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**The mediating role of the self in the prediction of psychopathology
from the mother-child relationship**

Magee, Karin Dodge, Ph.D.

The University of North Carolina at Greensboro, 1992

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THE MEDIATING ROLE OF THE SELF IN THE PREDICTION
OF PSYCHOPATHOLOGY FROM THE MOTHER-CHILD
RELATIONSHIP

by

Karin Dodge Magee

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the Faculty of the Graduate School at
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Approved by


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The purpose of the present investigation was to examine the role of the self in the prediction of psychopathology and continuity from the mother-child relationship. There has been much recent support for the prediction of psychopathology and continuity from the mother-child relationship but little exploration of the mechanisms accounting for this influence. Child and maternal psychopathology was examined in addition to child and mother self-perceptions and mother and child reports of the mother-child relationship. Mothers' recollections of their relationships with their own mothers was also assessed. The plausibility of a general theoretical model was tested. Three components of this model were examined independently. Eighty-six mother-child pairs completed questionnaires assessing the domains of interest. The mean age of the children studied was 10. SEM analyses were used in addition to block multiple regression analyses to test the hypotheses. Results did not support a mediating role of the self in the prediction of any of the dependent variables. Mother-child relationship variables alone were related to child psychopathology whereas, maternal self variables alone were related to maternal psychopathology. Maternal reports of maternal control and child reports of maternal acceptance in the mother-child relationship were significantly related to children's perceptions of themselves. Maternal reports of

acceptance in the mother-child relationship were significantly related to child psychopathology scores, and mothers' social competence and self-esteem was significantly related to maternal psychopathology scores. Results do support previous research in that continuity in the quality of mother-child relationships across generations was found. Independence-encouraging versus overprotection in the first generation was related to increased acceptance in the second generation mother-child relationship. The consistency of these findings with previous research and factors limiting the generalizability of the results are discussed as well as areas for future research.

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CHAPTER I
INTRODUCTION

Over the past decade, increasing support has been gathered for the role of the parent-child relationship in the prediction of individual differences in children's psychological and social adjustment. In contrast, little work has examined mechanisms or processes by which the parent-child relationship comes to impact children's adjustment. The purpose of the present study is to examine the role of one potential mediating factor, the self.

The Attachment Tradition

Within the attachment tradition, a substantial body of work has been gathered examining the influence of different attachment relationships upon children's adjustment. John Bowlby is recognized commonly as the founder of attachment theory. He described the role of infant-caregiver attachment in the development of the child and described several stages through which the attachment relationship develops (Bowlby, 1988). Three primary attachment classifications have been identified, beginning with the work of Ainsworth (Bretherton, 1985). These have been labeled insecure-avoidant (A), insecure-resistant (C), and secure (B). Each is associated with different patterns of parenting and child behavior.

An accumulation of research supports the observation that attachment relationships influence children's subsequent development. Securely attached children have been found to have more positive relationships with peers and adults and to have lower rates of psychopathology (George & Main, 1979; Sroufe, 1983). Specifically, securely attached children have been found to be more responsive and sociable with peers in pre-school, to make more social initiatives and to be able to maintain activities for longer periods of time (Main, 1977; Pastor, 1981; Pierrehumbert, Iannotti, Cummings, & Zahn-Waxler, 1989; Waters, Wippman & Sroufe, 1979). Insecurely attached children are not only less sociable, but have been noted to have greater difficulty in problem-solving compared to their securely attached peers.

In a study conducted by Matas, Arend, and Sroufe (1978) securely attached children were found to have enhanced problem-solving ability compared to insecurely attached children. They were more likely to seek help from the attachment figure for problems that were too advanced, and they showed a greater ability to sustain attention, compared to insecure groups. Insecure-avoidant children were found to be less involved in the tasks at hand, to be more hostile than the other groups of children, and to seek help from the experimenter when they needed it, rather than the caregiver. Insecure-resistant children showed the lowest

frustration tolerance, were whiny and uncooperative, and frequently requested help.

Children with insecure attachment classifications are also likely to exhibit higher rates of behavioral disorders compared to securely attached children (Bretherton, 1985; Main, Kaplan & Cassidy, 1985). In a study conducted by Lewis, Feiring, McGuffog, and Jaskir (1984), insecure attachment was not found to be a sufficient risk factor for psychopathology, but secure attachment was found to significantly reduce the likelihood of disturbance, despite the presence of several risk factors. Securely attached children are rated by teachers and observers as more compliant, cooperative, and compassionate with peers and as having higher self-esteem (Sroufe, 1983). In contrast, insecurely attached children have been rated as having poor social skills, as excessively attention-seeking, and as aggressive (Erickson, Sroufe, & Egeland, 1985; Sroufe, 1983).

Other Research Examining the Role of the Parent-Child Relationship

In addition to the work conducted within an attachment framework, other researchers have also explored the role of the parent-child relationship in children's adjustment.

Aggressive children have been found to have interactions with parents that differ from those of non-aggressive children and their parents. Parents of aggressive

children have been found to be permissive and rejecting, to frequently model aggression themselves, to show poor problem-solving skills and to frequently fail to monitor their children's activities (Parke & Slaby, 1983; Perry, Perry, & Boldizar, 1990; Patterson & Dishion, 1988).

In addition to work examining the role of the parent-child relationship directly, research in related areas examining the influence of other factors upon child adjustment also points to the importance of the parent-child relationship in children's adjustment. For example, several studies examining the influence of maternal depression have pointed to the importance of the quality of the mother-child relationship, rather than maternal depression itself, as the key factor in the prediction of maladaptive outcomes for children. That is, in cases where children were affected negatively by their mother's depression, the mother was also unable to provide a supportive, caring, and sensitive relationship for the child (Downey & Walker, 1989; Fisher, Kokes, Cole, Perkins, & Wynne 1987; Musick, Stott, Spencer, Goldman, & Cohler, 1987; Farber & Egeland, 1987; Hammen, Burge, & Stansbury, 1990). Similar observations have been made by researchers working in the area of maternal schizophrenia (Goodman & Brumley, 1990; Worland, Weeks, & James, 1987).

There is also some recent evidence that suggests that the quality of the parent child relationship is responsible

for negative child outcomes in families where there is extreme marital discord. Children exposed to high levels of marital discord at home are at higher risk for psychopathology compared to children not exposed to discord between their parents (Emery Weintraub, & Neal, 1982; Porter & O'Leary, 1980; Emery & O'Leary, 1982; Rutter, 1970). However, recent research suggests that this negative influence is best predicted by a negative parent-child relationship which is most likely the result of the stress arising from the strained marriage between the child's parents (Richman, Stevenson, & Graham, 1982; Rutter, 1989; Meyer, 1988; Goldberg & Easterbrooks, 1984; Easterbrooks & Emde, 1988). That is, children in families where there were positive parent-child relationships but high rates of marital discord were not at any greater risk for negative outcomes when compared to children from non-discordant families.

The body of research summarized above lends support to the theoretical importance of a positive parent-child relationship in children's future development. Much less research is available examining the mechanism(s) for this relationship, or how relationships influence development. Continued investigation of mechanisms of transmission is crucial in order to better understand how parent-child relationships come to impact future development. A clearer understanding of how relationships influence individuals and

future relationships will help to guide intervention research and strategies with populations at risk.

Theoretical Support for the Role of the Self

Several theorists have suggested that the self plays an important role in predicting adjustment from the parent-child relationship. The self is often thought to include conceptualizations of one's self-competence in addition to self-esteem (Harter, 1988). Self-competence can be defined as one's assessment of one's skills in particular domains. Self-esteem can be defined as one's affective appraisal of the adequacy of the self. Most of this support comes from positions stemming from the psychoanalytic tradition, such as Sullivan's interpersonal theory, the work of Mahler, and attachment theory.

Sullivan's (1953) theory begins with the parent-child relationship. If the child's relationships with parents are anxiety-filled the child will come to view him/herself negatively. The child's view of him/herself guides future interactions in a manner that is consistent with this view. However, the child is able to alter his/her self, and, therefore, the course of future development, if the child is exposed to a warm, caring, and intimate relationship in which s/he can begin to re-create his/her view of the self in a positive manner. The self, then, is conceptualized as playing a causal role in the prediction of psychopathology and is developed within the parent-child relationship.

In Mahler's view (1968), the child's mental health is dependent upon his/her ability to separate and individuate successfully from the mother and introject a view of the mother that will allow the individual to be able to successfully explore and act independently within the environment. In her view, "healthy functioning requires a sense of separateness from as well as relatedness to the world" (Brooks-Gunn & Lewis, 1982, p. 343). This is created through the self, which develops within the context of the parent-child relationship, and therefore, is dependent upon the quality of that relationship.

Finally, the quality of the parent-child relationship is also implicated in the attachment literature. The quality of the child's relationship with parents determines the kind of internal working model that will be formed, including perceptions of the self, of parents, and of relationships in general (Bowlby, 1988; Sroufe & Fleeson, 1988). A positive attachment relationship allows the child to explore successfully his/her environment and develop positive relationships with others in the future (Bowlby, 1988). It is the internal working model, which includes a conceptualization of the self, which is believed to be responsible for continuity in behavior within the individual and across generations (Bowlby, 1988; Main, Kaplan & Cassidy, 1985; Bretherton, 1985; Sroufe & Fleeson, 1988). The self, developed within the context of parent-child

relationships, predicts not only the individual's psychological adjustment but also the quality of his/her future relationships.

Support for Continuity in Parent-Child Relationships

Empirical work within the attachment tradition also has been conducted using adolescent and adult populations. These studies have explored retrospectively, the individual's representation of his/her attachment relationships with parents, and the influence of these representations upon adjustment or the quality of current relationships. Several studies appear to be consistent in suggesting that the quality of a parent's attachment relationship with their own parent plays a significant role in predicting the quality of that parent's attachment relationship with their child (Main, Kaplan, & Cassidy, 1985; Grossmann, Fremmer-Bombik, Rudolph, & Grossmann, 1988; Ricks, 1985).

