Initiative (-.47) and Industry (-.48), but positively (.43) with Apathy.

For most variables there were at most one or two instances where differences between the corresponding correlations in the abusive versus non-abusive groups reached the .05 level. The TAT aggression variable, which yielded four such differences, was a notable exception to this pattern. Further investigation revealed that for the non-abusive mothers, TAT aggression was more highly correlated with the variable reflecting the average age of the mother's children (AM $r = -.23$; NAM $r = .43$); for the abusive mothers TAT aggression was significantly more highly correlated with independence frustration (AM $r = .55$; NAM $r = .00$), dominance frustration (AM $r = .59$; NAM $r = -.15$), and generativity (AM $r = .40$; NAM $r = -.28$). For both groups TAT aggression was associated with nurturance frustration (AM $r = .59$; NAM $r = .37$). The implications of the differences are discussed in the following chapter.

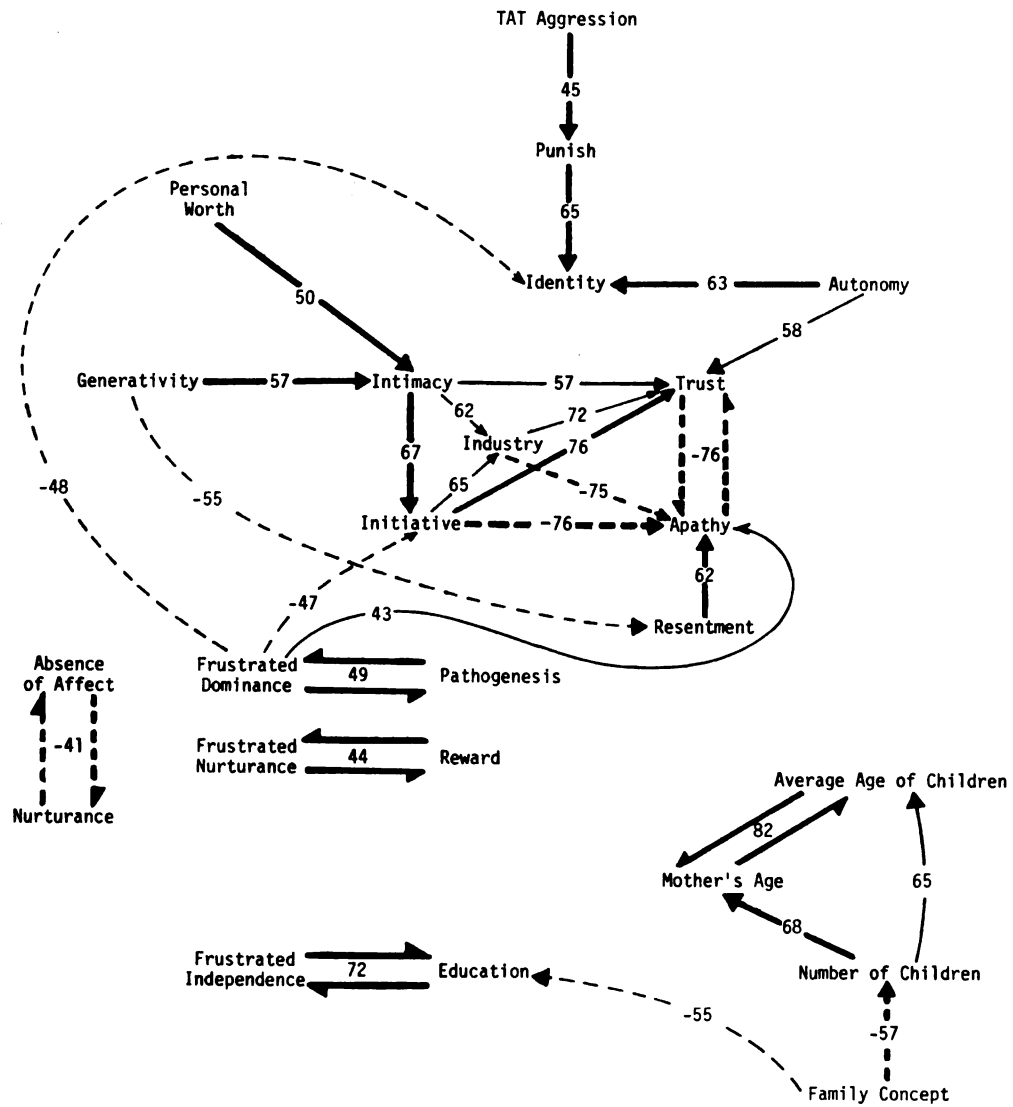


Figure 4. Non-abusive mothers ($N = 40$; $r_{.01} \leq .55$).

On the measures of autonomy and initiative there were three significant differences each at the .05 level between correlations within the abusive and non-abusive groups. The two variables were not central dimensions on which the groups differed, the number of significant differences between correlations was not particularly high and the patterns of significant differences did not lend themselves to logical explanation. It was decided, therefore, to forego further scrutiny of these two measures.

CHAPTER V

DISCUSSION

Ethical Issues

Before discussing the results of the study, the ethical issue which arose in the course of collecting the data will be addressed. Child abuse is a reprehensible and illegal act. Abusive parents are reluctant to discuss child abuse or to associate with anyone who potentially can initiate investigation of their treatment of their children. Telling abusive mothers the nature of the study would predictably cause many to decline participation and would almost certainly arouse defensiveness in those abusive subjects who did participate. To investigate the phenomenon of child abuse it is necessary to face the dilemma of whether the issue of full disclosure to participants of the exact nature of research should take precedence over studying a very serious social problem, a problem which cannot be reduced without considerably additional research. Needed research would not likely be done if the full intent of the study was revealed. The decision to not tell the participants the exact nature of the investigation was not taken lightly. It is the experimenter's position that telling the subjects that the intent of the study was the investigation of family attitudes on the part of ADC mothers was sufficient since strict anonymity of the

participants was maintained. All data collected was secured under lock and key and files were coded so that names would not appear on test data.

Test Results

Introduction

The hypothesis that abusive mothers differ from non-abusive mothers on a variety of personality dimensions is strongly supported by the results. Many variables differentiated the two groups and considerable effort must be made to organize the results meaningfully. Issues arise as to the nature of the underlying factors represented by the variables, the efficacy of a prediction scheme, the relevance of the covariates, the applicability to other groups of abusive persons, and the direction and form of future research.

Objective Measures

The significantly lower FCI scores of the abusive mothers supports the impression that an abusive family is anxious, is less affectionate, has more conflict and is more non-supportive. Members appear less trusting, close, and intimate. Item analysis of several questions show typical differences: "We are a disorganized family" was marked agree or strongly agree by 36% of the abusive mothers versus only 15% of the non-abusive mothers. "We just cannot tell each other our real feelings" was marked agree or strongly agree by 47% of the abusive mothers, 25% of the non-abusive mothers.

Abusive mothers show a strong tendency to be apathetic and depressed as well as hostile and resentful; the observation by Wasserman (1967) that abusive parents are often depressed on one hand, but also selectively brutal on the other, is supported. Hostility-resentment is clearly a major dimension on which the abusive mother is different. She appears to be resentful towards her family, her environment, and turns the resentment even against herself. She endorsed such statements as, "At times I feel like smashing things," more frequently than her non-abusive counterpart (abusive, 75%; non-abusive, 35%). One non-abusive mother who endorsed the previous statement pencilled in "but I don't," indicating the experience of anger but the ability to not act on it.

The depression and apathy component was highly correlated with hostility and aggression and inversely correlated with sense of personal worth. This apparently represents an aspect of the abusive mother feeling unable to pursue meaningful and worthwhile activities, activities which might serve to reduce her high hostility and low self-esteem. Of the abusive mothers, 40% marked true the statement "I brood a great deal," while 25% of the non-abuse group did so. The statement, "I have difficulty in starting to do things" was endorsed by 35% of the abuse group versus 20% of the non-abuse group.

A lower sense of personal worth also characterized the abusive mothers. They saw themselves as less important, worthwhile, popular, useful, and cared for than did non-abusive mothers. The statement, "At times I think I am no good at all," was endorsed by 80% of the abusive mothers versus 30% of the non-abusive mothers.

Eriksonian Measures

The highly significant and consistent relative developmental "failures" by the abusive group suggest a pervasive and consistent maladjustment, presumably beginning soon after birth and proceeding throughout subsequent development. The abusive mothers' lower Eriksonian scores for these intercorrelated measures at all developmental stages suggests that this instrument is not yet well-tuned to differentiate among discrete developmental stages. The presence of several Eriksonian measures very near the top of the list of standardized discriminant function coefficients and at the center of the typal analysis suggests that, though intercorrelated, each set of developmentally targeted questions measures at least some unique aspects. Trust versus Mistrust figures very prominently in both the list of discriminant coefficients and the typal analysis. Its prominence reflects consistency with other reports in the literature as well as a basic logic and suggests that the variable is to some extent a valid measure of the first "Age of Man." It appears to represent a basic dimension which differentiates abusive from non-abusive mothers.

The measure of identity was also central in the typal analysis and the second Eriksonian variable on the discriminant standardized coefficient list. It would be expected that any measure of role confusion would be correlated with low self-esteem; scores of identity and self-esteem correlated .52. It appears, therefore, that the identity variable has validity and that the two factors of basic mistrust and role confusion are associated with the child-abusing personality.

On the basis of the present results, conclusions about each of Erikson's other "Ages of Man" as they relate to child abuse must be tentative. Were the measures less correlated with each other and the consistent "failures" still evident, it would more confidently be inferred that abusive mothers have experienced developmental trauma at all stages. That conclusion cannot be ruled out, but neither can the conclusion that the Eriksonian measures reflect a more unitary entity. Because the Trust versus Basic Mistrust and Identity versus Role Confusion variables stand out, and because the measures as a whole so substantially differentiate the non-abusive and abusive mothers, the measures have proven useful. If further refined, they may have even greater potential to isolate the particular developmental stages where particular susceptibility exists for development of an abusive mode of interaction with children.

TAT Measures

The TAT measures of aggression and frustrated independence have strong discriminatory power and appear to be relatively unique measures. The two measures had the largest standardized discriminant function coefficients (Frustrated Independence, -3.92; TAT Agg, 2.88) of any of the entire group of measures. Abusive mothers were significantly higher on the measure of hostility ($p < .02$) and significantly lower on the measure of frustrated independence ($p < .02$). The marginally significant elevation of abusive mothers' scores on the measure of pathogenesis supports the hypothesis that the abusive mother is more likely to meet her own needs at the expense of her child's.

The TAT stories of the abusive mothers more frequently mentioned violence and death; 60% of abusive mothers related stories of death and murder to card number 13 versus only 35% of non-abusive mothers. There were qualitative differences in the stories as well. A "typical" response when death was mentioned by a non-abusive mother involved a woman being discovered dead by a man who is heart-broken while the "typical" story for an abusive mother involved the man attacking the woman and killing her.

The TAT aggression variable appeared related to different aspects of the non-abusive mother's personality than it did for the abusive mother's personality. For both groups the measure was related to Frustrated Nurturance (AM $r = .59$; NAM $r = .37$), but there were significant differences on several other measures. Within the non-abuse group TAT aggression was also associated with having older children ($r = .43$) and using punishment as a disciplinary method ($r = .46$). Within the abuse group, the measure was related to Generativity ($r = .40$), Frustrated Dominance ($r = .59$), and Frustrated Independence ($r = .55$). The hostility of the control group appeared more related to attitudes of punishment and to objective characteristics of the family while that of the abusive mothers appeared more related to psychopathology and unsatisfactory interpersonal relationships.

The frustrated independence variable is an interesting one and difficult to interpret. The measure was higher for the non-abusive group, yet most highly correlated with education, though the educational

level of abusive mothers was higher than that for the non-abusive mothers. It appears that the unique and discriminatory aspect of the frustrated independence variable is that part which is not correlated with education. For both groups there was moderate positive correlation with Pathogenesis (AM $r = .34$; NAM $r = .30$), which appears to be one aspect of the variable. Further research is needed to determine if lower frustrated independence is a characteristic of abusive mothers or is a particularly high characteristic of mothers who are essentially normal but on ADC. A study comparing matched ADC and non-ADC mothers might resolve this question. Though there is no confirmation in the literature, the difference may be due to the non-abusive mothers being relatively well adjusted psychologically and therefore frustrated by their status as welfare recipients. The abusive mothers may be so preoccupied by more basic psychological issues that they are not as concerned by their welfare recipient status. Their dependent status may be need fulfilling.

Implication of Test Results

Comparison with Melnick-Hurley Study

The results of the present study were basically supportive of the Melnick-Hurley study, particularly in regard to the objective measures of family concept and sense of personal worth. The TAT results are not entirely consistent with the results of the previous study. A slight trend in the Melnick-Hurley study for abusive mothers to show more aggression than controls was amplified. The finding in the

Melnick-Hurley study of abusive mothers manifesting greater pathogenesis was also supported. The relatively lower aggression scores on the part of abusive mothers in the Melnick-Hurley study may have been a function of using fewer subjects and simpler scoring criteria on the aggression variable.

The total frustration scores in the previous study were significantly higher for the abusive group as was nurturance frustration. The lack of higher frustration scores for abusive mothers and the significantly higher independence frustration scores for non-abusive mothers are contrary to the results of this prior study. Nurturance needs for abusive mothers were not significantly lower than non-abusive mothers in the present study. An explanation for the discrepancies is not easily found.

Aggression Measures

The TAT measure of aggression appears to be a clearer measure of aggression and hostility than does Tryon's MMPI variable of aggression as included in the objective measures. The TAT measure does not correlate highly with any other measure used in the study except Frustrated Nurturance (.52). The objective measure of aggression, on the other hand, correlated very highly with Depression and Apathy (.78) and with many other measures. Because the objective measure was so highly intercorrelated, interpretation of the full meaning of the measure is difficult. Adding to the difficulty of interpretation is the fact

that the two measures of aggression have a low (though significant) correlation (.31) with each other considering the expectation that they were measuring much the same dimension. Inspection of the apparent content of the questions and responses indicates both are valid measures of hostility and aggression.

The author tentatively concludes that the objective measure of resentment and aggression is reflective of moving away from others while the TAT measure is reflective of moving against others, a concept formulated by Horney (1945). The high and frequent negative correlations between the objective, MMPI aggression measure and the measures indicating a sense of personal worth, positive family concept, and positive orientation towards psychological development (Eriksonian measures) suggests movement away from others. The TAT measure of aggression reflects themes of murder, death, and demons and correlates positively with Frustrated Nurturance, a category composed of themes of desertion, quarreling, and non-nurturance of others. The TAT measure suggests movement against others. Distinctive facets of hostility appear to be involved.

