This study examined the relationship between a mother's childrearing history, perceived social support, and maternal empathy and the quality of engagement with her child during play. The study also focused on the roles of social support as a moderating variable and maternal empathy as a mediating variable in the relationship. Participants were 77 mother-infant dyads of predominantly African American and Hispanic origin, all qualifying for federal financial assistance benefits and living in inner-city neighborhoods. Infants were approximately 24 months of age. Mother-infant play using a standard set of age-appropriate toys was videotaped at the mother's residences. Mothers also completed questionnaires regarding perceived social support, perceived relationship with their mother in childhood, and their empathic understanding of others' emotional experiences. The major findings of the study indicated that many mothers engaged in play supporting their child's cognitive, social, and emotional development. Mothers demonstrated a modest level of restrictive behaviors, more often restricting their children by using more intrusive control than prohibition. High social support protected against negative effects of childhood rejection on mothers' play. Low social support exacerbated negative effects of childhood rejection on maternal play and affect. Low social support and high acceptance produced the optimal condition for maternal play. When mothers had high support and high rejection, they demonstrated somewhat more positive and negative affect than mothers with high support and high acceptance. Maternal empathy did not mediate the relationship between parental acceptance-rejection and maternal behavior but uniquely predicted maternal behavior. (Definitions of maternal behaviors are appended.) (KB)
Quality of Mothers' Engagement With Their Toddlers:
The Roles of Childrearing History, Social Support, and Empathy

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INTRODUCTION

In the past 20 years, developmental researchers have become increasingly interested in the factors that influence parenting behavior. Belsky's (1984) pioneering article on the determinants of parenting concluded that parenting practices are jointly influenced by the psychological resources of the parent, the individual characteristics of the child, and the larger social context in which the parent-child relationship exists (e.g., social networks).

In this study, three constructs are examined in relation to parenting: childrearing history, social support, and empathy. Research on the determinants of parenting suggests that an adult's childrearing history has a strong influence on later parental functioning. When early developmental experiences are nurturing and supportive, an individual develops emotional resources necessary to engage in responsive parenting interactions, thus promoting positive child development. Social support has also been linked to better parenting, especially among families living in poverty (Garrett, Ng'andu, & Ferron, 1994). Finally, empathy is another important component of parenting (Miliora, 1993), in that empathic parents are better able to identify their children's feelings and acknowledge their children's experience. An individual's capacity for empathy may develop partly from early developmental experiences (Eisenberg & McNally, 1993; Feshbach, 1987).

This study contributes to the literature in two ways. First, it extends research on the determinants of parenting by considering the unique and joint contributions of childrearing history, social support, and empathy to maternal engagement. Second, it focuses on parenting determinants in a community sample of low-income, minority mothers rather than on a clinical sample or on a low-risk, Euro-American sample of middle-class mothers.

STUDY AIMS

In the present study, we sought to:

- Build on existing studies which have explored the intergenerational transmission of parenting behavior by focusing on a community sample of low-income, inner city, minority mothers.

- Explore relations between mothers' perceptions of parental acceptance and rejection, mothers' perceived social support, maternal empathy, and the quality of mother-child interaction.

- Examine the variables that exert both a direct and indirect influence on mother-child interaction.

- Examine contextual factors such as age, maternal education, language dominance, and ethnicity in relation to the quality of mother-child interaction.
RESEARCH QUESTIONS

Specifically, the questions that this study sought to answer were:

❖ To what extent are a mother’s childrearing history, perceived social support, and maternal empathy associated with the quality of her engagement with her child during play?

❖ Does social support moderate the relationship between perceived acceptance-rejection and maternal engagement? That is, does the relationship between perceived acceptance-rejection and maternal engagement vary under different conditions of social support?

❖ Does maternal empathy mediate the association between perceived acceptance-rejection and maternal engagement? That is, is the association between childrearing history and maternal engagement due to the relationships between childrearing history and empathy and between empathy and maternal engagement?

PARTICIPANTS

❖ Participants were 77 ethnically diverse, mother-infant dyads of predominantly African American and Hispanic origin.

❖ All mother-infant dyads qualified for federal financial assistance benefits and lived in inner-city neighborhoods, (i.e., on the Lower East Side of Manhattan, Brooklyn and the Bronx).

❖ Mothers ranged from 16 years to 45 years, with a mean age of 23 years.

❖ Infants were approximately 24 months of age. They ranged from 21 months to 27 months at the time of the visit. There were 34 female infants and 43 male infants.

VIDEOTAPING PROCEDURE

Mothers were videotaped in their residences by a pair of researchers. Dyads were presented with a standard set of age-appropriate toys, consisting of:

- play stove, pots, spoon, spatula, plastic food.
- boat with a removable cabin/house, 1 male figure, 1 female figure, and 4 pairs of animals.