In a study conducted by Main, Kaplan and Cassidy (1985) the attachment representations of parents were examined in relation to the attachment relationships they established with their own children. The Adult Attachment Interview (George, Main, & Kaplan, 1985) was used to assess parents' attachment representations. The child's attachment classification was established using the Ainsworth Strange Situation when each child was 12 and 18 months of age, and a revised procedure at age six. Groups of parents, differing in their attachment representations, were identified and

labeled, secure, preoccupied, and dismissing. The secure group was open and willing to discuss their attachment relationships and also indicated that they viewed attachments between parents and children as important, and had worked to understand the influence of their own upbringing upon their development. The dismissing group was characterized as viewing attachment relationships as "being of little concern, value, or influence" (pg. 91). The last group, "seemed preoccupied with dependency on their own parents and still actively struggled to please them" (pg. 91). Results were consistent with the hypothesized role of parents' attachment representations in the quality of the relationships developed with their own children. Parents with secure attachment representations were more likely to have securely attached children, while parents with insecure attachment relationships (either dismissing or preoccupied) were more likely to have children with insecure attachment classifications.

Similarly, Grossmann et al. (1988) identified four attachment representation patterns labeled: positive, non-defensive, idealizing, and repressive. The categories positive and non-defensive were consistent with the secure group identified by Main et al (1985). Similar results were also obtained. That is, parents with positive or non-defensive representational patterns were more likely to have securely attached children, while those with idealizing or

repressive representational patterns were more likely to have children with insecure attachment classifications.

Ricks (1985) reports consistent results using Epstein's Mother-Father-Peer Scale (Epstein, 1983) to assess mothers' memories of childhood relationships. Mother's self-esteem was also assessed. Mothers of securely attached infants were found to have more positive attachment representations, and higher self-esteem, compared to mothers of insecurely attached infants. Particularly significant were mothers' recollections of the degree to which they were accepted by their own mothers. Similar results were reported in a follow-up investigation using preschool children and their mothers (Ricks, 1983).

Meyer (1988) and Belsky (1985) present similar models in which parents' recollections of their relationships with their own parents were hypothesized to predict parental personality, which was hypothesized to predict the quality of the parent-child relationship. Although Belsky (Belsky & Isabella, 1988) have not found support for the role of developmental history in his research, Meyer (1988) did. In this study, subjects' recollections of the quality of the relationship with their mothers were predictive of parental personality and the quality of the parent-child relationship.

The attachment tradition has provided a wealth of data examining the influence of attachment relationships,

developed in early childhood, upon subsequent psychological adjustment and continuity in relationships across time. Although the research cited is supportive of attachment theory, research has not yet explored the role of the internal working model, the proposed mechanism responsible for continuity in relationships and adjustment across time. That is, support has been found for the prediction of psychopathology and continuity from various attachment classifications, however, research has yet to explore the theorized mechanism for this influence - the internal working model. Presumably, if the internal working model serves as a mechanism for the prediction of adjustment and continuity from the parent-child relationship, then the quality of the parent-child relationship should predict children's self-perceptions, and self-perceptions should in turn predict psychopathology and future outcomes.

Empirical Studies Examining the Self

Few studies are currently available examining the importance of the self in predicting psychopathology, or the role of the parent-child relationship in the prediction of the self. Both lines of research are central to examining the utility of the self as a mediator in the prediction of psychopathology from the parent-child relationship.

In a recent investigation conducted by Cassidy (1988), the relation between children's attachment classifications and views of the self were examined. Children classified as

secure had more positive self-esteem scores and were able to indicate positive as well as negative aspects of the self. In contrast, insecure-avoidant children identified themselves as 'perfect.' That is, they had difficulty identifying negative aspects of the self, responding 'defensively' to the questions asked. These results provide some preliminary support for the contention that the quality of the parent-child relationship predicts the quality of the child's view of the self. One difficulty with this study, however, was that the self-esteem measure used was not appropriate for the age group studied. That is, the measure was developed for and normed on an older age group, and is generally not considered appropriate for younger children (Harter, 1979).

Other research examining the influence of the parent-child relationship upon the self has come from studies examining abusive parenting. Abused and neglected children have frequently been reported to have insecure attachment relationships with their parents (Egeland & Sroufe, 1981; George & Main, 1981; Schneider-Rosen, Braunwald, Carlson, & Cicchetti, 1985; Farber & Egeland, 1987; Cicchetti & Olsen, 1990; Carlson, Barnett, Carlson, Barnett, Braunwald, & Cicchetti 1989; Lamb, Gaensbaur, Malkin, & Schultz, 1985). In addition, these abusive parent-child relationships also appear to be related to delayed self recognition and more negative affect associated with the self in infancy.

In one investigation conducted by Schneider-Rosen & Cicchetti (1984), 19-month-old maltreated infants were observed in the strange situation procedure and the standard mirror-and-rouge paradigm (a visual self-recognition task commonly used in the self development literature with toddlers) (Lewis & Brooks-Gunn, 1979). Maltreated infants were less likely to visually recognize themselves than matched non-maltreated infants. However of those maltreated infants who did recognize themselves, 90% were securely attached. In addition, maltreated infants who recognized themselves displayed either neutral or negative affect while positive affect exclusively was displayed by non-maltreated infants.

In two additional investigations similar results were reported (Beeghly, Carlson, & Cicchetti, 1986; Cicchetti & Beeghly, 1987). These studies examined toddlers' language related to the self (i.e. 'I am hungry' 'I like the color blue' etc.). No differences were reported between groups of maltreated and matched non-maltreated children in receptive language. However, a significant difference was reported in children's production of language related to the self, with maltreated infants producing less.

This work is important in that it provides some support for the influence of negative parent-child relationships upon the self. However, much research is still needed to investigate this influence within normative (non-abusive)

populations and also to examine the influence of the self upon psychopathology and continuity in relationships. If the self mediates the influence of parent-child relationships upon future outcomes, it must be shown to predict psychopathology, and to be predicted by childhood relationships. Continued investigation of mechanisms of transmission is crucial in order to better understand how parent-child relationships come to impact future development. A clearer understanding of how relationships influence individuals and future relationships will help to guide intervention research and strategies with populations at risk.

Previous research examining the role of the self in the prediction of psychopathology has almost exclusively examined self-esteem. Self-esteem can be defined as one's affective appraisal of the adequacy of the self. Research that also includes one's cognitive representation of the self in particular domains, or self-competence, in addition to self-esteem is needed in order to understand more fully the impact of the self upon psychopathology. In addition, much of the current research available within this area has utilized measures of self with poor psychometric properties that have been developed without reference to developmental norms (for a review please see Harter, 1987; Wylie, 1974).

Self-esteem and a generally positive assessment of one's competence has often been implicated in the prediction

of childhood psychopathology. However, little empirical work has actually examined the importance of these variables. For example, in introducing a treatment approach for the enhancement of children's self-esteem, Pope, McHale, and Craighead (1988) make the following claim:

For children, a healthy self-esteem has been seen as especially valuable, since it serves as the foundation for a child's perceptions of life experiences. The social-emotional competence derived from this positive self-appraisal can be a force that helps the child avoid future serious problems (p. 5).

Although this statement is consistent with our intuition, more extensive empirical work is necessary to investigate the importance of the self. Another author states:

While it appears likely that socioemotional behavior and its socialization affect the child's developing self system, there is only weak evidence to indicate any direct effect of early emotional life on the... self. Nevertheless, the development of the self system impacts on the child's subsequent emotional life (Lewis, Sullivan, Stranger & Weiss, 1989, pp 154-155).

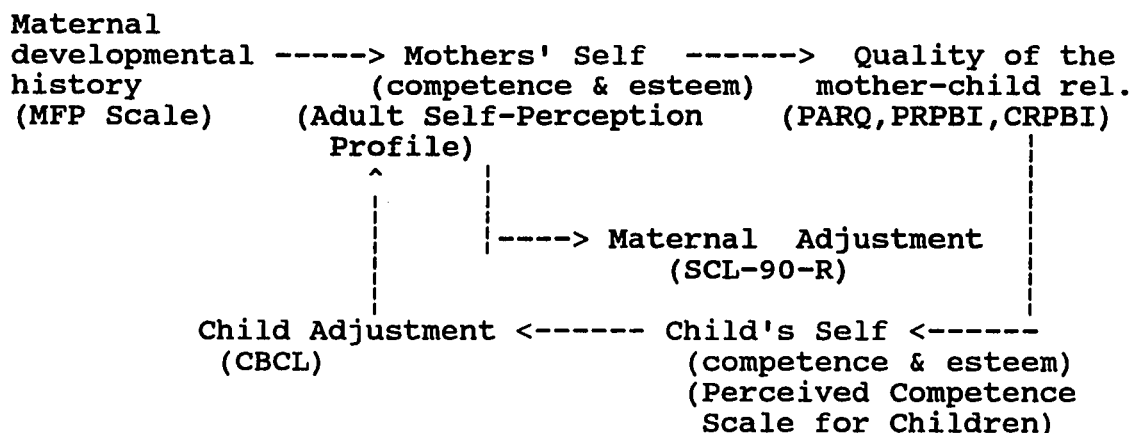
Harter (1988) views self-esteem as the mediator of one's mood and motivation and provides some support for this view. Her research suggests that self-esteem is related to mood. Children who like themselves have been found to be cheerful, while those who do not are reported to be depressed in mood. In a recent investigation by Dodge and Keane (1989), children's self-competence was also found to be related to adjustment. Assessments of the self in cognitive, physical, and social domains were found to significantly relate to children's adjustment. That is,

those children with low rates of self-competence evidenced higher rates of self-reported psychopathology.

The current investigation was intended to explore the role of the self in the prediction of adjustment and continuity from the mother-child relationship. Previous research has documented the importance of the mother-child relationship in the prediction of children's adjustment and continuity in the quality of relationships across generations. However, little research has examined how this relationship influences child adjustment. In the current investigation the influence of the mother-child relationship upon child adjustment and continuity in mother-child relationships was predicted to be mediated by children's views of themselves. The self was operationalized as the individual's evaluation of his/her competence (self-competence) in several areas, and his/her degree of self-esteem (affective evaluation of the adequacy of the self). As mentioned above, there is theoretical support for the role of the self in this regard, but little empirical work. The model that this investigation sought to support is diagrammed in Figure 1. Mothers' relationships with their own mothers was hypothesized to predict mothers' views of themselves which was hypothesized to predict the quality of mothers' relationships with their own children and mothers' adjustment. In addition, the mother-child relationship was hypothesized to predict children's views of themselves

Figure 1.