Efficacy of the TAT

The TAT measured unique aspects of the between group differences as evidenced by the presence of the two "significant" TAT categories at the head of the list of standardized discriminant functions. Wright's (1975) contention, however, that projective tests are imperative to ascertain personality differences in abusive parents

is not supported. At least in the present study, abusive mothers appeared willing to straightforwardly endorse statements which are quite blatantly psychopathological.

The combination of objective tests and Eriksonian measures was as effective, or more so, in discriminating between the groups as any combination including the TAT. The TAT was, by far, the most time consuming to administer and to score, which lessens its efficacy. The indication that it elucidates a dimension not measured by the other tests does, however, suggest that a researcher who wants to study the full range of personality differences between the two groups might well include the TAT or other projective measures.

Ameliorative Efforts

Abusive mothers did not differ significantly from non-abusive mothers in terms of their values regarding reward and punishment of their children but did differ significantly in their ability to trust others, in their feelings towards themselves and their families, in their levels of hostility and apathy, and in their ability to be close to others. These facts suggest that ameliorative efforts for abusive mothers should concentrate on the basics of helping her develop trust, establish ability to act on her own, explore her identity, and learn to be intimate with significant others. Parent training experiences are likely not helpful because the abusive mother may well already have the technical knowledge and appropriate values for being non-abusive but

lack the basic essential foundations of personality to carry out the appropriate behaviors. Informal discussions with person who have taught parenting courses to abusive parents are supportive of the conclusion.

Generalizability of Results

The subjects in the Melnick-Hurley study were Black. It is apparent that the personality differences between White abusive and non-abusive mothers are similar to the differences between Black abusive and non-abusive mothers. The generalizability of the results to all abusive mothers rather than just abusive mothers on ADC is suggested on the basis of the strength of the differences between the abuse and non-abuse groups as well as the overall consistency of the results with the Melnick-Hurley study and other studies reported in the literature on child abuse.

Discriminant Analysis

In addition to further highlighting those variables which most differentiated the abusive from the non-abusive mothers, the results of the discriminant analysis suggest potential for a prediction scheme. Using all 24 variables (dependent measures and covariates) resulted in correct classification of 97.5% of the subjects. It is realized that the high "predictive" ability may well not be retained for new groups of abusive mothers. The ability to predict child abuse is dependent on the accuracy of the measures and also on the incidence in the population. Though only rough approximations of the incidence are

known, child abuse is relatively rare. Even with very good predictors, prediction of a rarely occurring phenomenon can result in the identification of large numbers of false "positives"; slightly less than 100% accuracy can render a statistically effective prediction scheme worthless. The expense of monitoring and treating false "positives" becomes a problem even without considering the hazards of a person's reaction to being classified as potentially abusive, correctly or incorrectly. For the undaunted, however, it is in the realm of possibility to develop a workable prediction scheme.

The discriminant analysis results suggest that no one set of personality measures have superior discriminating power over the others and that any two of the three sets of dependent variables in conjunction with the four covariates can be combined for a loss of only 2.5% of correct classification. Using all three sets of dependent measures, rather than any combination of two, does not seem of sufficiently additional value unless one is developing a prediction scheme where every percentage of correct prediction is of utmost importance.

Abusive Client Versus Non-Client Analysis

The effect of including the abusive clients of the experimenter in the abusive group appears negligible because no significant differences were obtained between the abusive client and non-client groups on measures which distinguished between the abusive and non-abusive group. The significant difference between abusive psychotherapy clients and abusive non-clients on the dimension of Industry versus Inferiority

is interesting and has potential applicability. Those abusive parents who enter psychotherapy may well be those who at least have the ego-strength to seek help and to persist in efforts of self-improvement. The highly significant negative correlation between Depression and Apathy and Industry versus Inferiority ($r = -.73$; $p < .001$) supports this conclusion. An expansion of this dimension might lead to a predictive measure of who would at least attend psychotherapy; the high drop-out rate of abusive parents in psychotherapy is often a perplexing problem. To identify who would and who would not drop out of psychotherapy would be an asset to management of abuse cases.

Covariates

Education was consistently a factor which had to be considered; interestingly, and supportive of the results of Terr (1970) and Elmer (1967), the educational level of the abusive parent tended to be higher than that of the control despite the fact that they were in the same social class. The average age of children was an important factor; abusive parents who were younger had, predictably, younger children. The number of children being a factor with abusive mothers having fewer can be explained by the fact that they and their children are younger and they therefore have more years of child-bearing age remaining. The covariates appear to reflect actuarial aspects which are unique from the personality measures and which also have an effect as to whether or not a mother is abusive. It is concluded that any prediction scheme must take into account actuarial data as well as

personality data. The suggestions in the literature by Gil (1971) and Gelles (1973) that abuse is a reflection of the social environment as well as the individual personality is supported by the study.

Race

These data provide no reasonable basis for clarifying the relationship between race and abusiveness. The disparity between the number of Black women in the control group and the experimental group was unexpected and is difficult to explain in terms of chance alone. A breakdown by race of the client population of Ingham County Department of Social Services is not available. Approximately 43% of the statewide client population of Social Services is Black (Carter & Nell, 1974). However, 11% of the population of the State of Michigan is Black and the percentage of Blacks in the standard metropolitan statistical area of Clinton, Eaton, and Ingham counties is 9% (U.S. Department of Commerce, 1972). If Ingham County is typical, then it would be expected that approximately 40 to 43% of the client population of Ingham County Social Services would be Black. The control group was 40% Black, close to statistical expectations. If the assertion from the literature is valid, that the percentage of Black abusers generally represents their percentage in the population at large (Schlosser, 1964) or that Blacks are proportionately more frequent abusers than Whites (Gil, 1970; Glazier, 1971), then it would be expected that the percentage of Blacks in the experimental group would be at least in the range of 40 to 45%. In fact, only one abusive mother, 5%, was Black.

There are at least four possible explanations for the disparity. The difference may be a chance occurrence. Blacks may actually be relatively more infrequently abusive of their children; Blacks may be less frequently reported for abuse; or Blacks, when reported for abuse, may be more frequently either given no monitoring and assistance or directly referred to the court system or may refuse services. The likelihood of so large a chance difference seems small. That Blacks are proportionately less abusive is contrary to the literature. That Blacks are not reported when abuse occurs seems unlikely, since the literature makes mention of the impression that Blacks (and the poor) more often get reported because of prejudice on the part of neighbors, hospital staff, and law-enforcement agents (Wasserman, 1967; Gil, 1970). The last assertion, that a Black abusive parent is less likely to be rendered supportive services, more likely to be referred to probate or criminal court, or more likely to refuse services, is more difficult to disprove. Analysis of the comparison of the disposition of Black and White abusive parents should be made to investigate the matter.

Marital Status

Marital status was not significantly associated with abuse status; its marginally significant association with the trust variable, though not central to this study, is an interesting result. Inability to trust others may be an important factor in choosing to remain single. The scores on this measure indicate that single abusive mothers are uniquely high, as a subgroup, in their unwillingness to trust others.

Future Research

Two directions for future research are suggested. One is for more general research on the personality of child abusers. Both the Melnick-Hurley and the present study used ADC mothers as subjects. The fact that essentially different racial groups were studied suggests that Black and White abusive mothers have similar personalities, at least those on ADC. A study is needed to further examine the earlier contention that the abusive mother on ADC has a similar personality to her non-ADC abusive counterpart. The nature of the personality of the abusive father needs much further study, as Amberg's (1976) findings are inconclusive. Nor has a systematic and controlled study been reported of the personality characteristics of the spouse of the abusive parent in two-parent abusive families. The second area suggested for future concentration is the development of a prediction scheme, as discussed earlier in the discriminant analysis section. Identifying a potentially abusive parent before an abusive act rather than after the act must become a major goal.

Anyone planning research in the area of child abuse should take into account the relative scarcity of abusive subjects, the reluctance of social agencies to allow interviewing of abusive clients, and the possibility that the racial composition of the sample may be different from that anticipated. The preparatory coordination to conduct a study is extensive and recruitment of subjects is time consuming.

Even with extensive planning, the unexpected occurs. A case in point is the much lower than expected number of Black mothers in the abusive group. Reasons for the low frequency are not fully understood; retrospectively, the experimenter is aware that on no occasion during a one-and-one-half year-period was a Black abusive client referred to him for psychotherapy nor were any Blacks involved in the local, self-help group, Parents Anonymous. Before initiating a study, future researchers should anticipate a possible racial disparity and control for it by extensive recruitment of minority subjects or exclusion of the minority from the control group.

Conclusion

Each set of measures used in the study, the objective tests, the Eriksonian measures, and the TAT, are capable of establishing personality dimensions on which abusive mothers are different from non-abusive mothers. The abusive mothers, compared to the non-abusive mothers, manifested greater resentment and aggression, and depression and apathy. They had a lower sense of personal worth and a lower concept of their family. They showed evidence of having less successfully resolved developmental conflicts, particularly in their ability to trust others and to establish a sense of identity. The abusive mothers scored lower on a measure of frustrated independence. They appeared no different from non-abusive mothers in terms of their values and attitudes towards use of punishment and reward as disciplinary procedures.

The results strengthen the widely held assumption that the personality of the child abuser is markedly different from that of the non-abusive parent. The extent and pervasiveness of the psychopathology of the abusive mother has not been heretofore so well established by systematic research. No previous research is known to have investigated the attitudes toward discipline held by abusive mothers. The similarity of the results to earlier studies strengthens the contention that abusive mothers from disparate social and ethnic groups have in common many personality traits.

Several applications of the study results are suggested. The appropriate focus for psychotherapeutic efforts with abusive mothers has been made a little more clear. The distinct possibility is raised that a prediction scheme can be developed which will identify the abusive parent before the occurrence of an abusive incident. Measures have been identified which are capable of elucidating factors which contribute to the psychological make-up of an abusive mother. It is hoped that the potential applications suggested will be realized and that in some small way this study will contribute to the reduction of a very serious social problem.

APPENDICES

APPENDIX A

FAMILY CONCEPT INVENTORY

Instructions:

Indicate the degree of your agreement or disagreement with each of the following items as it applies to your immediate family and encircle the letter representing the appropriate response. First impressions are satisfactory, and most people are able to complete this inventory in ten minutes. It is quite important that you give a response to each item, even though it may sometimes be difficult to make a decision.

| | <u>SA</u> | <u>A</u> | <u>N</u> | <u>D</u> | <u>SD</u> |
|--|-----------------------|----------------------|---------------------------------------|-------------------------|--------------------------|
| | <i>Strongly Agree</i> | <i>Tend to Agree</i> | <i>Neither Agree Nor Disagree</i> | <i>Tend to Disagree</i> | <i>Strongly Disagree</i> |
| 1. We can usually depend on each other. | SA | A | N | D | SD |
| 2. We have a number of close friends. | SA | A | N | D | SD |
| 3. We feel secure when we are with each other. | SA | A | N | D | SD |
| 4. We do many things together. | SA | A | N | D | SD |
| 5. Each of us wants to tell the others what to do. | SA | A | N | D | SD |
| 6. There are serious differences in our standards and values. | SA | A | N | D | SD |
| 7. We feel free to express any thoughts or feelings to each other. | SA | A | N | D | SD |
| 8. Our home is the center of our activities. | SA | A | N | D | SD |
| 9. We are an affectionate family. | SA | A | N | D | SD |
| 10. It is not our fault that we are having difficulties. | SA | A | N | D | SD |
| 11. Little problems often become big ones for us. | SA | A | N | D | SD |
| 12. We do not understand each other. | SA | A | N | D | SD |
| 13. We get along very well in the community. | SA | A | N | D | SD |
| 14. We often praise or compliment each other. | SA | A | N | D | SD |
| 15. We do not talk about sex. | SA | A | N | D | SD |
| 16. We get along much better with persons outside the family than with each other. | SA | A | N | D | SD |
| 17. We are proud of our family. | SA | A | N | D | SD |
| 18. We do not like each other's friends. | SA | A | N | D | SD |
| 19. There are many conflicts in our family. | SA | A | N | D | SD |
| 20. We are usually calm and relaxed when we are together. | SA | A | N | D | SD |
| 21. We respect each other's privacy. | SA | A | N | D | SD |
| 22. Accomplishing what we want to do seems to be difficult for us. | SA | A | N | D | SD |
| 23. We tend to worry about many things. | SA | A | N | D | SD |
| 24. We are continually getting to know each other better. | SA | A | N | D | SD |

| | <u>SA</u> | <u>A</u> | <u>N</u> | <u>D</u> | <u>SD</u> |
|--|-----------|----------|----------|----------|-----------|
| 25. We encourage each other to develop in his or her own individual way. | SA | A | N | D | SD |
| 26. We have warm, close relationships with each other. | SA | A | N | D | SD |
| 27. Together we can overcome almost any difficulty. | SA | A | N | D | SD |
| 28. We really do trust and confide in each other. | SA | A | N | D | SD |
| 29. The family has always been very important to us. | SA | A | N | D | SD |
| 30. We get more than our share of illness. | | | | | |
| 31. We are considerate of each other. | SA | A | N | D | SD |
| 32. We can stand up for our rights if necessary. | SA | A | N | D | SD |
| 33. We have very good times together. | SA | A | N | D | SD |
| 34. We live largely by other people's standards and values. | SA | A | N | D | SD |
| 35. Usually each of us goes his own separate way. | SA | A | N | D | SD |
| 36. We resent each other's outside activities. | SA | A | N | D | SD |
| 37. We have respect for each other's feelings and opinions even when we differ strongly. | SA | A | N | D | SD |
| 38. We sometimes wish we could be an entirely different family. | SA | A | N | D | SD |
| 39. We are sociable and really enjoy being with people. | SA | A | N | D | SD |
| 40. We are a disorganized family. | SA | A | N | D | SD |
| 41. We are not really fond of one another. | SA | A | N | D | SD |
| 42. We are a strong competent family. | SA | A | N | D | SD |
| 43. We just cannot tell each other our real feelings. | SA | A | N | D | SD |
| 44. We are not satisfied with anything short of perfection. | SA | A | N | D | SD |
| 45. We forgive each other easily. | SA | A | N | D | SD |
| 46. We usually reach decisions by discussion and compromise. | SA | A | N | D | SD |
| 47. We can adjust well to new situations. | SA | A | N | D | SD |
| 48. Our decisions are not our own, but are forced on us by circumstances. | SA | A | N | D | SD |

APPENDIX B

PERSONAL WORTH SUBSCALE

| | | |
|--|-----|----|
| 1. Do people seem to show an unusual interest in the things you are doing? | YES | NO |
| 2. Do you feel that you are not very good at handling money? | YES | NO |
| 3. Do you find it hard to get people to accept your ideas? | YES | NO |
| 4. Do most of your friends have confidence in your ability? | YES | NO |
| 5. Are you often invited to social affairs? | YES | NO |
| 6. Do your superiors pay as much attention to you as you deserve? | YES | NO |
| 7. Are you considered mediocre in many of the things you do? | YES | NO |
| 8. Do people usually ask for your judgment in important matters? | YES | NO |
| 9. Do people usually depend upon you for advice? | YES | NO |
| 10. Do your friends seem to think that you have made the success of which you are capable? | YES | NO |
| 11. Do you feel as competent in your work as you would like? | YES | NO |
| 12. Even when you show good judgment, do you often fail to receive proper credit? | YES | NO |
| 13. Are you considered unusually capable or courageous? | YES | NO |
| 14. Do most of your friends go out of their way to help you? | YES | NO |
| 15. Do your friends seem to think that you have outstanding personality? | YES | NO |

APPENDIX C

TRYON'S RESENTMENT AND AGGRESSION SUBSCALE

1. I do many things which I regret afterwards (I regret things more or more often than others seem to).
2. I easily become impatient with people.
3. I am often sorry because I am so cross and grouchy.
4. I am not easily angered.
5. When I am feeling very happy and active, someone who is blue or low will spoil it all.
6. At times I feel like smashing things.
7. I am often said to be hot headed.
8. At times I have a strong urge to do something harmful or shocking.
9. It makes me angry to have people hurry me.
10. Sometimes I feel as if I must injure either myself or someone else.
11. I get mad easily and then get over it soon.
12. Often I can't understand why I have been so cross and grouchy.
13. At times I feel like picking a fist fight with someone.
14. It makes me impatient to have people ask my advice or otherwise interrupt me when I am working on something important.
15. When someone does me a wrong I feel I should pay him back if I can, just for the principle of the thing.
16. I resent having anyone take me in so cleverly that I have had to admit that it was one on me.
17. It bothers me to have someone watch me at work even though I know I can do it well.
18. I wish I could get over worrying about things I have said that may have injured other people's feelings.

19. Much of the time I feel as if I have done something wrong or evil.
20. I have often lost out on things because I couldn't make up my mind soon enough.
21. I am apt to pass up something I want to do because others feel that I am not going about it in the right way.

APPENDIX D

TRYON'S DEPRESSION AND APATHY SUBSCALE

1. Most of the time I feel blue.
2. I am happy most of the time.
3. I brood a great deal.
4. Life is a strain for me much of the time.
- 5. I seldom have spells of the blues.
6. I feel like giving up quickly when things go wrong.
7. I have had periods of days, weeks, or months when I couldn't take care of things because I couldn't get along.
8. I have difficulty in starting to do things.
9. At times I think I am no good at all.
- 10. My daily life is full of things that keep me interested.
11. I shrink from facing a crisis or difficulty.
12. I wish I could be happy as others seem to be.
13. I am apt to take disappointments so keenly that I can't put them out of my mind.
14. Often, even though everything is going fine for me, I feel that I don't care about anything.
15. I have not lived the right kind of life.
16. It makes me feel like a failure when I hear of the success of someone I know well.
17. I certainly feel useless at times.

(through 17, $r = .910$; next 11 plus previous, $r = .935$)

18. I have sometimes felt that difficulties were piling up so high that I could not overcome them.
19. The future seems hopeless to me.
20. I am inclined to take things hard.
21. I feel unable to tell anyone all about myself.
22. These days I find it hard not to give up hope of amounting to something.
23. I have several times given up doing a thing because I thought too little of my ability.
24. There is something wrong with my mind.
25. Most of the time I wish I were dead.
- 26. I usually feel that life is worthwhile.
- 27. My judgment is better than it ever was.
28. I don't seem to care what happens to me.

APPENDIX E

VALUE ORIENTATION MEASURE

We would like to know how you feel about the child behaviors listed below: Would you punish or reward them; and how much would you reward or punish them? After each behavior, please print the letter P (punish) or R (reward), and circle one of the numbers (1, 2, 3, 4, 5)--from very little to very much--the amount you feel you would either punish or reward the behavior. Please keep in mind your child when working on this questionnaire.

| CHILD'S BEHAVIORS | P or R | 1 | 2 | 3 | 4 | 5 |
|--|----------|------------------------|---|---|---|----------------------|
| | | <i>very little</i> | | | | <i>very much</i> |
| (SAMPLE: Climbing a tree) | <u>P</u> | ① | 2 | 3 | 4 | 5) |
| <hr/> | | | | | | |
| 1. not listening to parents when spoken to | — | 1 | 2 | 3 | 4 | 5 |
| 2. behaving well when out shopping | — | 1 | 2 | 3 | 4 | 5 |
| 3. fighting with friends | — | 1 | 2 | 3 | 4 | 5 |
| 4. not bothering mother when she is busy | — | 1 | 2 | 3 | 4 | 5 |
| 5. not sharing his (her) toys | — | 1 | 2 | 3 | 4 | 5 |
| 6. telling lies | — | 1 | 2 | 3 | 4 | 5 |
| 7. not running in the street | — | 1 | 2 | 3 | 4 | 5 |
| 8. leaving toys scattered around the house | — | 1 | 2 | 3 | 4 | 5 |
| 9. cleaning up his (her) room | — | 1 | 2 | 3 | 4 | 5 |
| 10. not being a poor loser in games | — | 1 | 2 | 3 | 4 | 5 |
| 11. not behaving when visiting relatives | — | 1 | 2 | 3 | 4 | 5 |
| 12. not cheating in school | — | 1 | 2 | 3 | 4 | 5 |
| 13. playing nicely with friends | — | 1 | 2 | 3 | 4 | 5 |
| 14. helping mother around the house | — | 1 | 2 | 3 | 4 | 5 |
| 15. purposely breaking toys | — | 1 | 2 | 3 | 4 | 5 |
| 16. not getting new clothes dirty | — | 1 | 2 | 3 | 4 | 5 |
| 17. playing with harmful objects | — | 1 | 2 | 3 | 4 | 5 |

| | | | | | | |
|--|---|---|---|---|---|---|
| 18. not doing well in school | — | 1 | 2 | 3 | 4 | 5 |
| 19. not coming to the dinner table when called | — | 1 | 2 | 3 | 4 | 5 |
| 20. tracking dirt into the house | — | 1 | 2 | 3 | 4 | 5 |
| 21. doing well at a new task | — | 1 | 2 | 3 | 4 | 5 |
| 22. sharing his (her) toys with friends | — | 1 | 2 | 3 | 4 | 5 |
| 23. not keeping room clean | — | 1 | 2 | 3 | 4 | 5 |
| 24. not taking toys away from friends | — | 1 | 2 | 3 | 4 | 5 |

APPENDIX F

ERIKSONIAN DEVELOPMENTAL SCALE

Trust versus Mistrust

- 1. calm and untroubled
- 15. open to new ideas
- 29. always optimistic
- 43. take things as they come
- 57. complete confidence in myself

- 8. if anything can go wrong in my life, it will
- 22. can't share things with anybody
- 36. have little hope
- 50. faintly remember when everything was really good
- 64. never get what I really want

Autonomy versus Shame and Doubt

- 9. rather be on my own, even if there is risk involved
- 23. free and apt to do things on the spur of the moment
- 37. stand on my own two feet
- 51. quietly go my own way
- 65. know when to do what I want and when to do what others want

- 2. act the same in all situations
- 16. have a place for everything
- 30. unsure, careful and doubtful
- 44. feel like I am being followed
- 58. always wrong and sorry

Initiative versus Guilt

- 3. like adventure
- 17. full of energy
- 31. willing to work for success
- 45. likes to invent new solutions to new problems
- 59. sexually aware

- 10. dislike sex
- 24. afraid of not being sexy enough
- 38. think too much about the wrong things
- 52. big smoke but no fire
- 66. keep my feelings and desires to myself

Industry versus Inferiority

- 11. hard working and try to do a good job
- 25. interested in learning
- 39. serious and have high standards
- 53. get a lot done
- 67. very good at what I do

- 4. don't get done what I want to
- 18. never put everything I have into a project
- 32. waste my time
- 46. don't amount to much
- 60. on the loose

Identity versus Role Diffusion

- 5. always confident
- 19. always myself
- 33. always at ease
- 47. know who I am and what I want out of life
- 61. proud of myself

- 12. am not who I seem to others
- 26. try to do too much and too many things
- 40. try to look at ease
- 54. never know how I feel
- 68. never promise anything to anybody

Intimacy versus Isolation

- 13. open to other people
- 27. warm and friendly
- 41. concerned about others
- 55. never say the wrong thing
- 69. comfortable in intimate relationships

- 6. don't like the rest of the world
- 20. feel like the most important person in the world is me
- 34. very lonely
- 48. cold and stay away from people
- 62. really don't care what others think of me

Generativity versus Stagnation

- 14. creative
- 28. enjoy teaching those younger than myself
- 42. productive
- 63. want to be needed
- 70. determined that my children will live in a better world

- 7. bored with life
- 21. believe children should be seen and not heard
- 35. used by others
- 49. believe children should take care of themselves
- 56. believe most children are selfish

APPENDIX G

E-SCALE

Rate the following on a 7-point scale according to the degree to which they do or do not apply to you; please rate them according to how you really are, not how you would like to be. A 1 means that the statement very much does not apply to you; a 7 means that the statement very much does apply to you. The numbers between 1 and 7 represent different degrees that the statements do or do not apply. Please circle the number which represents the degree to which the statement applies to you.

| | <i>does not apply</i> | | <i>applies somewhat</i> | | | <i>applies very much</i> | |
|---|-------------------------------|----------|-----------------------------|----------|----------|----------------------------------|----------|
| | <u>↓</u> | | <u>↓</u> | | | <u>↓</u> | |
| | <u>1</u> | <u>2</u> | <u>3</u> | <u>4</u> | <u>5</u> | <u>6</u> | <u>7</u> |
| 1. calm and untroubled | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. act the same in all situations | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. like adventure | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. don't get done what I want to | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. always confident | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6. don't like the rest of the world | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7. bored with life | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8. if anything in my life can go wrong, it will. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 9. rather be on my own, even if there is risk involved | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 10. dislike sex | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 11. hard working and try to do a good job | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 12. am not whom I seem to others | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 13. open to other people | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 14. creative | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

| | <i>does not apply</i> ↓ | | <i>applies somewhat</i> ↓ | | | <i>applies very much</i> ↓ | |
|--|------------------------------------|----------|----------------------------------|----------|----------|---------------------------------------|----------|
| | <u>1</u> | <u>2</u> | <u>3</u> | <u>4</u> | <u>5</u> | <u>6</u> | <u>7</u> |
| 15. open to new ideas | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 16. have a place for everything | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 17. full of energy | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 18. never put everything I have into a project | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 19. always myself | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 20. feel like the most important person in the world | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 21. believe children should be seen and not heard | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 22. can't share things with anybody | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 23. free and apt to do things on the spur of the moment | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 24. afraid of not being sexy enough | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 25. interested in learning | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 26. try to do too much and too many things . . | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 27. warm and friendly | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 28. enjoy teaching those younger than myself . | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 29. always feel things will turn out for the best | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 30. unsure, careful, and doubtful | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 31. willing to work for success | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 32. waste my time | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 33. always at ease | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

| | <i>does not apply</i> | | <i>applies somewhat</i> | | <i>applies very much</i> | |
|---|-------------------------------|----------|-----------------------------|----------|----------------------------------|-------------------|
| | <u>↓</u> | | <u>↓</u> | | <u>↓</u> | |
| | <u>1</u> | <u>2</u> | <u>3</u> | <u>4</u> | <u>5</u> | <u>6</u> <u>7</u> |
| 34. very lonely | 1 | 2 | 3 | 4 | 5 | 6 7 |
| 35. used by others | 1 | 2 | 3 | 4 | 5 | 6 7 |
| 36. have little hope | 1 | 2 | 3 | 4 | 5 | 6 7 |
| 37. stand on my own two feet | 1 | 2 | 3 | 4 | 5 | 6 7 |
| 38. think too much about the wrong things . . . | 1 | 2 | 3 | 4 | 5 | 6 7 |
| 39. serious and have high standards | 1 | 2 | 3 | 4 | 5 | 6 7 |
| 40. try to look at ease | 1 | 2 | 3 | 4 | 5 | 6 7 |
| 41. concerned about others | 1 | 2 | 3 | 4 | 5 | 6 7 |
| 42. productive | 1 | 2 | 3 | 4 | 5 | 6 7 |
| 43. take things as they come | 1 | 2 | 3 | 4 | 5 | 6 7 |
| 44. feel like I am being followed | 1 | 2 | 3 | 4 | 5 | 6 7 |
| 45. like to invent new solutions to new problems | 1 | 2 | 3 | 4 | 5 | 6 7 |
| 46. don't amount to much | 1 | 2 | 3 | 4 | 5 | 6 7 |
| 47. know who I am and what I want out of life . | 1 | 2 | 3 | 4 | 5 | 6 7 |
| 48. cold and stay away from people | 1 | 2 | 3 | 4 | 5 | 6 7 |
| 49. believe children should take care of themselves | 1 | 2 | 3 | 4 | 5 | 6 7 |
| 50. faintly remember when everything was really good | 1 | 2 | 3 | 4 | 5 | 6 7 |
| 51. quietly go my own way | 1 | 2 | 3 | 4 | 5 | 6 7 |
| 52. big smoke but no fire | 1 | 2 | 3 | 4 | 5 | 6 7 |
| 53. get a lot done | 1 | 2 | 3 | 4 | 5 | 6 7 |

| | <i>does not apply</i> | | <i>applies somewhat</i> | | | <i>applies very much</i> | |
|--|-------------------------------|----------|-----------------------------|----------|----------|----------------------------------|----------|
| | <u>↓</u> | | <u>↓</u> | | | <u>↓</u> | |
| | <u>1</u> | <u>2</u> | <u>3</u> | <u>4</u> | <u>5</u> | <u>6</u> | <u>7</u> |
| 54. never know how I feel | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 55. never say the wrong thing | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 56. believe most children are selfish | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 57. complete confidence in myself | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 58. always wrong and sorry | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 59. sexually aware | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 60. on the loose | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 61. proud of myself | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 62. really don't care what others think of me . | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 63. want to be needed | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 64. never get what I really want | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 65. know when to do what I want and when to do what others want | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 66. keep my feelings and desires to myself . . | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 67. very good at what I do | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 68. never promise anything to anybody | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 69. comfortable to intimate relationships . . . | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 70. determined that my children will live in a better world | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