Predicted Model



which was hypothesized to predict children's adjustment. Alternative pathways indicating direct influences of the mother-child relationship (retrospective as well as the current mother-child relationship) upon adjustment (mothers' as well as children's) were not predicted to be as strong. That is, the self was predicted to mediate the influence of the mother-child relationship upon adjustment. Finally, a hypothesized relationship between children's adjustment and mother's views of themselves was also predicted. This general model can be simplified into three components which are labeled A, B, and C and are diagrammed in Appendix A.

Mother's representations of their relationships with their own mothers was assessed in addition to their self-competence and self-esteem, and degree of psychopathology. In addition, the quality of the mother-child relationship,

the child's self-competence and esteem, and the child's level of adjustment was also assessed.

Purposes of the Study

The present investigation sought to contribute to the field in several ways: first, by identifying a potential mechanism, the self, for the influence of the mother-child relationship upon children's adjustment; second, by exploring the degree of association between the mother-child relationship and children's view of themselves; third, by studying the role of children's and mothers' self-competence and self-esteem in the prediction of psychopathology; fourth, by exploring continuity in the quality of mother-child relations across generations; and finally, by examining the contribution of those variables of interest here, mother-child relationship and self, beyond the contribution of demographic variables (e.g. race, SES, gender).

Hypotheses

Generally, it was hypothesized that the model described and diagramed above, would be supported by this study. The specific hypotheses studied are as follows:

(1) Children's self (self-competence and esteem) was hypothesized to mediate the relationship between the quality of the mother-child relationship and the level of psychopathology exhibited by children.

(2) Mothers' self (self-competence and esteem) was

hypothesized to mediate the relationship between mothers' recollections of the quality of their relationships with their mothers and the degree of psychopathology exhibited by mothers.

(3) It was hypothesized that mothers' self (self-competence and esteem) would play a mediating role in the prediction of the quality of the mother-child relationship from mothers' recollections of the quality of their relationships with their own mothers.

(4) Finally, it was also hypothesized that the degree of adjustment exhibited by children would be related to the degree of self-competence exhibited by mothers. High rates of child psychopathology were expected to be associated with low rates of maternal self-esteem and self-competence.

CHAPTER II

METHOD

Subjects

The participants for this study were 86 mother-child pairs. Children were in the process of completing their fourth grade year in the Greensboro public schools. The study took place from April until June of 1991. These mothers and their children were a subset of participants who were originally contacted in the spring of 1990 and asked to participate in a study conducted at their children's school. At that time they were given the opportunity to indicate a willingness to be recontacted in order to participate in further investigations at the University. Forty-seven of the children studied were male, and 39 were female. Approximately two-thirds of the participants were white and approximately one-third were black. The children ranged in age from nine to twelve, although 93% of the sample was between the ages of 9 and 10. Mothers' educational level was used to estimate socioeconomic status (SES). Years of education ranged from a low of 10 to a high of 20 years, with the mean number of years at 15. A more complete description of this demographic information is presented in Table 1.

Table 1.

Sample Demographic Characteristics

SEX	RACE	AGE	EDUCATION
male 47	white 59	nine 21	< 12 years 16
female 39	black 27	ten 59	13-15 19
		eleven 5	16 32
		twelve 1	> 16 19

	N	Mean Age	Education
MALE white	28	10	15.4
black	19	10	14
FEMALE white	31	10	16
black	8	10	12.6

Measures

Adjustment was assessed with the use of one measure for mothers and one for children. **The Symptom Checklist-90-Revised (SCL-90-R)** (Derogatis, 1983) was completed by the mothers. It is a 90-item self-report symptom checklist. Each item is rated on a 5-point scale of distress ranging from "not-at-all" to "extremely". This measure can be scored with use of its 9 primary symptom dimensions and the global severity index. For the purposes of the present investigation the global severity index was used (T scores ranged from 29 - 72). Internal consistency has been reported to range from .77 to .90, and test-retest estimates over a one week period ranged between .80 and .90 (Derogatis, 1983). In order to assess concurrent validity, the SCL-90-R was compared with the MMPI, with construct correlations

ranging between .41 and .75 (Derogatis, 1983).

Children's adjustment was assessed with the use of the **Child Behavior Checklist (CBCL)** (Achenbach & Edelbrock, 1983) The **CBCL** is a 118 item behavior checklist completed by parents to assess the psychological adjustment of their children. Each item is scored from zero (not true) to two (very true). The measure is empirically derived and assesses a broad range of problems relevant to children's mental health. The checklist is scored using normative data of other children of the same age and gender. A total score in addition to broad band (internalizing/externalizing) and narrow band (e.g. hyperactivity, delinquency, depression) assessments can be made. For the purposes of the current investigation, the total and broad band scores were used (T scores ranged from 36 - 81 for the total scores, and 7 - 79 and 31 - 78 for internalizing and externalizing, respectively). Test re-test reliabilities were calculated to be .95 for the behavior problems following a one-week interval and .84 after a three-month interval. Test re-test reliabilities are also good for the scale scores, ranging from .61 to .98 (Achenbach & Edelbrock, 1983). The measure has also been shown to have acceptable content, construct, and criterion-related validity (Achenbach & Edelbrock, 1983).

In order to assess participant's self-competence and self-esteem, the Harter scales appropriate for each age

group were used. The **Perceived Competence Scale for Children** (Harter, 1979) was used to assess the children's self-competence and self-esteem. It is a 28-item scale completed by children assessing self-esteem as well as self-competence in physical, cognitive and social domains. Each item consists of a pair of statements for which the child is asked to indicate which statement is like him/her (like me/not like me) and then to indicate the degree to which the statement chosen is like him/her (a lot/sort of). This procedure has been shown to reduce the likelihood of responding in a socially desirable manner. Items are scored from 1 to 4 and then an average is obtained for each domain. Therefore, domain scores also range from 1 to 4. In the present investigation all domain scores ranged from 1.14 to 4. The scale was derived following developmental research investigating the ability of children at various ages to discriminate aspects of the self (Harter, 1988). The scale has been shown to have acceptable internal consistency with estimates ranging from .73 to .83 (Harter, 1979).

Mothers were asked to complete the **Adult Self-Perception Profile** (Messer & Harter, 1986). This is a 50-item scale presented in the same format as the scale for children. It measures 11 domains, in addition to self-esteem, these are: sociability, job competence, nurturance, athletic abilities, physical appearance, adequacy as a provider, morality, household management, intimate

relationships, intelligence and sense of humor. Each domain was identified as an aspect of the adult self through developmental research (Harter, 1988). The scale has been shown to have adequate internal consistency scores (ranging from .63 to .92) (Messer & Harter, 1986). Factor analyses indicate that each scale defined its own factor with high factor loadings within factors and negligible factor loadings across factors, with one exception. The job competence scale did not define its own factor. Messer and Harter (1986) suggest that these items may have been interpreted differently by the women in their sample. This is suggested by the weak correlation between the nurturance and job competence scales, suggesting that the 'homemakers' in the sample (50%) viewed their job as one of nurturance since the majority were involved in child rearing. For the purposes of this study, a total of four subscales were used, each selected for its relevance to relationship and parenting issues. They are as follows: self-esteem, sociability, nurturance, and intimate relationships. These scales, specifically, have reliability estimates as follows: sociability .73-.81; nurturance .65-.87 intimate relationships .72-.88; and self-esteem .87-.92. As with the Perceived Competence Scale for children, domain scores range from 1 to 4. In the present investigation ranges for each domain were as follows: sociability 1.5 - 4; nurturance 1.25 - 4; intimate relationships 1.5 - 4; and self-esteem 1.17-4.

Finally, in order to assess the quality of the mother-child relationship separate measures were used to assess mothers' relationships with their children and mothers' views of their relationship with their own mothers. Epstein's (1983) **Mother-Father-Peer Scale (MFP)** was used to assess mother's recollections of their childhood relationships with their mothers. The scale assesses the degree to which parents are reported to have been independence-encouraging, versus overprotective, and the degree to which parents were accepting versus rejecting. Also included is an assessment of the degree to which parents are idealized by the participant. All items are responded to with respect to when the participant was a child. The scale includes 70 items, however, only those items which assess representations of one's mother (30 items) were used in this study. The participant was asked to indicate the degree to which s/he agrees with each statement, using a 5-point scale, ranging from "strongly disagree" to "strongly agree." Possible ranges for each subscale with ranges for the present investigation were as follows: independence-encouraging versus overprotective, 13 - 65 (in present sample 18-63), accepting versus rejecting 10 - 50 (in present sample 17 - 50), and idealization 7 - 35 (in present sample 8 - 33). The **MFP Scale** has been shown to have high reliability (ranging from .82 to .93). The scales for the items referring to mother specifically have

reliability estimates that range from .88 to .91.

The quality of the mother-child relationship was assessed using two measures completed by both mothers and children. Two measures were selected in order to assess two domains commonly recognized in the parenting literature as important aspects of the parent-child relationship - acceptance/warmth and control (e.g. Baumrind, 1967; Rohner, & Pettengill, 1985). The parent and child forms of the **Parental Acceptance-Rejection Questionnaire (PARQ)** were used to assess parental acceptance (Rohner, 1990). This is a 60-item scale designed to assess perceptions of maternal acceptance along four dimensions of acceptance-rejection: warmth or affection, aggression or hostility, neglect or indifference, and undifferentiated rejection. Cronbach's alpha for subscales for the adult and child forms have been reported to range from .86 to .95 and .72 to .90, respectively (Rohner, 1990). In addition, the scales have been demonstrated to have acceptable convergent, discriminant, and construct validity (Rohner, 1990). For the purposes of the current investigation, the total score was used. Possible scores range from 60 to 240 with high scores indicating increased rejection. In the present sample, scores for mothers' reports ranged from 67 to 137, and scores for children's reports ranged from 62 to 136.