APPENDIX H

ATTITUDE QUESTIONNAIRE

Instructions: This inventory consists of numbered statements. Read each statement. You are to mark one of the boxes to the right of each statement. If a statement is TRUE or MOSTLY TRUE, as applied to you, blacken between the lines in the column headed T. If a statement is FALSE or NOT USUALLY TRUE, as applied to you, blacken between the lines in the column headed F. Please mark each statement. Remember to give your own opinion of yourself.

| | <u>T</u> | <u>F</u> |
|--|----------|----------|
| 1. Most of the time I feel blue. | | |
| 2. I do many things which I regret afterwards (I regret things more or more often than others seem to.) | | |
| 3. I am happy most of the time. | | |
| 4. I easily become impatient with people. | | |
| 5. People seem to show an unusual interest in the things I am doing. | | |
| 6. I brood a great deal. | | |
| 7. I am often sorry because I am so cross and grouchy. | | |
| 8. I feel that I am not very good at handling money. | | |
| 9. Life is a strain for me much of the time. | | |
| 10. I seldom have spells of the blues. | | |
| 11. I am not easily angered. | | |
| 12. When I am feeling very happy and active, someone who is blue or low will spoil it all. | | |
| 13. I find it hard to get people to accept my ideas. | | |
| 14. I feel like giving up quickly when things go wrong. | | |
| 15. I have had periods of days, weeks, or months when I couldn't take care of things because I couldn't get along. | | |

| | <u>I</u> | <u>F</u> |
|---|----------|----------|
| 16. At times I feel like smashing things. | | |
| 17. Most of my friends have confidence in my ability. | | |
| 18. I have difficulty in starting to do things. | | |
| 19. I am often said to be hot headed. | | |
| 20. At times I think I am no good at all. | | |
| 21. At times I have a strong urge to do something harmful or shocking. | | |
| 22. My daily life is full of things that keep me interested . | | |
| 23. It makes me angry to have people hurry me. | | |
| 24. I am often invited to social affairs. | | |
| 25. I shrink from facing a crisis or difficulty. | | |
| 26. Sometimes I feel as if I must injure either myself or someone else. | | |
| 27. I wish I could be happy as others seem to be. | | |
| 28. I get mad easily and then get over it soon. | | |
| 29. My superiors pay as much attention to me as I deserve. . | | |
| 30. I am considered barely average in many of the things I do. | | |
| 31. I am apt to take disappointments so keenly that I can't put them out of my mind. | | |
| 32. Often, even though everything is going fine for me, I feel that I don't care about anything. | | |
| 33. I have not lived the right kind of life. | | |
| 34. Often I can't understand why I have been so cross and grouchy. | | |
| 35. People usually ask for my judgment in important matters . | | |
| 36. At times I feel like picking a fist fight with someone. . | | |

| | <u>T</u> | <u>F</u> |
|--|----------|----------|
| 37. It makes me impatient to have people ask my advice or otherwise interrupt me when I am working on something important. | | |
| 38. It makes me feel like a failure when I hear of the success of someone I know well. | | |
| 39. When someone does me a wrong, I feel I should pay him back if I can, just for the principle of the thing. | | |
| 40. I certainly feel useless at times. | | |
| 41. People usually depend on me for advice. | | |
| 42. I have sometimes felt that difficulties were piling up so high that I could not overcome them. | | |
| 43. I resent having anyone take me in so cleverly that I have had to admit that it was one on me. | | |
| 44. It bothers me to have someone watch me at work even though I know I can do it well. | | |
| 45. The future seems hopeless to me. | | |
| 46. My friends seem to think that I have made the success of which I am capable. | | |
| 47. I am inclined to take things hard. | | |
| 48. I feel unable to tell anyone all about myself | | |
| 49. I wish I could get over worrying about things I have said that may have injured other people's feelings. . . . | | |
| 50. These days I find it hard not to give up hope of amounting to something. | | |
| 51. Much of the time I feel as if I have done something wrong or evil. | | |
| 52. I feel as competent in my work as I would like. | | |
| 53. I have several times given up doing a thing because I thought too little of my ability. | | |

| | <u>I</u> | <u>F</u> |
|---|----------|----------|
| 54. Even when I show good judgment, I often fail to receive proper credit. | | |
| 55. There is something wrong with my mind. | | |
| 56. Most of the time I wish I were dead. | | |
| 57. I have often lost out on things because I couldn't make up my mind soon enough. | | |
| 58. I am considered unusually capable or courageous. | | |
| 59. I usually feel that life is worthwhile. | | |
| 60. I am apt do pass up something I want to do because others feel that I am not going about it in the right way. | | |
| 61. Most of my friends go out of their way to help me. | | |
| 62. My judgment is better than it ever was. | | |
| 63. My friends seem to think that I have an outstanding personality. | | |
| 64. I don't seem to care what happens to me. | | |

APPENDIX I

RATER PRACTICE RELIABILITIES

Practice Session I

| Category | Rater combinations | | | \bar{r} | Spearman-Brown r |
|-------------------------|--------------------|-----|-----|-----------|--------------------|
| | A&B | B&C | A&C | | |
| Aggression | .77 | .68 | .76 | .74 | .89 |
| Frustrated Nurturance | .71 | .60 | .63 | .65 | .85 |
| Frustrated Dependency | .65 | .60 | .67 | .64 | .84 |
| Frustrated Independence | .34 | .45 | .46 | .42 | .68 |
| Frustrated Affiliation | .53 | .74 | .64 | .64 | .84 |
| Frustrated Dominance | .50 | .48 | .41 | .46 | .71 |
| Absence of Affect | .56 | .51 | .28 | .45 | .71 |
| Pathogenesis | .53 | .63 | .49 | .55 | .80 |

Practice Session II

| Category | Rater combinations | | | \bar{r} | Spearman-Brown r |
|-------------------------|--------------------|-----|-----|-----------|--------------------|
| | A&B | B&C | A&C | | |
| Aggression | .72 | .68 | .53 | .64 | .84 |
| Frustrated Nurturance | .72 | .67 | .42 | .60 | .82 |
| Frustrated Dependency | .64 | .58 | .33 | .52 | .76 |
| Frustrated Independence | .68 | .68 | .68 | .68 | .86 |
| Frustrated Affiliation | .78 | .65 | .58 | .67 | .86 |
| Frustrated Dominance | .59 | .30 | .65 | .51 | .76 |
| Absence of Affect | .67 | .66 | .78 | .70 | .88 |
| Pathogenesis | .69 | .75 | .53 | .66 | .85 |

Practice Session III

| Category | Rater combinations | | | \bar{r} | Spearman-Brown r |
|-------------------------|--------------------|-----|-----|-----------|--------------------|
| | A&B | B&C | A&C | | |
| Aggression | .70 | .74 | .90 | .78 | .92 |
| Frustrated Nurturance | .68 | .64 | .59 | .64 | .84 |
| Frustrated Dependency | .52 | .25 | .50 | .42 | .69 |
| Frustrated Independence | .57 | .77 | .73 | .69 | .87 |
| Frustrated Affiliation | .67 | .10 | .43 | .40 | .67 |
| Frustrated Dominance | .19 | .39 | .34 | .31 | .57 |
| Absence of Affect | .60 | .51 | .83 | .65 | .85 |
| Pathogenesis | .57 | .41 | .41 | .46 | .72 |

Practice Session IV

| Category | Rater combinations | | | \bar{r} | Spearman-Brown |
|-------------------------|--------------------|-----|-----|-----------|----------------|
| | A&B | B&C | A&C | | |
| Aggression | .67 | .58 | .74 | .66 | .85 |
| Frustrated Nurturance | .60 | .31 | .68 | .53 | .77 |
| Frustrated Dependency | .52 | .58 | .48 | .53 | .77 |
| Frustrated Independence | .51 | .80 | .39 | .57 | .80 |
| Frustrated Dominance | .31 | .99 | .31 | .54 | .78 |
| Absence of Affect | .00 | .00 | .37 | .12 | .29 |
| Pathogenesis | .14 | .29 | .58 | .34 | .60 |

Practice Session V

| Category | Rater combinations | | | \bar{r} | Spearman-Brown r |
|-------------------------|--------------------|-----|-----|-----------|--------------------|
| | A&B | B&C | A&C | | |
| Aggression | .64 | .57 | .61 | .61 | .82 |
| Frustrated Nurturance | .65 | .76 | .72 | .71 | .88 |
| Frustrated Dependency | .25 | .49 | .48 | .41 | .67 |
| Frustrated Independence | .62 | .56 | .62 | .60 | .81 |
| Frustrated Dominance | .34 | .54 | .42 | .43 | .69 |
| Absence of Affect | .28 | .81 | .47 | .52 | .76 |
| Pathogenesis | .72 | .81 | .73 | .75 | .90 |

Practice Session VI

| Category | Rater combinations | | | \bar{r} | Spearman-Brown r |
|-------------------------|--------------------|-----|-----|-----------|--------------------|
| | A&B | B&C | A&C | | |
| Aggression | .89 | .86 | .86 | .87 | .95 |
| Frustrated Nurturance | .74 | .60 | .66 | .66 | .86 |
| Frustrated Dependency | .71 | .82 | .68 | .73 | .89 |
| Frustrated Independence | .50 | .69 | .88 | .69 | .87 |
| Frustrated Dominance | .56 | .54 | .73 | .61 | .82 |
| Absence of Affect | .56 | .44 | .93 | .64 | .84 |
| Pathogenesis | .70 | .51 | .58 | .60 | .82 |

Practice Session VII

| Category | Rater combinations | | | \bar{r} | Spearman-Brown r |
|-------------------------|--------------------|-----|-----|-----------|--------------------|
| | A&B | B&C | A&C | | |
| Aggression | .34 | .82 | .76 | .64 | .84 |
| Frustrated Nurturance | .15 | .58 | .38 | .37 | .64 |
| Frustrated Dependency | .15 | .73 | .68 | .52 | .76 |
| Frustrated Independence | .22 | .68 | .68 | .53 | .77 |
| Frustrated Dominance | .17 | .57 | .80 | .51 | .76 |
| Absence of Affect | .05 | .48 | .42 | .32 | .58 |
| Pathogenesis | .33 | .87 | .95 | .72 | .88 |

Practice Session VIII

| Category | Rater combinations | | | \bar{r} | Spearman-Brown r |
|-------------------------|--------------------|-----|-----|-----------|--------------------|
| | A&B | B&C | A&C | | |
| Aggression | .81 | .87 | .93 | .87 | .95 |
| Frustrated Nurturance | .24 | .92 | .30 | .49 | .74 |
| Frustrated Dependency | .60 | .85 | .72 | .72 | .89 |
| Frustrated Independence | .99 | .99 | .99 | .99 | .99 |
| Frustrated Dominance | .67 | .44 | .67 | .59 | .81 |
| Absence of Affect | .56 | .81 | .74 | .70 | .88 |
| Pathogenesis | .60 | .75 | .85 | .73 | .89 |

APPENDIX J

RATER RELIABILITIES

Research Data

| Category | Rater combinations | | | \bar{r} | Spearman-Brown r |
|-------------------------|--------------------|-----|-----|-----------|--------------------|
| | A&B | B&C | A&C | | |
| Aggression | .90 | .93 | .95 | .93 | .97 |
| Frustrated Nurturance | .80 | .80 | .86 | .82 | .93 |
| Frustrated Dependency | .75 | .79 | .81 | .79 | .92 |
| Frustrated Independence | .72 | .77 | .85 | .78 | .92 |
| Frustrated Dominance | .89 | .86 | .86 | .87 | .95 |
| Absence of Affect | .84 | .83 | .91 | .86 | .95 |
| Pathogenesis | .81 | .84 | .87 | .84 | .94 |

APPENDIX K

KARON PATHOGENESIS SCORING SYSTEM

Pathogenic Themes

1. Murder.
2. Boss driving workers hard.
3. Parents make boy study or practice when he doesn't want to.
4. Mother supposedly kind, but not meeting expressed needs of child.
5. Mother showing particularity for one daughter or son over another.
6. Any kind of talking to as a form of punishment.
7. Mother warning child on things that can harm him in growing up.
8. Mother telling child he hasn't worked up to ability.
9. Going to cemetery to scare people.
10. Husband gives wife news he is leaving town (or her).
11. Spying on girlfriend, or being stood-up.
12. Monster ready to attack child or smaller animal.
13. Happy old witch and pretty young woman.
14. Man telling wife something to hurt her, e.g., took secretary to dinner.
15. Mother reading to child from Bible to teach her a lesson.
16. Woman and evil conscience; devil behind her; etc.
17. Mother feels what she has said to daughter has done little good.
18. Husband interrupts something wife is interested in.
19. Nasty remarks to a subordinate, making him or her unhappy.
20. King or leader leading nation to ruin.
21. Mother doesn't like something about daughter or son (looks, make-up, attitudes, etc.) even though daughter or son likes it.
22. Refusal of marriage bid; one is interested, one is not.
23. Mother checking up on son or daughter (study, etc.).
24. Destructive witch themes.
25. Family ruled or dominated.
26. Husband or father jealous or forbidding.
27. Woman harming child by punishment.
28. Suicide attempt to frighten someone.
29. Man pulling out of extra-marital affair and woman doesn't want to.
30. Losing interest in playing the violin. (It is assumed that Card 1 reveals parental relations even if the parent is not mentioned. The child playing the violin against his will is assumed to imply coercion.)

Neutral Themes

1. No interaction between two people, though somewhat conflicting needs.
2. One person enjoying himself.
3. No people or living things.
4. Two people, but no indication of interaction.
5. Conflict with person's own needs, not other people's.
6. Thinking about a mother who was kind to her. (It is assumed that this indicates such a fantasy--but it is at least as likely to be defensive as it is to be a reflection of reality.)
7. Wanting to join a dead person--an intrapsychic problem.

Benign Themes

1. Parents force child to do something; he is unhappy, they change.
2. Teacher consoling a problem child; helping a gifted child.
3. Guides leading animals across difficult area, etc.
4. Reunion of two people--both people pleased.
5. Person springing a pleasant surprise on another one.
6. Parent interrupts punishment of child by another parent.
7. Stopping children from activity in which they would be likely to get hurt.
8. Woman trying to console man in trouble.
9. Father and daughter consoling each other after death of mother.
10. Helping people at a disaster.
11. Son or daughter interested in advice from parents (or stories).
12. Woman working hard for benefit of her children.
13. Mother thinking about children and is happy.
14. Accepted protestation of love, or evidence of mutual love.
15. Mother admiring work of children or making something they like.
16. Man heeds woman's wish not to leave.
17. Any attempt to help or console with no ulterior motive.
18. Prevention of disaster (suicide, murder, etc.).
19. Mother enlightening child about the birds and the bees.

APPENDIX L

CONSENT FORM

I, _____, voluntarily
(name of participant)

agree to take part in a survey of attitudes sponsored by
Mr. Alan Evans, Michigan State University and by the
Ingham County Department of Social Services. I agree
to provide such information and understand that my name
will not be used in connection with this project. Results
gathered are confidential and will be used only for
scientific purposes. The purpose of the study is to
help others in the future.

(signature of participant)

Alan L. Evans, researcher

APPENDIX M

OBJECTIVE TESTS REGRESSION ANALYSIS

Statistics for Regression Analysis With Four Covariates

| Variable | <u>F</u> | <u>p</u> less than |
|-----------------------------|----------|--------------------|
| 1. Family Concept Inventory | 2.23 | .09 |
| 2. Resentment & Aggression | .65 | .63 |
| 3. Depression & Apathy | .53 | .71 |
| 4. Sense of Personal Worth | .60 | .67 |
| 5. Punish | 1.38 | .26 |
| 6. Reward | 1.40 | .26 |
| df = 4, 33 | | |

F value for test of no association between dependent and independent variables = .87; df = 24, 98.9; p < .64

Step-Wise Regression to Analyze the Contribution of Each Independent Variable--Adding Covariate Age to the Regression Equation

| Variable | <u>F</u> | <u>p</u> less than |
|-----------------------------|----------|--------------------|
| 1. Family Concept Inventory | 1.09 | .30 |
| 2. Resentment & Aggression | .10 | .76 |
| 3. Depression & Apathy | .03 | .87 |
| 4. Sense of Personal Worth | .42 | .52 |
| 5. Punish | 1.39 | .25 |
| 6. Reward | .03 | .87 |
| df = 1, 36 | | |

Overall F of covariate Age and the objective test dependent variables = .53; df = 6, 31; p < .78

Step-Wise Regression to Analyze the Contribution of Each Independent Variable--Adding Covariate Education to the Regression Equation

| Variable | <u>F</u> | <u>p</u> less than |
|-----------------------------|----------|--------------------|
| 1. Family Concept Inventory | 8.14 | .007 |
| 2. Resentment & Aggression | .72 | .40 |
| 3. Depression & Apathy | 1.29 | .26 |
| 4. Sense of Personal Worth | 1.53 | .22 |
| 5. Punish | .48 | .49 |
| 6. Reward | 1.00 | .32 |

df = 1, 35

Overall F = 1.43; df = 6, 30; p < .24

Step-Wise Regression to Analyze the Contribution of Each Independent Variable--Adding Covariate Number of Children to the Regression Equation

| Variable | <u>F</u> | <u>p</u> less than |
|-----------------------------|----------|--------------------|
| 1. Family Concept Inventory | .00 | .96 |
| 2. Resentment & Aggression | 1.54 | .22 |
| 3. Depression & Apathy | .88 | .35 |
| 4. Sense of Personal Worth | .18 | .67 |
| 5. Punish | .87 | .36 |
| 6. Reward | .85 | .36 |

df = 1, 34

Overall F = .57; df = 6, 29; p < .75.

**Step-Wise Regression to Analyze the Contribution of Each Independent
Variable--Adding Covariate Average Age of Children to
the Regression Equation**

| Variable | <u>F</u> | <u>p</u> less than |
|-----------------------------|----------|--------------------|
| 1. Family Concept Inventory | .01 | .94 |
| 2. Resentment & Aggression | .30 | .59 |
| 3. Depression & Apathy | .00 | .96 |
| 4. Sense of Personal Worth | .33 | .57 |
| 5. Punish | 2.68 | .11 |
| 6. Reward | 3.57 | .06 |

df = 1, 33

Overall F = 1.07; df = 6, 28; p < .75

APPENDIX N

ERIKSONIAN MEASURES REGRESSION ANALYSIS FOR COVARIATES

Statistics for Regression Analysis With Four Covariates

| Variable | <u>F</u> | <u>p</u> less than |
|---------------------------------|----------|--------------------|
| 1. Trust Vs. Basic Mistrust | 2.67 | .05 |
| 2. Autonomy Vs. Shame and Doubt | 3.22 | .02 |
| 3. Initiative Vs. Guilt | 1.22 | .32 |
| 4. Industry Vs. Inferiority | .86 | .50 |
| 5. Identity Vs. Role Confusion | .99 | .43 |
| 6. Intimacy Vs. Isolation | .71 | .59 |
| 7. Generativity Vs. Stagnation | .61 | .66 |

df = 4, 33

F value for test of no association between dependent and independent variables = 1.72; df = 28, 98.77; $p < .03$

Step-Wise Regression to Analyze the Contribution of Each Independent Variable--Adding the Covariate Age to the Regression Equation

| Variable | <u>F</u> | <u>p</u> less than |
|---------------------------------|----------|--------------------|
| 1. Trust Vs. Basic Mistrust | .22 | .64 |
| 2. Autonomy Vs. Shame and Doubt | .82 | .37 |
| 3. Initiative Vs. Guilt | .10 | .75 |
| 4. Industry Vs. Inferiority | 1.28 | .27 |
| 5. Identity Vs. Role Confusion | .13 | .72 |
| 6. Intimacy Vs. Isolation | .29 | .59 |
| 7. Generativity Vs. Stagnation | .06 | .81 |

df = 1, 36

Overall F = .68; df = 7, 30; $p < .69$

Step-Wise Regression to Analyze the Contribution of Each Independent Variable--Adding Covariate Education to the Regression Equation

| Variable | <u>F</u> | <u>p</u> less than |
|---------------------------------|----------|--------------------|
| 1. Trust Vs. Basic Mistrust | 1.22 | .28 |
| 2. Autonomy Vs. Shame and Doubt | 2.69 | .11 |
| 3. Initiative Vs. Guilt | .85 | .36 |
| 4. Industry Vs. Inferiority | .30 | .59 |
| 5. Identity Vs. Role Confusion | 1.18 | .29 |
| 6. Intimacy Vs. Isolation | .02 | .88 |
| 7. Generativity Vs. Stagnation | 1.23 | .28 |
| df = 1, 35 | | |

Overall F = 2.55; df = 7, 29; p < .04

Step-Wise Regression to Analyze the Contribution of Each Independent Variable--Adding Covariate Number of Children to the Regression Equation

| Variable | <u>F</u> | <u>p</u> less than |
|---------------------------------|----------|--------------------|
| 1. Trust Vs. Basic Mistrust | 4.43 | .04 |
| 2. Autonomy Vs. Shame and Doubt | 8.91 | .01 |
| 3. Initiative Vs. Guilt | 3.02 | .09 |
| 4. Industry Vs. Inferiority | 1.96 | .17 |
| 5. Identity Vs. Role Confusion | 2.70 | .11 |
| 6. Intimacy Vs. Isolation | .04 | .85 |
| 7. Generativity Vs. Stagnation | .47 | .50 |
| df = 1, 34 | | |

Overall F = 2.22; df = 7, 28; p < .06

Step-Wise Regression to Analyze the Contribution of Each Independent
Variable--Adding Average Age of Children to
the Regression Equation

| Variable | <u>F</u> | <u>p</u> less than |
|---------------------------------|----------|--------------------|
| 1. Trust Vs. Basic Mistrust | 4.11 | .05 |
| 2. Autonomy Vs. Shame and Doubt | .01 | .93 |
| 3. Initiative Vs. Guilt | .84 | .37 |
| 4. Industry Vs. Inferiority | .00 | .95 |
| 5. Identity Vs. Role Confusion | .00 | .95 |
| 6. Intimacy Vs. Isolation | 2.50 | .12 |
| 7. Generativity Vs. Stagnation | .72 | .40 |

df = 1, 33

Overall F = 1.71; df = 7, 27; p < .15

APPENDIX 0

THEMATIC APPERCEPTION TEST REGRESSION ANALYSIS

Statistics for Regression Analysis With Four Covariates

| Variable | <u>F</u> | <u>p</u> less than |
|----------------------------|----------|--------------------|
| 1. Aggression | .62 | .65 |
| 2. Pathogenesis | .45 | .77 |
| 3. Nurturance | .56 | .69 |
| 4. Absence of Affect | .78 | .55 |
| 5. Frustrated Nurturance | .32 | .87 |
| 6. Frustrated Dominance | .24 | .91 |
| 7. Frustrated Independence | 4.52 | .01 |

df = 4, 32

F value for test of no association between dependent and independent
variables = 1.20; df = 28, 95.17; $p < .25$

Step-Wise Regression to Analyze the Contribution of Each Independent Variable--Adding the Covariate Age to the Regression Equation

| Variable | <u>F</u> | <u>p</u> less than |
|----------------------------|----------|--------------------|
| 1. Aggression | .01 | .93 |
| 2. Pathogenesis | .85 | .36 |
| 3. Nurturance | .44 | .51 |
| 4. Absence of Affect | .03 | .87 |
| 5. Frustrated Nurturance | .15 | .70 |
| 6. Frustrated Dominance | .05 | .83 |
| 7. Frustrated Independence | 2.18 | .15 |

df = 1, 35

Overall F = .68; df = 7, 29; $p < .99$

Step-Wise Regression to Analyze the Contribution of Each Independent Variable--Adding Covariate Education to the Regression Equation

| Variable | <u>F</u> | <u>p</u> less than |
|----------------------------|----------|--------------------|
| 1. Aggression | 1.02 | .32 |
| 2. Pathogenesis | .34 | .56 |
| 3. Nurturance | 1.77 | .19 |
| 4. Absence of Affect | .71 | .40 |
| 5. Frustrated Nurturance | .12 | .73 |
| 6. Frustrated Dominance | .01 | .92 |
| 7. Frustrated Independence | 15.70 | .00 |
| df = 1, 34 | | |

Overall F = 3.08; df = 7, 28; p < .02

Step-Wise Regression to Analyze the Contribution of Each Independent Variable--Adding Covariate Number of Children to the Regression Equation

| Variable | <u>F</u> | <u>p</u> less than |
|----------------------------|----------|--------------------|
| 1. Aggression | .04 | .85 |
| 2. Pathogenesis | .55 | .46 |
| 3. Nurturance | .09 | .77 |
| 4. Absence of Affect | 1.64 | .21 |
| 5. Frustrated Nurturance | .10 | .75 |
| 6. Frustrated Dominance | .41 | .53 |
| 7. Frustrated Independence | .21 | .65 |
| df = 1, 33 | | |

Overall F = .73; df = 7, 27; p < .65

Step-Wise Regression to Analyze the Contribution of Each Independent
Variable--Adding Average Age of Children to
the Regression Equation

| Variable | <u>F</u> | <u>p</u> less than |
|----------------------------|----------|--------------------|
| 1. Aggression | 1.42 | .24 |
| 2. Pathogenesis | .12 | .73 |
| 3. Nurturance | .06 | .81 |
| 4. Absence of Affect | .75 | .39 |
| 5. Frustrated Nurturance | .90 | .35 |
| 6. Frustrated Dominance | .50 | .48 |
| 7. Frustrated Independence | .05 | .83 |

df = 1, 32

Overall F = .81; df = 7, 26; p < .60

APPENDIX P

CHI-SQUARE TEST OF SIGNIFICANCE BETWEEN THE VARIABLES OF MARITAL STATUS AND ABUSE STATUS

| | Married | Separated | Divorced | Single | Row Total |
|--------------|---------|-----------|----------|--------|--------------|
| Non-abusive | 2 | 8 | 6 | 4 | 20 |
| Abusive | 5 | 3 | 10 | 2 | 20 |
| Column Total | 7 | 11 | 16 | 6 | 40 |

$$\chi^2 = 5.23; df = 3; p < .16$$

APPENDIX Q

ANOVA WITH MARITAL STATUS AS THE INDEPENDENT VARIABLE AND OBJECTIVE TEST SCORES
AS THE DEPENDENT VARIABLES

Means

| | Family Concept | Resentment & Aggression | Depression and Apathy | Sense of Personal Worth | Reward | Punish |
|-----------|-------------------|----------------------------|--------------------------|----------------------------|--------|--------|
| Married | 115.86 | 8.57 | 11.29 | 8.86 | 44.29 | 28.86 |
| Separated | 115.91 | 7.09 | 10.36 | 9.55 | 36.73 | 32.09 |
| Divorced | 116.25 | 9.19 | 11.94 | 8.50 | 36.25 | 33.06 |
| Single | 112.67 | 11.67 | 16.50 | 8.17 | 38.00 | 38.83 |

ANOVA

| Variable | Hypothesis mean square | Univariate F | p less than |
|-----------------------------|------------------------|--------------|-------------|
| 1. Family Concept Inventory | 19.93 | .02 | .99 |
| 2. Resentment & Aggression | 27.99 | 1.97 | .14 |
| 3. Depression & Apathy | 51.45 | 1.26 | .30 |
| 4. Sense of Personal Worth | 3.33 | .33 | .81 |
| 5. Reward | 114.43 | .54 | .66 |
| 6. Punish | 111.08 | .95 | .43 |

df = 3, 36

APPENDIX R

ANOVA WITH MARITAL STATUS AS THE INDEPENDENT VARIABLE AND THE ERIKSONIAN MEASURES
AS THE DEPENDENT VARIABLES

Means

| | Trust vs. Mistrust | Autonomy vs. Shame and Doubt | Initiative vs. Guilt | Industry vs. Inferiority | Identity vs. Role Confusion | Intimacy vs. Isolation | Generativity vs. Stagnation |
|-----------|-----------------------|------------------------------------|-------------------------|--------------------------------|-----------------------------------|------------------------------|-----------------------------------|
| Married | 11.71 | 11.43 | 5.86 | 12.71 | 1.14 | 11.29 | 14.29 |
| Separated | 13.82 | 11.64 | 10.73 | 14.73 | 4.09 | 13.73 | 14.27 |
| Divorced | 8.00 | 7.38 | 9.81 | 7.81 | -.25 | 8.44 | 12.31 |
| Single | 1.67 | 9.00 | 3.00 | 8.33 | .17 | 9.83 | 9.17 |