In order to assess parental control, twenty items from the **Child Report of Parental Behavior** (completed by

children) and the **Parent Report of Parental Behavior** (completed by mothers) were used. Specifically, the scales assessing control, intrusive control, control through guilt and extreme autonomy were used. A total score is created by combining these subscales, with reverse scoring for the autonomy subscale. Total scores can range from 10 to 30. In the current sample, scores ranged from 14 to 27 using mothers' reports of control and from 14 to 28 using children's reports of control. Median internal consistency reliabilities for these scales have been reported to range from .66 to .84 (Schaefer, 1965).

Procedure

Those mothers who gave consent to be recontacted for possible participation in additional research projects at the University in the Spring of 1990 were contacted by this researcher, and their participation in this project was requested. Upon arrival at the University, mothers and children were asked to complete the consent for participation form, as well as the measures described above. Following the completion of these measures, participants were reimbursed for their time. Mothers received \$5.00 and children received small toys. Each participant, mothers and children, were given the opportunity to make comments or ask questions following their participation. Results of the study will be mailed to those who indicated an interest. None of the participants requested specific information

regarding their responses or the responses of their mother or child.

Analyses

In order to test the general model and hypotheses outlined above, the hypothesized model was separated into three components. These components are diagramed in the Appendix. Several steps were taken to analyze these models. First, structural equation modeling (SEM) was used to determine the degree to which the data collected fit each of the three proposed component models. This procedure allows one to test two models, a measurement model and the predicted model. Second, blocked multiple regression analyses were conducted to further test the hypotheses of this study. The justification for this procedure is presented below.

The measurement model in SEM determines the degree to which the measures selected adequately assess the constructs proposed (Bellack & Hersen, 1984; Biddle & Marlin, 1987; Hayduk, 1987; Judd, Jessor, & Donovan, 1986; Martin, 1987). This is accomplished with a procedure akin to a factor analysis. The overall fit of the measurement model is tested with a chi square statistic in order to determine the degree to which the observed and predicted covariations are the same. For example, this procedure determines the degree to which the quality of the mother-child relationship is predicted by those measures used - the total score from the

CRPBI and the PRPBI (one for mothers and one for children, assessments of maternal control) and the total score from the PARQ (one for mothers and one for children, assessments of maternal acceptance/rejection). The measurement models were acceptable for all constructs with the exception of the mother-child relationship. In this case, mother and child reports of acceptance/rejection and control did not correlate, preventing the establishment of one construct, mother-child relationship, predicted by each reporter's scores. Therefore, in all of the models tested mother control, child control, mother acceptance/rejection, and child acceptance/rejection were examined independently. That is, each defined its own construct.

Second, SEM determines the adequacy of the proposed model in light of alternative competing models (Bellack & Hersen, 1984; Biddle & Martin, 1987; Hayduk, 1987; Martin, 1987; Judd, Jessor & Donovan, 1986). For example, the mediating role of the self was tested compared to a more direct prediction of psychopathology from the mother-child relationship. The models tested are diagramed in Appendix A, with alternative and predicted paths indicated.

Structural equation modeling was initially considered the analysis of choice for several reasons. First, since a theoretical model was to be tested, a statistical procedure designed to test theoretical models was deemed most appropriate (Biddle & Marlin, 1987; Martin, 1987). Second,

SEM has several advantages over other analyses. Structural Equation Modeling allows one to estimate measurement error since multiple measurements of each construct are used, increasing the power of the analysis (Baron & Kenny, 1986; Biddle & Marlin, 1987; Martin, 1987). In multiple regression analyses measurement error is assumed to be zero. Since multiple measures of a construct are used in SEM, the researcher is able to incorporate higher order constructs into the analysis (Biddle & Marlin, 1987; Martin, 1987). For example, it becomes possible to examine the relationship between self-understanding and the mother-child relationship whereas only individual variables, such as the relationship between self-esteem and maternal control, can be examined in multiple regression. Finally, it is possible to examine several predicted paths simultaneously using SEM, whereas different analyses must be conducted to examine each path using multiple regression (Baron & Kenny, 1986; Biddle & Marlin, 1987; Martin, 1987).

Despite these advantages, SEM analyses were not ideal for this study. First, as indicated above, the measurement model was not adequate with regard to the higher order construct, mother-child relationship. Because it was necessary to consider each indicator of the mother-child relationship separately, the relative advantage of SEM analyses was reduced in comparison to multiple regression analyses. The advantage of SEM analyses to use multiple

measurements of a construct, and therefore estimate measurement error, rather than assuming it is zero was lost with regard to this construct. Second, the relatively small sample size ($n = 86$) also made SEM analyses disadvantageous. Although the assumptions of SEM were not violated with use of this sample size, it is not possible to have confidence in the stability of the parameter estimates given the small number of subjects for each estimated parameter (Baron & Kenny, 1986; Biddle & Marlin, 1987; Martin, 1987). Third, although it is possible to add demographic variables (race, SES, gender) to the SEM analyses, the addition of these variables only serves to further limit the number of subjects available for each estimated parameter, and interactions between demographic and other variables cannot be examined in SEM analyses. Therefore, although SEM analyses were conducted for each sub-model, these analyses should be viewed cautiously. Given the factors listed above, the multiple regression analyses are more appropriate for this sample.

A series of blocked multiple regression analyses were conducted for each submodel following the procedure currently recommended in the statistical literature for testing mediator hypotheses (Baron & Kenny, 1986). Blocked multiple regression was used because it allows for variables to be entered into the regression model in a block in order to determine the influence of the block of variables as well

as individual variables within each block. The blocks used in the current investigation were as follows: demographic variables (SES, race, and gender), mother-child relationship variables (For the mothers's relationship with their children: child reported control, mother reported control, child reported acceptance and mother reported acceptance; For mothers' relationship with their own mothers: independence-encouraging/overprotection, acceptance/rejection, idealization) and finally, self variables (for children: self-esteem, and social, physical, and cognitive competence; for mothers: socialization, nurturance, intimate relationships and self-esteem). The first step involved the prediction of the dependent variable of interest (maternal psychopathology, child psychopathology, or the mother-child relationship variables) using only demographic variables. In the second step, the relationship variables were added to the model. Finally, in the third step, the self variables were added to the model. The self variables were entered last in each case. In order to support the prediction that self mediates the relationship between the mother-child relationship and psychopathology (or continuity in relationships across generations as in model C), mother-child relationship variables must first predict psychopathology, however, following the addition of self variables to the model the contribution of the mother-child relationship variables to

the prediction of psychopathology was expected to change. A change in the beta coefficients of the mother-child relationship variables must be observed as a result of the addition of the self variables to the model if the self serves as a mediator (Baron & Kenny, 1986). In the most dramatic case, a coefficient may change from being a significant to a non-significant predictor, or from being positively to negatively related to the dependent variable.

CHAPTER III

RESULTS

Results will be discussed in terms of each predicted component of the overall model diagramed in Appendix A. The means and standard deviations for each variable studied are included in Appendix B. The first order correlations for all variables used in this study are presented in Appendix C.

Model A: The Prediction of Child Psychopathology

On the CBCL, the child psychopathology measure, a clinical score is indicated by a T-Score of 70 or greater. Using this criteria, 5 out of 86 children (6%) had total scores falling within the clinical range.

The SEM analyses reveal an adequate fit of the data to the predicted model ($\chi^2_{(3)} = 74.87, p = .145$) with the inclusion of one alternative pathway. In order for the model to be considered an adequate fit of the data, the p value must exceed .05 (the goodness of fit of the observed covariations and hypothesized covariations is examined in this analysis). Likewise, in order for an individual path within the overall model to be considered significant ($p < .05$), the t value for the path must exceed 1.98. Three paths within the model were significant. Mothers' reports of maternal control within the mother-child relationship were

significantly related to child self. Likewise, the degree of acceptance/rejection within the mother-child relationship by mothers' reports were significantly related to child psychopathology scores. Finally, children's reports of maternal acceptance/rejection were also significantly related to child self. This model is diagramed in Appendix D with corresponding Beta and Gamma scores (akin to beta coefficients in multiple regression analyses) and t values for significant paths.

Multiple regression analyses were conducted in the order indicated above. At the first step, only demographic variables, child's age, race, gender, and socioeconomic status (SES) (maternal education level was used as an estimate of SES), were entered into the model to predict child psychopathology. This step was not significant (R square = 7.58, $p = .167$). In the second step, the mother-child relationship variables were added to the demographic variables. The additional variables at this step were: child report of control, child report of acceptance/rejection, maternal report of control, and maternal report of acceptance/rejection. At this step the model approached significance (R square = 17.2, $p = .057$), with only one significant variable within the model. Maternal report of acceptance/rejection was significantly related to child psychopathology ($p = .008$) and accounted for 8% of the variance independently. Finally, the child self variables

were added to the model (esteem, and social, cognitive and physical competence). The full model was also non-significant (R square = 18.25, $p = .20$). However, maternal report of acceptance/rejection continued to be significant. These data are presented in Table 2.

Analyses were also conducted examining the relationship between the independent variables and children's psychopathology within internalizing and externalizing domains. SEM as well as multiple regression analyses were conducted. The SEM model that did indicate an adequate fit of the data included a direct path between mother-reported maternal acceptance/rejection and children's externalizing scores and no significant paths between child self and psychopathology scores ($\chi^2_{df} = 79.79, p = .136$). No paths significantly predicted internalizing scores. As in the model noted above, significant paths between mother-reported maternal control and child self, and child-reported acceptance/rejection and child self were obtained.

The multiple regression results are consistent with the SEM results. Children's internalizing scores were not significantly predicted by the variables studied, each step in the multiple regression was non-significant (demographic model: R square = 5.69, $p = .30$; demographic + m-c relationship variables: R square = 11.88, $p = .25$; full model: R square = 17.41, $p = .24$). The results with regard to children's externalizing scores were the same as those

for the total psychopathology scores. Mother-child relationship variables significantly predicted externalizing scores ($R^2 = 17.99$, $p = .04$), however, only mother-reported maternal acceptance/rejection was significantly related to children's externalizing scores ($p = .002$). No other variables were significantly related to children's externalizing scores (demographic model: $R^2 = 5.50$, $p = .32$; full model: $R^2 = 19.14$, $p = .16$).