ANOVA

| Variable | Hypothesis mean square | Univariate F | p less than |
|---------------------------------|------------------------|----------------|---------------|
| 1. Trust vs. Mistrust | 214.00 | 2.61 | .07 |
| 2. Autonomy vs. Shame and Doubt | 50.00 | 1.20 | .32 |
| 3. Initiative vs. Guilt | 103.87 | 1.76 | .17 |
| 4. Industry vs. Inferiority | 124.57 | 1.53 | .22 |
| 5. Identity vs. Role Confusion | 43.97 | .48 | .70 |
| 6. Intimacy vs. Isolation | 63.07 | .82 | .49 |
| 7. Generativity vs. Stagnation | 40.70 | .62 | .61 |

df = 3, 36

APPENDIX S

ANOVA WITH MARITAL STATUS AS THE INDEPENDENT VARIABLE AND THEMATIC APPERCEPTION TEST SCORES
AS THE DEPENDENT VARIABLES

Means

| | Aggression | Nurturance | Frustrated Nurturance | Pathogenesis | Absence of Affect | Frustrated Dominance | Frustrated Independence |
|-----------|------------|------------|--------------------------|--------------|----------------------|-------------------------|----------------------------|
| Married | 8.59 | 12.07 | 5.59 | .76 | 8.44 | 2.12 | 3.13 |
| Separated | 4.25 | 4.12 | 3.53 | .77 | 6.34 | 2.30 | 3.80 |
| Divorced | 6.67 | 5.92 | 5.98 | .78 | 8.33 | 3.84 | 2.85 |
| Single | 5.57 | 4.17 | 5.32 | .79 | 4.00 | 1.22 | 2.83 |

ANOVA

| Variable | Hypothesis mean square | Univariate F | p less than |
|----------------------------|------------------------|--------------|-------------|
| 1. Aggression | 58.86 | 1.46 | .24 |
| 2. Nurturance | 59.01 | 1.28 | .30 |
| 3. Frustrated Nurturance | 7.16 | .26 | .85 |
| 4. Pathogenesis | 1.28 | .03 | .99 |
| 5. Absence of Affect | 38.42 | .71 | .55 |
| 6. Frustrated Dominance | 2.63 | .31 | .82 |
| 7. Frustrated Independence | 4.82 | .47 | .70 |

df = 3, 36

APPENDIX T

CONTROL GROUP ANOVA WITH RACE AS THE INDEPENDENT VARIABLE AND OBJECTIVE TEST SCORES
AS THE DEPENDENT VARIABLES

Means

| | Family Concept | Resentment and Aggression | Depression and Apathy | Sense of Personal Worth | Reward | Punish |
|-------|-------------------|------------------------------|--------------------------|----------------------------|--------|--------|
| White | 134.17 | 6.42 | 8.17 | 11.00 | 38.25 | 30.00 |
| Black | 120.13 | 7.75 | 11.25 | 10.13 | 40.13 | 39.00 |

ANOVA

| Variable | Hypothesis mean square | Univariate $F_{\underline{\quad}}$ | p less than |
|------------------------------|------------------------|------------------------------------|---------------|
| 1. Family Concept Inventory | 946.41 | 1.75 | .20 |
| 2. Resentment and Aggression | 8.53 | .77 | .39 |
| 3. Depression and Apathy | 45.63 | 1.68 | .21 |
| 4. Sense of Personal Worth | 3.68 | .99 | .33 |
| 5. Reward | 16.88 | .07 | .80 |
| 6. Punish | 388.80 | 3.80 | .07 |

$df = 1, 18$

APPENDIX U

CONTROL GROUP ANOVA WITH RACE AS THE INDEPENDENT VARIABLE AND THE ERIKSONIAN MEASURES
AS THE DEPENDENT VARIABLES

Means

| | Trust vs. Mistrust | Autonomy vs. Shame and Doubt | Initiative vs. Guilt | Industry vs. Inferiority | Identity vs. Role Confusion | Intimacy vs. Isolation | Generativity vs. Stagnation |
|-------|-----------------------|------------------------------------|-------------------------|--------------------------------|-----------------------------------|------------------------------|-----------------------------------|
| White | 14.25 | 11.00 | 12.67 | 15.50 | 3.50 | 16.67 | 16.25 |
| Black | 11.00 | 10.75 | 11.00 | 13.88 | 7.50 | 12.50 | 11.88 |

ANOVA

| Variable | Hypothesis mean square | Univariate F | p less than |
|---------------------------------|------------------------|----------------|-------------|
| 1. Trust vs. Basic Mistrust | 50.70 | .86 | .36 |
| 2. Autonomy vs. Shame and Doubt | .30 | .01 | .93 |
| 3. Initiative vs. Guilt | 13.33 | .37 | .55 |
| 4. Industry vs. Inferiority | 12.68 | .19 | .67 |
| 5. Identity vs. Role Confusion | 76.80 | .91 | .35 |
| 6. Intimacy vs. Isolation | 83.33 | 2.08 | .17 |
| 7. Generativity vs. Stagnation | 91.88 | 1.81 | .20 |

df = 1, 18

APPENDIX V

CONTROL GROUP ANOVA WITH RACE AS THE INDEPENDENT VARIABLE AND THE THEMATIC APPERCEPTION
TEST SCORES AS THE DEPENDENT VARIABLES

Means

| | Aggression | Nurturance | Frustrated Nurturance | Pathogenesis | Absence of Affect | Frustrated Dominance | Frustrated Independence |
|-------|------------|------------|--------------------------|--------------|----------------------|-------------------------|----------------------------|
| White | 11.00 | 12.08 | 10.25 | .72 | 10.58 | 4.25 | 5.50 |
| Black | 11.75 | 8.50 | 9.25 | .74 | 12.63 | 2.75 | 2.00 |

ANOVA

| Variable | Hypothesis mean square | Univariate <u>F</u> | <u>p</u> less than |
|----------------------------|------------------------|---------------------|--------------------|
| 1. Aggression | 2.70 | .11 | .75 |
| 2. Nurturance | 61.63 | 3.92 | .06 |
| 3. Frustrated Nurturance | 4.80 | .22 | .64 |
| 4. Pathogenesis | .21 | .10 | .75 |
| 5. Absence of Affect | 20.01 | .61 | .45 |
| 6. Frustrated Dominance | 10.80 | 1.62 | .22 |
| 7. Frustrated Independence | 58.80 | 5.43 | .03 |

APPENDIX W

OBJECTIVE TESTS MANCOVA

Factor Levels: Abusive Client and Abusive Non-Client

| Variable | Non-client mean | Client mean | <u>F</u> | <u>p</u> less than |
|------------------------------|--------------------|----------------|----------|-----------------------|
| 1. Family Concept Inventory | 98.10 | 107.00 | .00 | .96 |
| 2. Resentment and Aggression | 10.40 | 11.20 | .28 | .60 |
| 3. Depression and Apathy | 16.40 | 13.10 | 1.01 | .32 |
| 4. Sense of Personal Worth | 6.60 | 7.30 | .09 | .76 |
| 5. Punish | 34.50 | 39.70 | .46 | .50 |
| 6. Reward | 31.50 | 33.00 | .75 | .39 |
| df = 1, 33 | | | | |

APPENDIX X

ERIKSONIAN MEASURES MANCOVA

Factor Levels: Abusive Client and Abusive Non-Client

| Variable | Non-client mean | Client mean | <u>F</u> | <u>p</u> less than |
|---------------------------------|--------------------|----------------|----------|-----------------------|
| 1. Trust Vs. Basic Mistrust | 3.40 | 7.90 | 1.14 | .29 |
| 2. Autonomy Vs. Shame and Doubt | 8.40 | 7.80 | .02 | .88 |
| 3. Initiative Vs. Guilt | 2.00 | 7.40 | 2.65 | .11 |
| 4. Industry Vs. Inferiority | 2.70 | 10.20 | 4.07 | .05 |
| 5. Identity Vs. Role Confusion | -2.40 | -2.80 | .23 | .63 |
| 6. Intimacy Vs. Isolation | 5.60 | 6.80 | .03 | .86 |
| 7. Generativity Vs. Stagnation | 9.30 | 12.60 | .40 | .53 |

df = 1, 33

APPENDIX Y

THEMATIC APPERCEPTION TEST MANCOVA

Factor Levels: Abusive Client and Abusive Non-Client

| Variables | Non-client mean | Client mean | <u>F</u> | p less than |
|----------------------------|--------------------|----------------|----------|----------------|
| 1. Aggression | 13.67 | 18.10 | 1.76 | .19 |
| 2. Pathogenesis | .83 | .83 | .00 | .98 |
| 3. Nurturance | 11.22 | 9.60 | .66 | .42 |
| 4. Absence of Affect | 14.88 | 7.70 | 2.58 | .12 |
| 5. Frustrated Nurturance | 9.22 | 13.80 | 3.41 | .07 |
| 6. Frustrated Dominance | 3.11 | 3.00 | .04 | .85 |
| 7. Frustrated Independence | 1.78 | 3.80 | .30 | .59 |

df = 1, 36

APPENDIX Z

UNSTANDARDIZED DISCRIMINANT FUNCTION COEFFICIENTS

| | |
|---------------------------------|-------|
| Age of Mother | -.808 |
| Education of Mother | -.585 |
| Number of Children | -.513 |
| Average Age of Children | .381 |
| Family Concept Inventory | .163 |
| Resentment and Aggression | -.139 |
| Depression and Apathy | .241 |
| Sense of Personal Worth | .257 |
| Reward | -.171 |
| Punish | .121 |
| Trust versus Basic Mistrust | .205 |
| Autonomy versus Shame and Doubt | .109 |
| Initiative versus Guilt | .361 |
| Industry versus Inferiority | -.246 |
| Identity versus Role Confusion | -.132 |
| Intimacy versus Isolation | .164 |
| Generativity versus Stagnation | -.121 |
| TAT Aggression | -.184 |
| Nurturance | -.206 |
| Pathogenesis | 1.430 |
| Absence of Affect | -.546 |
| Frustrated Dominance | -.134 |
| Frustrated Independence | .231 |
| Constant | 1.219 |

Centroids of Groups in Reduced Space

| | |
|-----------------|-------|
| Non-Abuse Group | 2.15 |
| Abuse Group | -2.15 |

APPENDIX AA

ALL SUBJECTS CORRELATIONAL MATRIX

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|----------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1. Age of Mother | | -27 | 70 | 82 | -10 | 00 | -07 | -02 | -18 | -02 | -13 | 10 | 21 | -02 | 13 | -01 | -01 | -11 | 06 | -09 | -04 | 05 | -20 | |
| 2. Education of Mother | -27 | | -37 | -41 | 30 | 02 | -08 | 04 | 17 | -15 | 11 | 21 | 05 | -02 | -24 | -11 | 15 | 29 | 20 | 17 | 18 | -22 | -05 | 54 |
| 3. Number of Children | 70 | -37 | | 67 | -17 | -09 | -07 | -04 | -06 | 11 | 12 | 15 | 16 | 20 | 17 | 08 | 01 | -08 | -07 | -05 | -02 | 19 | -04 | -23 |
| 4. Average Age of Children | 82 | -41 | 67 | | -12 | -01 | -07 | -03 | -29 | 18 | -15 | -07 | 04 | 20 | 08 | 03 | -09 | 00 | -13 | 06 | -09 | 12 | -02 | -26 |
| 5. Family Concept Inventory | -10 | 30 | -17 | -12 | | -58 | -61 | 60 | 17 | -03 | 59 | 18 | 64 | 46 | 39 | 50 | 48 | 14 | 26 | -21 | -04 | -18 | -09 | 27 |
| 6. Resentment and Aggression | 00 | 02 | -09 | -01 | -58 | | 78 | -53 | -24 | 13 | -66 | -26 | -56 | -51 | -57 | -52 | -60 | 31 | -07 | 40 | -03 | -11 | 21 | -24 |
| 7. Depression and Apathy | -07 | -08 | -07 | -07 | -61 | 78 | | -61 | -24 | 09 | -83 | -26 | -67 | -73 | -66 | -61 | -59 | 17 | -14 | 32 | 09 | -08 | 34 | -11 |
| 8. Sense of Personal Worth | -02 | 04 | -04 | -03 | 60 | -53 | -61 | | 26 | -01 | 59 | 21 | 71 | 59 | 52 | 70 | 54 | -09 | 30 | -11 | -19 | -02 | 14 | 20 |
| 9. Reward | -18 | 17 | -06 | -29 | 17 | -24 | -24 | 26 | | -04 | 35 | 06 | 32 | 23 | 04 | 31 | 33 | 14 | 22 | 33 | -02 | -35 | 14 | 28 |
| 10. Punish | -02 | -15 | 11 | 18 | -03 | 13 | 09 | -01 | -04 | | -08 | 08 | 10 | 19 | 22 | -06 | -14 | 18 | 01 | 10 | -14 | -26 | -14 | -04 |
| 11. Trust vs. Basic Mistrust | -02 | 11 | 12 | -15 | 59 | -66 | -83 | 59 | 35 | -08 | | 34 | 70 | 71 | 67 | 62 | 59 | -01 | 27 | -25 | -15 | -01 | -20 | 12 |
| 12. Autonomy vs. Shame and Doubt | -13 | 21 | 15 | -07 | 18 | -26 | -26 | 21 | 06 | 08 | 34 | | 16 | 29 | 51 | 09 | 24 | -20 | 07 | -18 | 06 | 08 | -08 | 30 |
| 13. Initiative vs. Guilt | 10 | 05 | 16 | 04 | 64 | -56 | -67 | 71 | 32 | 10 | 70 | 16 | | 61 | 52 | 68 | 58 | 08 | 11 | -12 | -17 | -06 | 04 | 21 |
| 14. Industry vs. Inferiority | 21 | -02 | 20 | 20 | 46 | -51 | -73 | 59 | 23 | 19 | 71 | 29 | 61 | | 66 | 61 | 40 | -04 | 17 | -01 | -23 | -15 | -05 | 15 |
| 15. Identity vs. Role Confusion | -02 | -24 | 17 | 08 | 39 | -57 | -66 | 52 | 04 | 22 | 67 | 51 | 52 | 66 | | 53 | 41 | -19 | 02 | -26 | -11 | 00 | -26 | -09 |
| 16. Intimacy vs. Isolation | 13 | -11 | 08 | 03 | 50 | -52 | -61 | 70 | 31 | -06 | 62 | 09 | 68 | 61 | 53 | | 66 | 01 | 36 | -08 | -10 | -12 | 21 | 05 |
| 17. Generativity vs. Stagnation | -01 | 15 | 01 | -09 | 48 | -60 | -59 | 54 | 33 | -14 | 59 | 24 | 58 | 40 | 41 | 66 | | 02 | 45 | -24 | -02 | -14 | 08 | 32 |
| 18. TAT Aggression | -01 | 29 | -08 | 00 | 14 | 31 | 17 | -09 | 14 | 18 | -01 | -20 | 08 | -04 | -19 | 01 | 02 | | 25 | 52 | 14 | -35 | 22 | 07 |
| 19. Nurture | -11 | 20 | -07 | -13 | 26 | -07 | -14 | 30 | 22 | 01 | 27 | 07 | 11 | 17 | 02 | 36 | 45 | 25 | | -01 | -41 | -29 | 04 | 04 |
| 20. Frustrated Nurture | 06 | 17 | -05 | 06 | -21 | 40 | 32 | -11 | 33 | 10 | -25 | -18 | -12 | -01 | -26 | -08 | -24 | 52 | -01 | | 36 | -46 | 38 | 25 |
| 21. Pathogenesis | -09 | 18 | -02 | -09 | -04 | -03 | 09 | -19 | -02 | -14 | -15 | 06 | -17 | -23 | -11 | -10 | -02 | 14 | -41 | 36 | | 09 | 32 | 23 |
| 22. Absence of Affect | -04 | -21 | 19 | 12 | -18 | -11 | -08 | -02 | -35 | -26 | -01 | 08 | -06 | -15 | 00 | -12 | -14 | -35 | -29 | -46 | 09 | | -17 | -28 |
| 23. Frustrated Dominance | 05 | -05 | -04 | -02 | -09 | 21 | 34 | 14 | 14 | -14 | -20 | -08 | 04 | -05 | -26 | 21 | 08 | 22 | 04 | 38 | 32 | -17 | | 30 |
| 24. Frustrated Independence | -20 | 54 | -23 | -26 | 27 | -24 | -11 | 20 | 28 | -04 | 12 | 30 | 21 | 15 | -09 | 05 | 32 | 08 | 04 | 25 | 23 | -28 | 30 | |