Despite the acceptable fit of the collected data to model A in the SEM analyses, little support for a mediating role of the self can be concluded. In fact, the SEM model that adequately fit the data includes a significant path from maternal report of acceptance/rejection to child psychopathology, and a non-significant path between child self and psychopathology. The predictive importance of maternal acceptance/rejection is also indicated from the multiple regression analyses. Therefore, more support has been gathered for the alternative hypothesis of a direct influence from the mother-child relationship, rather than a mediated influence through child self. Interestingly, the SEM analyses point to the importance of mothers' reports of maternal control and child-reported maternal acceptance/rejection in the prediction of child self. Because the self includes children's assessment of self-competence and self-esteem, it is possible that maternal control is more predictive of children's self-competence and

acceptance/rejection is related to children's self-worth. That is, it is likely that children who perceive themselves as less competent than their peers have mothers who exert high levels of control and that children who perceive themselves to be accepted by their mothers also report high self-worth. Given the nature of these analyses it is not possible to determine the direction of effects. Therefore, it is equally likely that children develop low self-competence as a result of a mother-child relationship which is high in control as it is that mothers are more controlling with children who are less competent. The hypothesis that children who have accepting relationships with their caretakers will develop positive self-worth is consistent with attachment theory.

Table 2.

Model Used to Predict Child Psychopathology Totals

Step	R square	p value
demographic variables	7.58	.167
demo. + m-c variables	17.22	.057
mother rpt. acc/rej	8.03 (partial)	.0079
demo.+ m-c + self	18.25	.20
mother rpt. acc/rej	7.89 (partial)	.0097

Model B: The Prediction of Maternal Psychopathology

Preliminary analyses were conducted to determine the number of mothers with scores on the SCL-90R falling within the clinical range. Derogotis (1983), suggests "caseness" be defined as a T-Score above or equal to 63 on the global

stress index (using non-patient, female norms). Using this criteria, 12 out of 86 mothers (approximately 14%) had scores falling within the clinical range.

SEM analyses of model B did not yield an adequate fit of the data to the predicted model ($\chi^2_{24} = 39.83, p = .022$). The overall model was not considered an adequate fit although the path between mother self and maternal psychopathology was significant ($t = -3.908, \beta = -.553$).

The first step in the multiple regression analysis used to predict maternal psychopathology was nonsignificant (R square = 8.15, $p = .137$). That is, demographic variables alone did not significantly predict maternal psychopathology. Likewise, the second step, adding retrospective mother-child relationship variables (maternal reports of their own mother-child relationship in terms of independence encouraging, acceptance vs. rejection and degree of idealization) was also non-significant (R square = 11.0, $p = .226$). Finally, the self variables (esteem, and sociability, intimacy, and nurturance domains) were added to the model in the final step and maternal psychopathology was significantly predicted (R square = 38.51, $p = .0001$). Two variables within this model were significantly related to maternal psychopathology, maternal self-esteem and social competence ($p = .0015, p = .046$ respectively). These variables accounted for 12.48% of the variance in maternal psychopathology combined (see Table 3.)

Once again, these data offer little support for the mediating role of the self in the prediction of psychopathology from the mother-child relationship. As stated above, in order to support the mediating role of the self in the prediction of psychopathology from the mother-child relationship, the mother-child relationship must first be shown to predict psychopathology. Recollected assessments of mothers' relationships with their own mothers were not significantly predictive of current maternal psychopathology. Self variables, particularly self-esteem and social competence, were the best predictors of maternal psychopathology, supporting an alternative hypothesis of a direct influence of the self upon psychopathology. Because these data were collected at one time period, it is not possible to determine the direction of effects between maternal self and psychopathology. Social isolation, and likewise negative assessments of one's social competence, and negative self-esteem are as likely to be the result of higher rates of psychopathology as they are to precipitate psychopathology.

Interestingly, in comparing the results from models A and B, different sets of variables are most predictive for each age group. For children, the mother-child relationship variables significantly predicted psychopathology, whereas, self variables significantly predicted maternal

psychopathology. This age difference will be discussed further in the discussion section.

Table 3.

Model Used to Predict Mother Psychopathology Totals

Step	R square	p value
demographic variables	8.15	.137
demo. + m-c variables	11.00	.226
demo. + m-c + self	38.51	.0001
esteem	9.04 (partial)	.0015
social competence	3.44 (Partial)	.046

Model C: The Prediction of the Mother-Child Relationship

As with Model B, the SEM analyses for model C revealed a relatively poor fit of the data to the proposed model ($\chi^2_{43} = 72.94$, $p = .003$).

Multiple regression analyses were conducted for each of the mother-child relationship variables, mother-reported maternal control, child-reported maternal control, child-reported maternal acceptance/rejection, and mother-reported maternal acceptance/rejection. The analyses for each variable will be considered in turn.

The demographic variables used to predict mother-reported acceptance/rejection was nonsignificant (R square = 3.04, $p = .6$). Likewise, the addition of the retrospective mother-child variables also yielded a nonsignificant model (R square = 8.79, $p = .39$). However, one variable was significantly related to maternal acceptance/rejection, the degree to which mothers felt their own mothers were

independence encouraging versus overprotective ($p = .03$). Finally, at the third step, with the addition of maternal self variables, a significant prediction was obtained (R square = 21.94, $p = .054$). As in the previous step, independence versus overprotection in the first generation was related to maternal acceptance/rejection in the second generation ($p = .049$). In addition, maternal self-competence in the nurturance domain was also significant ($p = .014$). These variables independently accounted for 4.22% and 6.56% of the variance respectively. These data are summarized in Table 4.

The demographic step used to predict child-reported maternal acceptance/rejection was significant (R square = 13.99, $p = .014$). The only variable that approached significance in this model was gender, with girls reporting higher rates of maternal acceptance than boys ($p = .057$, mean for boys = 92.8, mean for girls = 83.7, high scores indicate increased rejection or less acceptance).

Table 4.

Model Used to Predict Mother PARQ Totals

Step	R square	p value
demographic variables	3.04	.64
demo. + m-c variables	8.79	.39
demo. + m-c + self	21.94	.054
indep/overprotect.	4.22 (partial)	.049
nurturance (self)	6.56 (partial)	.014

The second step, that including retrospective reports of the first generation mother-child relationship, was also significant (R square = 17.15, $p = .03$). In addition to gender, which remained significant ($p = .05$), independence encouraging versus overprotection in the retrospective mother-child relationship approached significance ($p = .09$). These two variables accounted for 6.95% of the variance in this model. The final step for this variable, that including mother self variables, was nonsignificant (R square = 19.40, $p = .11$). These data are summarized in Table 5.

Table 5.

Model Used to Predict Child PARQ Totals

Step	R square	p value
demographic variables	13.99	.014
gender	3.96 (partial)	.050
demo. + m-c variables	17.15	.030
gender	3.89 (partial)	.050
indep./overprot.	3.06 (partial)	.093
demo. + m-c + self	19.40	.11

All three steps in the regression analysis used to predict mother reported control were significant. However, only demographic variables were significantly related to maternal control at each step. In each case, SES and race were significantly related to maternal control, no other variables were significant. SES was negatively related to mother-reported control. That is, higher SES levels were related to lower rates of maternal control. Mothers of black

children rated themselves as more controlling than mothers of white children (mean for black mothers = 22.2; mean for white mothers = 19.6). Please refer to Table 6 for further information.

Table 6.

Model used to Predict PRPBI Totals

Step	R square	p values
demographic variables	34.84	.0001
SES	7.59 (partial)	.0029
race	8.54 (partial)	.0016
demo. + m-c relationship	38.60	.0001
SES	8.9 (partial)	.0012
race	3.9 (partial)	.027
demo.+ m-c rel.+ self	39.94	.0001
SES	9.7 (partial)	.0009
race	3.1 (partial)	.05

Finally, a multiple regression analysis was also conducted in order to predict child-reported maternal control. As with mother-reported control, all three steps in the regression analysis were significantly predictive of CRPBI scores, and within each step demographic variables alone were significantly related to child-reported control. In contrast to the data reviewed above, SES was not among the significant variables, however race was. In two of the steps, gender also approached significance. Black children rated their mothers as more controlling compared to white children (mean for black children = 23.5; mean for white children = 21.2). Please refer to Table 7.

Little support for the predicted models and hypotheses were found. In fact, in the cases of control within the mother-child relationship and degree of acceptance versus rejection as reported by children, demographic variables account for the largest amount of variance. In the prediction of control, race is significant irrespective

Table 7.

Model used to Predict CRPBI Totals

step	R square	p value
demographic variables	24.40	.0001
race	13.37 (partial)	.0003
demo. + m-c relationship	26.42	.0009
race	7.37 (partial)	.0065
gender	3.09 (partial)	.07
demo.+ m-c rel. + self	26.76	.0112
race	6.39 (partial)	.013
gender	2.79 (partial)	.09

of the reporter, child or mother. Socioeconomic status is also significant in the prediction of maternal control from mothers' reports. Finally, gender is significantly related to children's reports of both maternal acceptance/rejection and control. The only other variables that appear important, beyond the demographic variables in the prediction of the mother-child relationship are, the degree to which mothers report their own mothers to have been independence encouraging versus overprotective and self-competence in the area of nurturance. Independence versus overprotection was related to both child and mother reports of maternal

acceptance/rejection. Mother's nurturance self-competence was significantly related to maternal reports of acceptance/rejection. Therefore, maternal control is best predicted by demographic variables, rather than either self or retrospective relationship variables. Maternal acceptance is best predicted by both retrospective mother-child variables and self variables in the case of maternal report, with neither set of variables mediated by the other. Finally, in the case of child-reported maternal acceptance the predicted model is again unsupported in that this variable is best predicted by mother-child relationship variables independently and the child's gender.

Post-Hoc Analyses of Maternal Control

Due to the relative importance of demographic variables in the prediction of maternal control from both child and maternal reports, two additional analyses were conducted. In order to examine the potential predictive ability of interactions between each of the demographic variables and the other variables of interest, one regression analysis was conducted for each control total (child report, maternal report). Because the models would include a large number of predictor variables when all interactions between demographic variables and mother-child and self variables were included, retrospective mother-child relationship and self variables were reduced using principle components analyses. That is, the variables 'independence encouraging

versus overprotection', 'acceptance/rejection', and 'idealization' were combined to form one variable labeled maternal history. The self variables, self-esteem, socialization, intimacy, and nurturance were also combined to form one variable, maternal self. This made it possible to reduce the number of variables in each model to 11 rather than 31.

One of the primary uses of principal components analysis is to reduce a large number of observed variables to a smaller number of factors (Tabachnick & Fidell, 1989). This is done through the production of several linear combinations of observed variables, with each linear combination forming a factor. For the purposes of the current investigation, only one factor was expected for each set of variables, maternal history and maternal self. As expected, the retrospective mother-child relationship variables and the mother self variables did form one factor each with variables having negligible correlation to other factors.

Both variables were significantly predicted (Maternal report, $R^2 = 39.72$, $p = .0001$; Child report, $R^2 = 27.19$, $p = .009$). Maternal report of control was significantly predicted by SES and race as above ($p = .03$, $p = .04$, respectively), and also by two interactions, SES by maternal self ($p = .05$) and gender by maternal history ($p = .006$). The influence of maternal self upon maternal control

was found to vary as a function of SES. Positive views of the self related to high rates of control in the mother-child relationship in lower SES groups, whereas positive views of the self led to average levels of control in higher SES groups. Likewise, low self scores led to high control in high SES groups, and average control scores in low SES groups. In addition, the influence of maternal history upon control within the mother-child relationship was influenced by the gender of the child. Generally, positive reports of maternal history led to higher rates of control, however, this trend was accentuated for boys.

As in previous analyses reported above, in the prediction of child-reported maternal control, race was significant ($p = .0008$). In addition, one interaction term, race by maternal history also significantly related to child reported maternal control ($p = .018$). Therefore, the influence of maternal history on child reports of maternal control was found to vary as a function of race. Positive maternal history led to similar control scores for each race, falling within the average range. However, low maternal history scores led to low rates of control for black mothers and high rates of control for white mothers. These interactions are diagramed in Figure III. The multiple regression results are summarized in Table 8.

Table 8.
Post-Hoc Analyses of Maternal Control

Maternal Report	R square	p value
full model	39.72	.0001
SES	3.93 (partial)	.03
race	3.47 (partial)	.04
ses*maternal self	2.98 (partial)	.05
gender*maternal history	6.55 (partial)	.0059
Child Report		
full model	27.19	.009
race	12.03 (partial)	.0008
race*maternal history	5.74 (partial)	.018

Because these analyses were not planned, the results must be interpreted cautiously. However, they point to the importance of demographic variables in understanding the role of the self and retrospective relationships in the prediction of maternal control.

Children's Psychopathology as a Predictor of Maternal Self

Multiple regression analyses alone were used to assess the last hypothesis, that children's adjustment would significantly predict mothers' self. All four maternal self variables were used: self-esteem, sociability, nurturance, and intimacy. For each assessment of maternal self, demographic variables were entered into the model first, followed by child psychopathology totals. Only one dependent variable, self-esteem, was significantly predicted (R square = 15.29, $p = .019$). However, demographic variables alone, SES and race, significantly contributed to the model ($p = .007, .049$, respectively). Child psychopathology did not significantly contribute to the model.

Figure 2.

POST-HOC INTERACTIONS FOR MATERNAL CONTROL

		Maternal Self		Maternal Report
		high	low	
SES	high	medium	high	
	low	high	medium	
		Maternal History		
		high	low	
Gender	female	medium	medium	
	male	high	low	
		Maternal History		Child Report
		high	low	
Race	black	medium	low	
	white	medium	high	

CHAPTER IV

DISCUSSION

Generally, the results of this study do not support the hypotheses. That is, little evidence was found for the mediating role of the self in the prediction of psychopathology or for the mediating role of the self in predicting continuity in mother-child relationships from one generation to another. In each model, influences between the independent and dependent variables were not mediated by other independent variables. In addition, the relative importance of demographic, mother-child, and self variables varied with the dependent variable that was predicted. Results will be summarized and discussed in reference to each sub-model and the stated goals of this study.

Model A: The Prediction of Child Psychopathology

As indicated above, children and their mothers did not perceive their relationships similarly. In fact, child reports and maternal reports of both acceptance/rejection and control could not be successfully combined to form either a single (mother-child relationship) construct or two (acceptance/rejection, control) constructs in the SEM analyses. Therefore, it is important to distinguish between child and maternal reports of the mother-child relationship.

Child psychopathology was best predicted, using multiple regression and SEM analyses, by maternal reports of acceptance/rejection in the mother-child relationship, with high levels of rejection relating to high levels of psychopathology. Although children's self-understanding contributed to the prediction of child psychopathology in the expected direction (negatively), it was not significant. Therefore, the mother-child relationship appears to be a better predictor of child psychopathology than children's self-concept and esteem and it is not mediated by child self-understanding. Those mothers who report themselves to be more rejecting of their children, also report their children to have higher rates of psychopathology. It is not possible, using these data, given that all the data were collected during one time period, to determine the direction of effects for this relationship. That is, it is possible that child psychopathology leads to higher rates of maternal rejection. Further research with data controlling for psychopathology and perceptions of acceptance/rejection across time would better address this issue.

Interestingly, children's views of themselves were best predicted by maternal rates of control and child reports of maternal acceptance/rejection, as indicated by SEM analyses. High levels of control in the mother-child relationship is related to lower levels of perceived self competence and esteem for children and high levels of perceived maternal

acceptance is related to high levels of perceived self-competence and esteem. It is likely that high levels of control in the mother-child relationship lead children to develop more negative assessments of self-competence, although it is also possible that less competent children require greater maternal control. Once again, the direction of effects can not be determined with these data. Further research is needed to explore this hypothesis. The finding that perceived acceptance predicts one's view of oneself is consistent with attachment theory and others described above.

To summarize the results for Model A, more support was gathered for the alternative hypothesis of a direct relationship from the mother-child relationship to child psychopathology than for the predicted, mediational hypothesis. These data point to the importance of maternal acceptance/rejection, based upon mothers' reports in the prediction of child psychopathology, and maternal reports of control and child perceptions of acceptance/rejection in the prediction of child self.

Model B: The Prediction of Maternal Psychopathology

In contrast to the model above, the retrospective mother-child relationship variables did not significantly predict maternal psychopathology. Whereas, mother-child relationship variables did significantly predict child psychopathology. The most important predictors of maternal

psychopathology were maternal self variables, particularly self-esteem and socialization. Once again, it is not possible to determine the direction of effects. It is possible that low self-esteem and negative assessments of one's social self-competence result from high rates of psychopathology.

These data also provide little support for the predicted model. In contrast, a direct influence of maternal self was found for maternal psychopathology. Mother's recollections of their own mother-child relationship did not predict mother's views of themselves or maternal psychopathology. One explanation for the lack of relationship between the retrospective mother-child relationship and mothers' current adjustment is that the self represents a current adaptation of the previous relationship. That is, mothers have likely come to understand the influence of their childhood relationships upon themselves and their current relationships so that it does not currently influence the way mothers feel about themselves. Similarly, given this line of reasoning, current experiences would be expected to more strongly impact mothers' views of themselves and adjustment. It is possible that the influence of the first generation mother-child relationship may have been greater in a different sample. This sample included many well educated mothers and very few mothers who obtained psychopathology scores within the

clinical range. Further research examining these relationships in clinical as well as more normative populations would be useful.

In comparing models A and B, child psychopathology is best predicted by the mother-child relationship whereas, in the previous generation, mothers' psychopathology is best predicted by their views of themselves. Given that mothers have most likely developed a firm sense of self and identity, whereas for children this understanding is more rapidly changing, it is possible that for children the self is not as stable a predictor of psychopathology. The mother-child relationship may be more stable and available information for children, whereas for mothers, their view of themselves rather than their view of their childhood relationships is more current and available. Following the reasoning presented above, adolescence would be an important age group to study in order to examine these hypotheses. Adolescents and young adults are in the process of identity development yet most either live with their parents or are still in close contact with parents. Therefore, the influence of the parent-child relationship and self-understanding could be hypothesized to be more equal in the prediction of current levels of psychopathology. These results and hypotheses point to the importance of cross-age research.

Model C: The Prediction of the Mother-Child Relationship

As stated above, mother and child reports of maternal acceptance/rejection and control were considered separately. Children's gender was significantly related to their reports of both variables. Boys tended to view their mothers as more controlling and rejecting, compared to girls. It is likely, given that boys have been noted to be generally more aggressive and less mature than girls (Maccoby & Jacklin, 1974; Pederson & Bell, 1970; Rutter, 1972b), that higher rates of maternal control for boys is adaptive. Mothers may be less likely to perceive themselves as more controlling with their sons if they see themselves as uniformly matching the amount of control exerted to the skills and behavior of the child. It is equally likely that mothers simply perceive their sons as requiring greater control, irrespective of the children's behavior. There is some evidence to suggest that mothers are generally less tolerant of negative behavior in males compared to females (see Eme, 1979).

In the prediction of maternal acceptance/rejection, mothers' assessments of the degree to which their own mothers were independence-encouraging versus overprotective was significant (this is true for both child as well as maternal reports of maternal acceptance/rejection). Other retrospective variables were not significant. Therefore, the quality of mother-child relationships in one generation was related to the quality of mother-child relationships in the

second generation. However, this prediction is complex in that independence encouraged in the first generation is related to acceptance in the second, not simply acceptance in generation one predicting acceptance in generation two.