APPENDIX B8
ABUSIVE MOTHERS CORRELATIONAL MATRIX

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|----------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1. Age of Mother | | -31 | 74 | 84 | 01 | 00 | -09 | -05 | -10 | 30 | -15 | 23 | -05 | 40 | 31 | -11 | 06 | -27 | -24 | -03 | -11 | -23 | -11 | 03 |
| 2. Education of Mother | -31 | | -39 | -44 | 42 | -08 | -12 | 31 | 25 | -13 | 19 | 19 | 30 | -11 | -25 | -07 | 29 | 26 | 25 | 15 | 19 | -25 | -23 | 45 |
| 3. Number of Children | 74 | -39 | | 70 | 14 | -37 | -25 | 17 | -08 | 19 | 07 | 37 | 12 | 40 | 38 | 04 | 21 | -29 | -09 | -26 | -02 | 17 | -01 | 00 |
| 4. Average Age of Children | 84 | -44 | 70 | | -10 | -05 | 00 | -09 | -24 | 33 | -33 | 22 | -15 | 25 | 33 | -13 | -05 | -23 | -32 | 12 | -08 | -04 | -05 | 01 |
| 5. Family Concept Inventory | 01 | 42 | 14 | -10 | | -56 | -59 | 55 | 45 | -15 | 67 | 06 | 77 | 39 | 29 | 55 | 74 | 44 | 35 | -15 | 08 | -22 | 03 | 17 |
| 6. Resentment and Aggression | 00 | -08 | -37 | -05 | -56 | | 80 | -28 | -22 | 31 | -68 | -18 | -40 | -28 | -60 | -37 | -60 | 14 | -08 | 45 | -22 | -18 | 41 | 20 |
| 7. Depression and Apathy | -09 | -12 | -25 | -00 | -59 | 80 | | -51 | -25 | 34 | -82 | -17 | -50 | -60 | -75 | -51 | -62 | 13 | -16 | 37 | 01 | -02 | 42 | 25 |
| 8. Sense of Personal Worth | -05 | 31 | 17 | -09 | 55 | -28 | -51 | | 28 | -15 | 50 | 08 | 66 | 47 | 40 | 60 | 63 | 31 | 53 | 04 | 10 | -17 | 14 | 19 |
| 9. Reward | -10 | 25 | -08 | -24 | 45 | -22 | -25 | 28 | | -17 | 42 | -13 | 57 | 09 | -06 | 39 | 48 | 36 | 44 | 26 | -04 | -43 | 02 | 13 |
| 10. Punish | 30 | -13 | 19 | 33 | -15 | 31 | 34 | -15 | -17 | | -37 | -37 | -04 | 12 | -26 | -23 | -37 | 02 | -13 | 19 | -18 | -39 | 11 | 18 |
| 11. Trust vs. Basic Mistrust | -15 | 19 | 07 | -33 | 67 | -68 | -82 | 50 | 42 | -37 | | 08 | 57 | 60 | 56 | 52 | 64 | 18 | 41 | -34 | -11 | -10 | -24 | -18 |
| 12. Autonomy vs. Shame and Doubt | 23 | 19 | 37 | 22 | 06 | -18 | -17 | 08 | -13 | -37 | 08 | | -14 | 18 | 31 | -14 | 05 | -25 | 03 | -14 | 14 | 25 | -03 | -03 |
| 13. Initiative vs. Guilt | -05 | 30 | 12 | -15 | 77 | -40 | -50 | 66 | 57 | -04 | 56 | -14 | | 41 | 24 | 53 | 63 | 49 | 17 | 13 | -09 | -33 | 28 | 37 |
| 14. Industry vs. Inferiority | 40 | -11 | 40 | 25 | 39 | -28 | -60 | 47 | 09 | 12 | 60 | 18 | 41 | | 66 | 41 | 39 | 12 | 25 | -01 | -22 | -39 | 02 | -05 |
| 15. Identity vs. Role Confusion | 31 | -25 | 38 | 33 | 29 | -60 | -75 | 40 | -06 | -26 | 56 | 31 | 24 | 66 | | 43 | 37 | -19 | 03 | -29 | -04 | -06 | -19 | -36 |
| 16. Intimacy vs. Isolation | -11 | -07 | 04 | -13 | 55 | -37 | -51 | 60 | 39 | -23 | 52 | -14 | 53 | 41 | 43 | | 70 | 46 | 52 | 00 | 01 | -22 | 30 | -14 |
| 17. Generativity vs. Stagnation | 06 | 29 | 21 | -05 | 74 | -60 | -62 | 63 | 48 | -37 | 64 | 05 | 63 | 39 | 37 | 70 | | 40 | 54 | -04 | 04 | -20 | 02 | 18 |
| 18. TAT Aggression | -27 | 26 | -29 | -23 | 44 | 14 | 13 | 31 | 36 | 02 | 18 | -25 | 49 | 12 | -19 | 46 | 40 | | 30 | 59 | 07 | -44 | 59 | 55 |
| 19. Nurture | -24 | 25 | -09 | -32 | 35 | -08 | -16 | 53 | 44 | -13 | 41 | 03 | 17 | 25 | 03 | 52 | 54 | 30 | | -02 | -59 | -26 | 07 | -14 |
| 20. Frustrated Nurture | -03 | 15 | -26 | 12 | -15 | 45 | 37 | 04 | 26 | 19 | -34 | -14 | 13 | -01 | -29 | 00 | -04 | 59 | -02 | | 24 | -52 | 41 | 65 |
| 21. Pathogenesis | -11 | 19 | -02 | -08 | 08 | -22 | 01 | -10 | -04 | -18 | -11 | 14 | -09 | -22 | -04 | 01 | 04 | 07 | -59 | 24 | | 12 | 28 | 34 |
| 22. Absence of Affect | -23 | -25 | 17 | -04 | -22 | -18 | -02 | -17 | -43 | -39 | -10 | 25 | -33 | -39 | -06 | -22 | -20 | -44 | -26 | -52 | 12 | | -14 | -28 |
| 23. Frustrated Dominance | -11 | -23 | -01 | -05 | 03 | 41 | 42 | 14 | 02 | 11 | -24 | -03 | 28 | 02 | -19 | 30 | 02 | 59 | 07 | 41 | 28 | -14 | | 35 |
| 24. Frustrated Independence | 03 | 45 | 00 | 01 | 17 | 20 | 25 | 19 | 13 | 18 | -18 | -03 | 37 | -05 | -36 | -14 | 18 | 55 | -14 | 65 | 34 | -28 | | 35 |

APPENDIX CC

NON-ABUSE GROUP CORRELATIONAL MATRIX

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|----------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1. Age of Mother | -22 | 68 | 81 | -33 | 10 | 00 | -17 | -23 | -26 | 00 | -43 | 18 | 04 | -29 | 29 | -10 | 29 | 02 | 15 | -25 | 16 | 16 | 16 | -34 |
| 2. Education of Mother | -22 | -37 | -33 | 55 | -17 | -32 | 17 | 15 | -14 | 30 | 36 | 07 | 33 | -08 | 11 | 15 | 20 | 19 | 12 | 31 | -19 | 17 | 17 | 72 |
| 3. Number of Children | 68 | -37 | 65 | -57 | 15 | 12 | -40 | -06 | 04 | 17 | -04 | 22 | 05 | 02 | 11 | -20 | 15 | -06 | 14 | -02 | 23 | -08 | -38 | -38 |
| 4. Average Age of Children | 81 | -33 | 65 | -36 | 23 | 00 | -30 | -36 | 04 | -14 | -44 | 08 | 02 | -26 | -01 | -23 | 43 | 16 | 08 | -17 | 33 | -03 | -49 | -49 |
| 5. Family Concept Inventory | -33 | 55 | -57 | -36 | -32 | -42 | 32 | -14 | 05 | 25 | 14 | 16 | 21 | 23 | 03 | 00 | 28 | 13 | -15 | -37 | -19 | -42 | 26 | 26 |
| 6. Resentment and Aggression | 10 | -17 | 15 | 23 | -32 | 62 | -41 | -26 | 05 | -45 | -18 | -48 | -46 | -33 | -34 | -55 | 15 | -06 | 26 | 27 | -02 | 19 | -39 | -39 |
| 7. Depression and Apathy | 00 | -32 | 12 | 00 | -42 | 62 | -48 | -22 | -14 | -76 | -23 | -76 | -75 | -44 | -51 | -49 | -16 | -14 | 15 | 12 | -19 | 43 | -24 | -24 |
| 8. Sense of Personal Worth | -17 | 17 | -40 | -30 | 32 | -41 | -48 | 30 | 09 | 45 | 14 | 48 | 42 | 38 | 50 | 35 | -06 | -17 | -07 | -13 | 23 | 03 | 04 | 04 |
| 9. Reward | -23 | 15 | -06 | -36 | -14 | -26 | -22 | 30 | 06 | 29 | 20 | 08 | 34 | 08 | 26 | 18 | 00 | -09 | 44 | 33 | -29 | 25 | 36 | 36 |
| 10. Punish | -26 | -14 | 04 | 04 | 05 | 05 | -14 | 09 | 06 | 21 | 54 | 24 | 23 | 65 | 06 | 09 | 46 | 27 | 02 | -12 | -09 | -43 | -19 | -19 |
| 11. Trust vs. Basic Mistrust | 00 | 30 | 17 | -14 | 25 | -45 | -76 | 45 | 29 | 21 | 58 | 76 | 72 | 69 | 57 | 43 | 12 | -06 | 00 | 03 | 13 | -30 | 24 | 24 |
| 12. Autonomy vs. Shame and Doubt | -43 | 36 | -04 | -44 | 14 | -18 | -23 | 14 | 20 | 54 | 58 | 36 | 27 | 63 | 12 | 38 | 05 | 17 | -15 | 17 | -16 | -19 | 46 | 46 |
| 13. Initiative vs. Guilt | 18 | 07 | 22 | 08 | 16 | -48 | -76 | 48 | 08 | 24 | 76 | 36 | 65 | 62 | 67 | 43 | 01 | -03 | -31 | -32 | 41 | -47 | -06 | -06 |
| 14. Industry vs. Inferiority | 04 | 33 | 05 | 02 | 21 | -46 | -75 | 42 | 34 | 23 | 72 | 27 | 65 | 52 | 62 | 27 | 22 | 04 | 18 | 04 | 12 | -26 | 14 | 14 |
| 15. Identity vs. Role Confusion | -29 | -08 | 02 | -26 | 23 | -33 | -44 | 38 | 08 | 65 | 69 | 63 | 62 | 52 | 41 | 34 | 13 | 00 | -13 | -21 | 07 | -48 | -10 | -10 |
| 16. Intimacy vs. Isolation | 29 | 11 | 11 | -01 | 03 | -34 | -51 | 50 | 26 | 06 | 57 | 12 | 67 | 62 | 41 | 57 | -08 | 12 | 04 | -30 | -02 | 01 | -01 | -01 |
| 17. Generativity vs. Stagnation | -10 | 15 | -20 | -23 | 00 | -55 | -49 | 35 | 18 | 09 | 43 | 38 | 43 | 27 | 34 | 57 | -28 | 31 | -40 | -09 | -05 | 11 | 38 | 38 |
| 18. TAT Aggression | 29 | 20 | 15 | 43 | 28 | 15 | -16 | -06 | 00 | 46 | 12 | 05 | 01 | 22 | 13 | -08 | -28 | 23 | 37 | 05 | -23 | -15 | -11 | -11 |
| 19. Nurture | 02 | 19 | -06 | 16 | 13 | -06 | -14 | -17 | -09 | 27 | -06 | 17 | -03 | 04 | 00 | 12 | 31 | 23 | 03 | 03 | -21 | -41 | -02 | 27 |
| 20. Frustrated Nurture | 15 | 12 | 14 | 08 | -15 | 26 | 15 | -07 | 44 | 02 | 00 | -15 | -31 | 18 | -13 | 04 | -40 | 37 | 03 | 42 | -38 | 42 | 08 | 08 |
| 21. Pathogenesis | -25 | 31 | -02 | -17 | -37 | 27 | 12 | -13 | 33 | -12 | 03 | 17 | -32 | 04 | -21 | -30 | -09 | -05 | -21 | 42 | 08 | 49 | 33 | 33 |
| 22. Absence of Affect | 16 | -19 | 23 | 33 | -19 | -02 | -19 | 23 | -29 | -09 | 13 | -16 | 41 | 12 | 07 | -02 | -05 | -23 | -41 | -38 | 08 | -23 | -36 | -36 |
| 23. Frustrated Dominance | 16 | 17 | -08 | -03 | -42 | 19 | 43 | 03 | 25 | -43 | -30 | -19 | -47 | -26 | -48 | 01 | 11 | -15 | -02 | 42 | 49 | -23 | 26 | 26 |
| 24. Frustrated Independence | -34 | 72 | -38 | -49 | 26 | -39 | -24 | 04 | 36 | -19 | 24 | 46 | -06 | 14 | -10 | -01 | 38 | -11 | 27 | 08 | 33 | -36 | 26 | 26 |