Mothers' perceptions of their self-competence in the domain of nurturance was also significantly related to maternal reports of acceptance/rejection. It is possible that this relationship is due to reporter bias since mothers who report themselves to be accepting of their children are also likely to report themselves to be nurturant. Due to the fact that all of the data were collected within one time period, it is not possible to determine if women who view themselves as nurturant are in fact likely to become more accepting mothers. In fact, mothers who have developed a warm, accepting relationship with their children may use this information as indicating their competence in the nurturance domain.

Maternal control, assessed by children and mothers, was significantly predicted by demographic variables, particularly race and SES. In fact, in the initial analyses, demographic variables alone significantly predicted maternal control. Therefore, post-hoc analyses were conducted to examine interactions between the variables of primary interest and the demographic variables. In these subsequent analyses interactions involving maternal history and maternal self were significant.

Generally, these results suggest that mothers with positive histories with their own mothers are more controlling with their own children, compared to mothers with negative mother-child histories. However, mothers with positive histories exhibit high rates of control with their sons and more medium-range rates of control with their daughters. Negative mother-child histories are related to low rates of control for boys and medium-range rates for girls. In addition, using children's data, positive maternal histories are related to average rates of control for black and white mothers. However, negative maternal histories tend to be related to high rates of control for white mothers and low rates of control for black mothers. Finally, using maternal reports of control, the influence of maternal self upon control was found to vary as a function of socioeconomic status. Positive views of the self were related to medium rates of control in high SES mothers, but high rates of control in low SES mothers. The opposite is true in the case of more negative views of the self.

It is important to recognize that the amount of control exerted by mothers can be viewed as more or less adaptive depending upon the context in which she is raising her child and her child's skills. As stated above, boys may require increased use of control by their mothers due to their generally greater rates of aggression and less maturity, compared to girls. Likewise, increased levels of control may

be necessary in more dangerous neighborhoods which are typically inhabited by lower SES families. In this sample, black mothers and children fell disproportionately into the lower SES ranges (75% of black mother-child pairs fell into low SES groups). Taken together, the results suggest that high control within low SES groups is most likely to occur when mothers have positive views of themselves and positive assessments of their relationships with their own mothers. Likewise, more average rates of control are found in high SES groups under these same conditions. Positive maternal history and self predict positive mother-child relationships, in terms of control, in both high and low SES groups. However, maternal control must be evaluated with reference to the context in which the family lives.

Once again, the data examining this model also provide little support for the hypotheses. The strongest predictors of maternal control, using both child and maternal reports, were demographic variables. Post-hoc analyses did reveal significant interaction terms including maternal self and maternal history in the case of mothers' reports of control, and maternal history using children's reports of control. However, self variables were not found to mediate the influence of the mother-child relationship in the first generation upon mothers' relationship with their own children. A retrospective mother-child relationship variable as well as maternal nurturance self-competence were found to

be independently related to mother-reported acceptance/rejection. Neither variable was found to mediate the other. The mediating role of the self was also unsupported in the prediction of child-reported acceptance/rejection.

Discussion in Light of Stated Goals

The first goal of this study was not met. The self was not found to play a mediating role in the prediction of psychopathology from the mother-child relationship. In fact, the mother-child relationship alone was found to predict child psychopathology, whereas maternal self alone was found to predict maternal psychopathology.

The second goal of this study was to examine the influence of the mother-child relationship upon children's self. These data point to the importance of children's views of their mothers' acceptance and maternal reports of control. This study does support previous theory and literature which suggests that the mother-child relationship is an important predictor of children's views of themselves.

Some continuity in the quality of relationships across generations was observed. That is, retrospective reports of the degree to which mothers' mothers were independence-encouraging versus overprotective were significantly related to the degree of acceptance exhibited by mothers in their relationship with their own children. The more independence was encouraged in the first generation, the more accepting

mothers were found to be in the second generation. Further research is needed to examine the nature of this relationship. It may be helpful to examine other possible mediating variables, for example the meaning of these constructs (e.g. overprotective, accepting, rejecting etc.) for mothers and children. Simple parallels across the generations were not found, however, the first generation was found to influence the subsequent generation.

Finally, this study points to the importance of examining demographic variables. As shown here, demographic variables appear to strongly influence assessments of the mother-child relationship and mother's views of themselves. The quality of relationships must be understood within the context of these demographic variables.

Areas for Future Research

The limitations as well as the findings of this study point to several areas for further research. First, as stated above, very low rates of psychopathology were exhibited in this sample. In addition, this sample included a large number of well educated mothers. Both factors limit the generalizability of the results. In fact, it is possible that mechanisms accounting for continuity in relationships and the prediction of psychopathology are very different for clinical versus non-clinical samples (Rutter, 1989; Rutter & Garmezy, 1983). It would be useful to examine the relationships among these variables in a more extreme

population. An understanding of normal development is crucial in order to obtain a more complete understanding of variations from normative paths, however, the assumption that the processes accounting for each are the same, may be faulty. This study does point to continuity in relationships across generations, however, the transmission is not parallel. Independence-encouraging mothers in the first generation related to more accepting mothers in the second generation. Direct parallels from one generation to another were not found (acceptance in one generation to acceptance in the second). This may represent a more general change in societal attitudes regarding parenting across the generations with independence-encouraging being of greater value in the first generation and acceptance in the second. It is also possible that more complex pathways are characteristic of less extreme populations. The greater strength of continuity in more psychopathological groups compared to normal ones points to the importance of examining whether or not the same mechanisms are responsible for continuity in both cases (Rutter & Garmezy, 1983).

Second, further examination of other potential mechanisms is also needed. For example, this study only examined the role of self. Research examining one's view of relationships generally, or views of mother-child and father-child relationships specifically will also be useful. Likewise, it will be useful to examine the role of fathers.

This study only examined the role of the mother-child relationship. Fathers' contribution to children's self-understanding and psychopathology must also be examined. Direct influences of fathers (such as the role of paternal control and acceptance upon children's self-understanding and psychopathology) should also be examined in addition to indirect influences (such as fathers' influence upon mothers, who influence children's adjustment and self-understanding). Children's views of themselves in relation to their fathers warrants further study as does an examination of other potential mechanisms for continuity and the prediction of psychopathology.

One limitation of this study is the exclusive use of self-report data. Given the exploratory nature of this study, and the interest in assessing participants' understanding of their relationships and views of the self, the use of this methodology was justified. However, further research should incorporate behavioral as well as self-report assessments.

Finally, it is important to examine these relationships across time. That is, due to the fact that this study only utilized concurrent assessments of the variables, it was not possible to determine the direction of effects for those relationships found. Research examining these relationships across time, with the proper controls, will help to clarify these relationships. In addition, further research examining

bi-directional effects will also be useful. It is unlikely that unidirectional effects alone account for such complex relationships.

Conclusion

In conclusion, the results of this study do not support a mediating role for the self in the prediction of psychopathology or continuity across generations. However, the self, for mothers, was found to play an important role in relation to mothers' psychopathology and acceptance of their children. Children's self-perceptions were found to be related to their perceptions of their mothers' acceptance and mothers' assessments of the degree of control exerted in the relationship.

The mother-child relationship in the present generation was found to be related to child psychopathology, although this relationship was not mediated by children's self. Mothers' views of their relationships with their own mothers significantly related to their reports and their children's reports of their acceptance (versus rejection) in their relationships with their children. Finally, demographic variables were found to be predictive of the degree of control in the mother-child relationship. This finding points to the importance of studying the mother-child relationship within the context in which it occurs. What is positive within one environmental context may not be positive within another.

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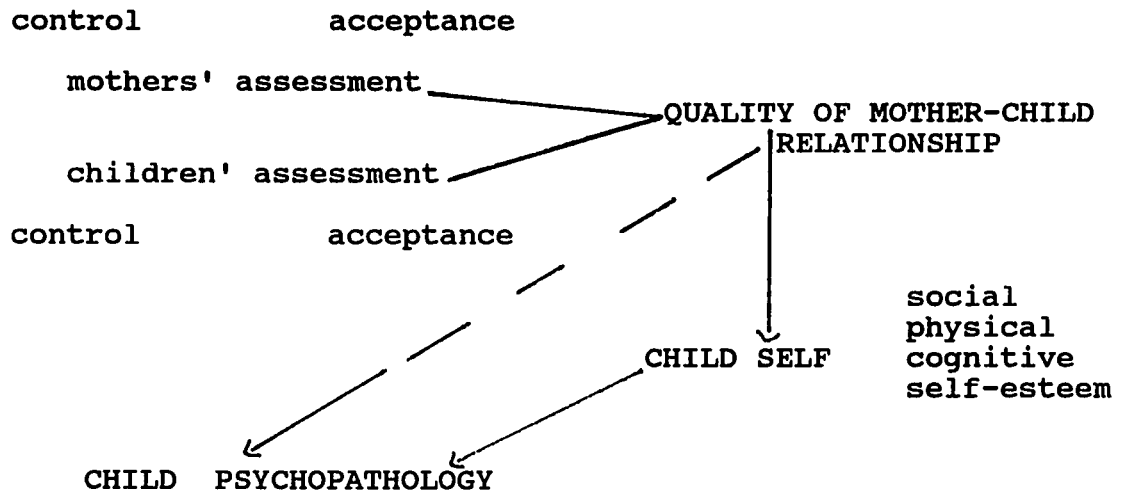
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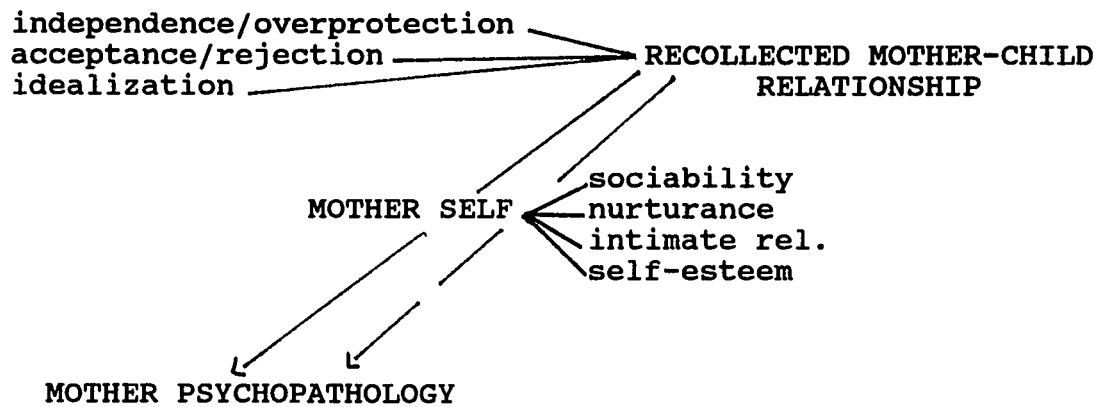
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APPENDIX A
 PREDICTED MODELS

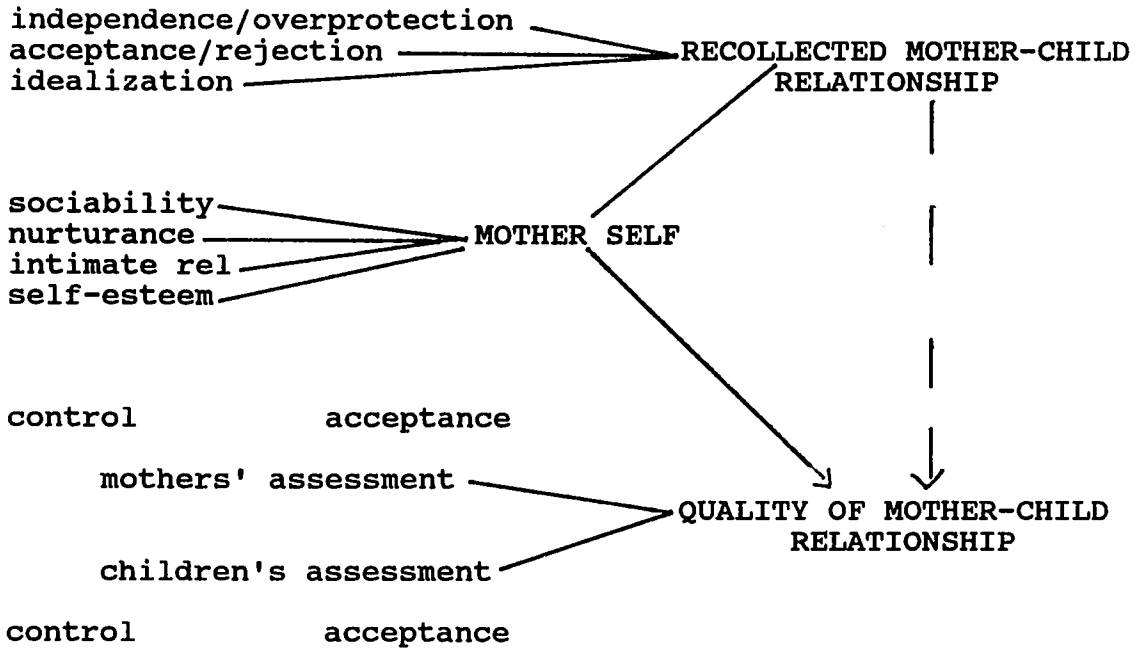
MODEL A:



MODEL B:



MODEL C:



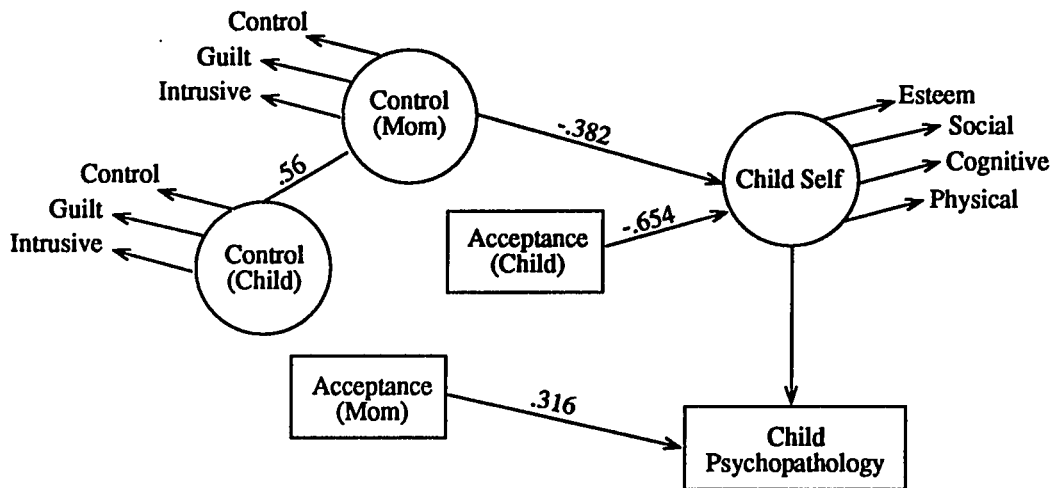
APPENDIX B
MEANS AND STANDARD DEVIATIONS

	general		black		white		male		female	
	X	sd	X	sd	X	sd	X	sd	X	sd
SCL-90 (T)	51.4	10	52	10	51	10	51.4	10	51.3	10
SELF (moms)										
social	2.99	.67	3.04	.55	2.96	.72	2.90	.66	3.08	.67
nurture	3.43	.54	3.30	.44	3.48	.57	3.36	.59	3.51	.47
intimate	2.97	.72	2.79	.70	3.04	.71	2.92	.73	3.02	.71
esteem	3.19	.53	3.26	.46	3.15	.56	3.28	.44	3.07	.62
MFP										
ind/over	46.5	9.8	46.8	8.9	46.4	10.2	47.0	9.4	45.9	10.3
acc/rej	40.1	9.1	42.9	6.1	38.9	9.9	41.5	8.8	38.5	9.2
idealiz.	18.5	6.4	22.8	6.0	16.5	5.6	20.2	6.4	16.4	5.7
PRPBI	20.4	2.7	22.2	2.8	19.6	2.4	20.9	2.8	19.8	2.7
CRPBI	21.9	2.8	23.5	2.5	21.2	2.6	21.9	2.9	21.9	2.7
PARQ(moms)	93.1	14.2	93.7	14.9	92.7	13.9	92.7	14.9	93.4	13.4
PARQ(kids)	88.7	17.2	94.4	20.6	86.0	14.9	92.8	18.1	83.7	14.9
CBCL (T)	54.9	10	54.7	10	55.0	10	55.6	10	54.1	10
SELF (kids)										
cognitive	3.00	.62	2.75	.60	3.13	.60	2.82	.57	3.24	.61
social	3.09	.62	2.80	.82	3.23	.46	2.99	.63	3.21	.60
physical	2.85	.64	2.89	.64	2.83	.64	2.89	.64	2.80	.64
esteem	3.07	.61	2.75	.69	3.22	.50	2.98	.61	3.19	.59

Measures

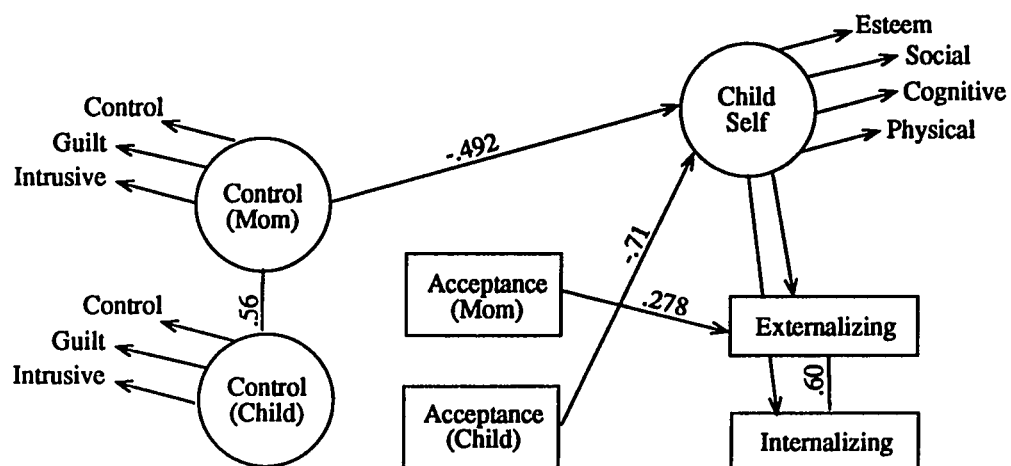
- 1 socioeconomic status (mothers' education level in years)
- 2 total psychopathology score for mothers
- 3 sociability - mothers
- 4 nurturance - mothers
- 5 intimate relationships - mothers
- 6 self-esteem - mothers
- 7 MFP scale - independence-encouraging/overprotective
- 8 MFP scale - accepting/rejecting
- 9 MFP scale - idealization
- 10 mother-reported maternal control
- 11 mother-reported maternal acceptance
- 12 child-reported maternal acceptance
- 13 child-reported maternal control
- 14 child psychopathology - internalizing
- 15 child psychopathology - externalizing
- 16 cognitive competence - children
- 17 social competence - children
- 18 physical competence - children
- 19 self-esteem - children
- 20 child psychopathology - total score

Appendix D
SEM Analysis of Model A



$\chi^2_{69} = 74.87$ $p = .145$
 Goodness of fit index = .897
 Adjusted goodness of fit = .851
 Root Mean Square Residual = .079

Estimated Path	Standard coefficient	t score	Standard error
Mother-report control to self	-.382	-2.67	.079
Child-report acc/rej to self	-.654	-3.66	.081
Mother-report acc/rej to Psychopathology	.316	3.09	.102
Self to Psychopathology	.163	-1.36	.263



$\chi^2_{67} = 79.79$ $p = .136$
 Goodness of fit index = .893
 Adjusted goodness of fit index = .833
 Root Mean Square Residual = .077

Estimated Path	Standard coefficient	t score	Standard error
Mother-reported control to self	-.492	-2.521	.108
Child-reported acceptance to self	-.710	-3.650	.088
Mother-reported acceptance to Externalizing	.278	3.31	.082
Child-self to Externalizing	-.130	-1.09	.258