APPENDIX D0
ABUSIVE AND NON-ABUSIVE SUBJECTS' SCORES ON DEPENDENT MEASURES AND COVARIATES

| Subject Number | Family Concept Inventory | Resentment and Aggression | Depression and Apathy | Sense of Personal Worth | Reward | Punish | Trust vs. Basic Mistrust | Autonomy vs. Shame and Doubt | Initiative vs. Guilt | Industry vs. Inferiority | Identity vs. Role Confusion | Intimacy vs. Isolation | Generativity vs. Stagnation | TAT Aggression | Nurturance | Frustrated Nurturance | Pathogenesis | Absence of Affect | Frustrated Dominance | Frustrated Independence | Age in Months | Years of Education | Race ^a | Number of Children | Marital Status ^b | Average Age of Children in Mos. | Non-Abusive Group | | | | | | |
|----------------|--------------------------|---------------------------|-----------------------|-------------------------|--------|--------|--------------------------|------------------------------|----------------------|--------------------------|-----------------------------|------------------------|-----------------------------|----------------|------------|-----------------------|--------------|-------------------|----------------------|-------------------------|---------------|--------------------|-------------------|--------------------|-----------------------------|---------------------------------|-------------------|------------------|------|----|---------|------|----|
| | | | | | | | | | | | | | | | | | | | | | | | | | | | Mean | SD | | | | | |
| 1 | 111 | 4 | 6 | 11 | 55 | 32 | +12 | +7 | +13 | +20 | +3 | +13 | +14 | 13 | 14 | 18 | .88 | 16 | 6 | 8 | 380 | 11 | 1 | 3 | 3 | 75.3 | Non-Abusive Group | Mean | SD | | | | |
| 2 | 102 | 7 | 9 | 13 | 13 | 43 | +11 | +11 | +15 | +21 | +8 | +5 | +16 | 11 | 15 | 2 | .73 | 19 | 7 | 0 | 363 | 8 | 1 | 3 | 3 | 192.3 | | | | | | | |
| 3 | 97 | 10 | 3 | 13 | 23 | 38 | +24 | +26 | +15 | +21 | +14 | +23 | +28 | 6 | 11 | 10 | .90 | 9 | 7 | 11 | 312 | 12 | 1 | 3 | 3 | 199.9 | | | | | | | |
| 4 | 170 | 10 | 3 | 13 | 23 | 38 | +7 | +18 | +21 | +15 | +17 | +13 | +11 | 15 | 9 | 6 | .67 | 17 | 7 | 3 | 309 | 12 | 1 | 3 | 3 | 58.7 | | | | | | | |
| 5 | 148 | 7 | 6 | 11 | 40 | 47 | +7 | +9 | +13 | +16 | 0 | +18 | +12 | 16 | 20 | 11 | .53 | 3 | 0 | 4 | 367 | 11 | 1 | 3 | 3 | 52.0 | | | | | | | |
| 6 | 113 | 7 | 15 | 10 | 20 | 16 | +7 | +3 | +13 | +7 | +2 | +19 | +15 | 4 | 8 | 5 | .52 | 15 | 3 | 0 | 481 | 8 | 1 | 5 | 5 | 56.0 | | | | | | | |
| 7 | 154 | 5 | 2 | 9 | 25 | 23 | +20 | +11 | +15 | +21 | +1 | +15 | +16 | 9 | 7 | 8 | .85 | 17 | 1 | 9 | 371 | 14 | 1 | 3 | 3 | 39.0 | | | | | | | |
| 8 | 109 | 8 | 15 | 8 | 52 | 20 | +8 | +8 | +3 | +13 | -12 | +3 | +14 | 9 | 7 | 6 | .88 | 6 | 6 | 8 | 279 | 11 | 2 | 1 | 4 | 74.2 | | | | | | | |
| 9 | 88 | 11 | 13 | 8 | 54 | 43 | +19 | +18 | +12 | +12 | +14 | +19 | +29 | 12 | 17 | 15 | .91 | 12 | 3 | 9 | 380 | 10 | 2 | 10 | 2 | 12.0 | | | | | | | |
| 10 | 170 | 1 | 4 | 12 | 50 | 34 | +21 | +15 | +12 | +16 | +15 | +11 | +9 | 9 | 14 | 11 | .64 | 10 | 3 | 2 | 243 | 10 | 2 | 1 | 1 | 16.0 | | | | | | | |
| 11 | 141 | 8 | 17 | 9 | 11 | 41 | +5 | +14 | +2 | -4 | -9 | +4 | +11 | 9 | 10 | 11 | .76 | 12 | 9 | 0 | 243 | 10 | 2 | 1 | 4 | 29.5 | | | | | | | |
| 12 | 129 | 11 | 21 | 9 | 25 | 35 | +2 | +14 | +6 | +9 | -12 | +18 | +10 | 18 | 12 | 15 | .46 | 10 | 3 | 2 | 243 | 10 | 2 | 1 | 6 | 115.5 | | | | | | | |
| 13 | 106 | 13 | 14 | 8 | 11 | 47 | +18 | +10 | +18 | +16 | +12 | +17 | +11 | 16 | 4 | 10 | .76 | 12 | 9 | 0 | 589 | 11 | 1 | 2 | 3 | 39.7 | | | | | | | |
| 14 | 120 | 4 | 8 | 11 | 47 | 28 | +11 | +6 | +15 | +30 | +7 | +23 | +16 | 13 | 15 | 8 | .58 | 9 | 3 | 1 | 298 | 14 | 2 | 2 | 5 | 52.4 | | | | | | | |
| 15 | 135 | 4 | 9 | 15 | 42 | 28 | +10 | +15 | +20 | +16 | +4 | +14 | +10 | 6 | 3 | 5 | .74 | 25 | 3 | 1 | 298 | 14 | 2 | 2 | 3 | 92.4 | | | | | | | |
| 16 | 149 | 3 | 5 | 10 | 42 | 26 | +20 | +15 | +20 | +20 | +7 | +23 | +26 | 9 | 11 | 7 | .64 | 15 | 3 | 8 | 300 | 10 | 2 | 2 | 4 | 31.0 | | | | | | | |
| 17 | 117 | 9 | 6 | 12 | 50 | 48 | +11 | +12 | +2 | +20 | +7 | +27 | +27 | 22 | 8 | 18 | .88 | 6 | 3 | 4 | 289 | 12 | 2 | 2 | 2 | 49.3 | | | | | | | |
| 18 | 149 | 11 | 14 | 10 | 52 | 44 | +11 | +12 | +2 | +20 | +7 | +27 | +27 | 15 | 10 | 11 | .83 | 8 | 6 | 4 | 384 | 12 | 2 | 2 | 2 | 94.0 | | | | | | | |
| 19 | 141 | 2 | 3 | 13 | 45 | 36 | +20 | +14 | +16 | +24 | +12 | +20 | +24 | 15 | 10 | 16 | .81 | 7 | 6 | 4 | 311 | 10 | 1 | 2 | 2 | 96.0 | | | | | | | |
| 20 | 122 | 8 | 10 | 11 | 60 | 13 | +12 | +14 | +6 | +15 | +5 | +15 | +9 | 2 | 8 | 16 | .81 | 7 | 6 | 4 | 311 | 10 | 1 | 2 | 2 | 96.0 | | | | | | | |
| Mean | 128.5 | 7.0 | 9.4 | 10.6 | 39.0 | 33.6 | +13.0 | +10.9 | +12.0 | +14.8 | +5.1 | +15 | +14.5 | 11.3 | 10.6 | 9.8 | .73 | 11.4 | 3.6 | 4.1 | 357.0 | 11 | - | 3.2 | - | - | 91.5 | Abusive Group | Mean | SD | | | |
| 21 | 102 | 13 | 24 | 7 | 18 | 24 | -5 | +13 | +4 | -1 | -4 | +9 | +15 | 24 | 8 | 13 | .88 | 20 | 11 | 6 | 307 | 11 | 1 | 3 | 3 | 125.3 | | | | | | | |
| 22 | 102 | 10 | 16 | 8 | 42 | 36 | +1 | +8 | +5 | +6 | +3 | +6 | +14 | 18 | 6 | 17 | .91 | 6 | 3 | 5 | 480 | 10 | 1 | 7 | 3 | 190.7 | | | | | | | |
| 23 | 41 | 13 | 22 | 2 | 16 | 57 | -13 | +10 | -9 | +10 | -1 | -9 | -7 | 3 | 0 | 9 | .93 | 17 | 3 | 0 | 450 | 8 | 1 | 7 | 1 | 27.0 | | | | | | | |
| 24 | 120 | 6 | 11 | 12 | 55 | 32 | +10 | +7 | +5 | +1 | +2 | +8 | +21 | 13 | 19 | 10 | .60 | 6 | 0 | 3 | 306 | 14 | 1 | 3 | 3 | 66.0 | | | | | | | |
| 25 | 91 | 17 | 26 | 4 | 24 | 43 | -5 | +4 | +2 | 0 | -9 | +2 | +2 | 18 | 7 | 9 | 1.00 | 4 | 3 | 1 | 345 | 12 | 1 | 1 | 4 | 106.0 | | | | | | | |
| 26 | 116 | 7 | 14 | 6 | 36 | 23 | +2 | +12 | +2 | -1 | -3 | +8 | +14 | 13 | 11 | 12 | .86 | 20 | 6 | 0 | 286 | 10 | 1 | 3 | 1 | 89.3 | | | | | | | |
| 27 | 94 | 11 | 14 | 7 | 58 | 13 | +8 | +16 | +7 | +3 | 0 | +13 | +5 | 13 | 30 | 2 | .61 | 17 | 2 | 1 | 370 | 12 | 2 | 6 | 1 | 38.0 | | | | | | | |
| 28 | 166 | 8 | 6 | 13 | 37 | 33 | +20 | +10 | +11 | +19 | +2 | +17 | +24 | 13 | 30 | 2 | .67 | 14 | 0 | 0 | 244 | 10 | 1 | 1 | 2 | 104.0 | | | | | | | |
| 29 | 83 | 7 | 13 | 3 | 40 | 35 | +14 | -4 | -5 | +11 | -3 | +12 | +11 | 15 | 17 | 8 | 1.00 | 30 | 0 | 0 | 277 | 12 | 1 | 1 | 3 | 26.0 | | | | | | | |
| 30 | 66 | 12 | 18 | 4 | 19 | 19 | +2 | +8 | -5 | -11 | -11 | -10 | 0 | 6 | 3 | 3 | 1.00 | 30 | 0 | 0 | 277 | 12 | 1 | 1 | 3 | 26.0 | | | | | | | |
| Mean | 98.1 | 10.4 | 16.4 | 6.6 | 34.5 | 31.5 | +3.4 | +8.4 | +2.0 | +2.7 | -2.4 | +5.6 | +9.3 | 13.7 | 11.2 | 9.2 | .83 | 14.9 | 3.1 | 1.8 | 338 | 11.2 | - | 3.5 | - | - | 77.7 | | | | Clients | Mean | SD |
| 31 | 98 | 14 | 17 | 10 | 53 | 27 | +18 | +10 | +6 | +18 | -3 | +12 | +18 | 28 | 31 | 17 | .83 | 0 | 6 | 3 | 318 | 12 | 1 | 2 | 1 | 35.0 | | | | | | | |
| 32 | 120 | 8 | 3 | 9 | 32 | 19 | +15 | 0 | +11 | +18 | +15 | +21 | +20 | 18 | 5 | 12 | .62 | 9 | 2 | 0 | 365 | 10 | 1 | 2 | 3 | 68.5 | | | | | | | |
| 33 | 120 | 8 | 6 | 10 | 24 | 42 | +17 | +17 | +11 | +22 | +12 | +10 | +9 | 17 | 9 | 13 | .88 | 3 | 4 | 3 | 327 | 13 | 1 | 3 | 2 | 232.3 | | | | | | | |
| 34 | 120 | 5 | 6 | 7 | 36 | 25 | +16 | +16 | +8 | +12 | +1 | +12 | +22 | 14 | 5 | 15 | .75 | 21 | 0 | 6 | 298 | 12 | 1 | 7 | 1 | 163.1 | | | | | | | |
| 35 | 79 | 13 | 14 | 9 | 27 | 32 | +2 | +8 | +1 | +5 | -5 | -3 | +2 | 15 | 2 | 15 | 1.00 | 21 | 1 | 3 | 406 | 12 | 1 | 2 | 3 | 62.0 | | | | | | | |
| 36 | 135 | 10 | 9 | 6 | 48 | 49 | 53 | -1 | +9 | +21 | +2 | +10 | +10 | 29 | 7 | 20 | 1.00 | 5 | 9 | 9 | 282 | 12 | 1 | 2 | 3 | 109.0 | | | | | | | |
| 37 | 135 | 10 | 9 | 6 | 55 | 37 | +15 | +5 | +15 | +11 | -5 | +5 | +7 | 14 | 15 | 5 | .83 | 1 | 3 | 3 | 404 | 12 | 1 | 3 | 3 | 84.0 | | | | | | | |
| 38 | 66 | 14 | 18 | 5 | 33 | 29 | +2 | +8 | +1 | +11 | -5 | +5 | +8 | 9 | 6 | 15 | .89 | 3 | 2 | 5 | 378 | 12 | 1 | 3 | 2 | 68.0 | | | | | | | |
| 39 | 69 | 17 | 21 | 6 | 39 | 37 | +14 | +9 | +6 | -2 | -14 | +9 | +10 | 15 | 18 | 18 | .64 | 5 | 3 | 5 | 364 | 13 | 1 | 4 | 4 | 76.5 | | | | | | | |
| 40 | 144 | 9 | 15 | 3 | 49 | 29 | +9 | +14 | +6 | +5 | -9 | -5 | +13 | 21 | 8 | 16 | .88 | 9 | 0 | 5 | 342 | 14 | 1 | 2 | 3 | 44.5 | | | | | | | |
| Mean | 107.0 | 11.2 | 13.1 | 7.3 | 39.7 | 33.0 | +7.9 | +7.8 | +7.4 | +10.2 | -2.8 | +6.8 | +12.6 | 18.1 | 9.6 | 13.8 | .83 | 7.7 | 3.0 | 3.8 | 348.3 | 12.3 | - | 2.7 | - | - | 69.2 | Total Group Mean | SD | | | | |
| Total | 102.6 | 10.8 | 14.8 | 7.0 | 37.1 | 32.2 | +5.6 | +8.1 | +4.7 | +6.45 | -2.6 | +6.2 | +11.0 | 15.9 | 10.4 | 11.5 | .83 | 11.3 | 3.1 | 2.8 | 343.1 | 11.8 | - | 3.2 | - | - | 73.4 | | | | | | |

^aRace: 1 = White; 2 = Black.

^bMarital Status: 1 = married; 2 = separated; 3 = divorced; 4 = single.

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