Mothers were instructed to interact with their children as they normally would, to face the camera, and to try to ignore the researchers during filming. They were instructed to use only the toys provided for 10-minutes. Upon completion of the session, mothers received $20.00 and a copy of the videotaped play session, and they were given a packet of questionnaires to fill out and mail back to the researchers.
MEASURES

Mothers completed the following questionnaires:

- Social Support Resources Instrument (SSR; Vaux, 1982), measuring the perceived amount of support (i.e. practical, advice/guidance, & emotional) received from others. Responses were based on a 5-point Likert scale (1=receive no support & 5=receive much support).

- Parental Acceptance-Rejection Questionnaire (PARQ-M), designed to tap adults’ perceptions of their relationship with their mother in childhood (Rohner et al., 1978). Responses were based on a 4-point Likert scale (1 = strongly disagree & 4= strongly agree).

- Mehrabian and Epstein’s (1971) Emotional Empathy scale, measuring empathic understanding of others’ emotional experiences. Responses were based on a 4-point Likert scale (i.e., 1 = strongly disagree and 4=strongly agree).

CODING PROCEDURES

- A detailed transcription was made of each videotaped mother-child session.

- Each coded “event” was defined as a discrete action and/or verbalization made by the mother and recorded on the transcript.

- Coding was done by reading along on the transcript while viewing the videotape to ensure that the context of the behavior or verbalization was properly understood by the coder.

- Coding of the videotapes was done by a single researcher with a second researcher coding every fifth tape. Interrater reliability, based on Pearson product-moment coefficients, was very good (.85 to 1.00).

CODING OF MATERNAL PLAY BEHAVIOR

Maternal play behavior was coded using a system developed specifically for this study that borrowed from various extant studies on parenting and children’s play. 8 maternal behaviors were coded; 6 were collapsed into the category of Responsive Play and 2 were grouped into the category of Restrictive Behavior (see Appendix A).

- Responsive Play included both sophistication of the mothers’ play (i.e., symbolic or nonsymbolic) and the quality of their engagement (i.e., prompt, support, demonstrate). The following 6 behaviors were included: Symbolic Prompt, Nonsymbolic Prompt, Symbolic Support, Nonsymbolic Support, Symbolic Demonstration, & Nonsymbolic Demonstration

- Restrictive Behavior included the 2 behaviors of Intrusive/Control & Prohibition

CODING OF MATERNAL AFFECT

Maternal Positive and Negative Affect were coded for the 10-minute play session based on a global rating scale. Mothers’ Positive and Negative Affect during the play interactions were each coded on 5-point Likert scales, ranging from 1=not observed to 5=constantly observed.
Coding was done independently by two trained research assistants. Interrater reliability was established using Pearson-product moment correlations. For Positive Maternal Affect, the Pearson-product moment correlations was .69 (p<.05) and for Negative Maternal Affect, the correlation was .86 (p<.01).

ANALYSES

- First, descriptive statistics and factor analyses were calculated.
  - Descriptive statistics were calculated on all maternal outcome and predictive measures.
  - Reliability analyses and factor analyses were carried out on all scales to establish their psychometric properties.
  - Factor analyses were also conducted on maternal play behaviors.

- Second, relations between the demographic variables of age, educational attainment, child’s gender, dominant language in the mother’s home, and mother’s race and all predictor and outcome measures were examined to determine whether they should be entered as covariates.

- Third, zero-order correlations were calculated between and among the predictor and dependent variables (see Table 1).

- Finally, hierarchical multiple regression analyses examined the unique and joint predictive relations between independent measures (i.e., social support ratings, PARQ-M, empathy) and maternal engagement measures (i.e., responsive play behavior, restrictive behavior, and maternal affect). Procedures recommended by Cohen and Cohen (1983) were used to explore the nature of the interaction between the PARQ-M Composite and social support on maternal play and affect.

RESULTS

Descriptive Statistics and Factor Analyses of Maternal Play Behaviors

- Overall, mothers varied widely in the number of discrete behaviors displayed during play (Range=16-242; Mean=93.00, SD=39.00).

- A principal components analysis was conducted on 5 maternal play behaviors (nonsymbolic play behaviors were excluded from final analysis): Symbolic Prompt, Symbolic Demonstration, Symbolic Support, Intrusive/Control, and Prohibition. 2 main factors were produced, accounting for 66.74% of the variance in maternal behaviors.

- Factor 1 was named Symbolic Responsive Play and included Symbolic Prompt, Symbolic Demonstration, and Symbolic Support. Factor 2 was named Restrictive Control and included Intrusive/Control and Prohibition.
Reliability and Factor Analyses of Independent Measures

- Reliability on the PARQ-M was excellent (coefficient alpha = .96). Factor analysis produced 2 factors: Warmth/Acceptance and Rejection. The Composite score, reflecting high rejection and low acceptance, was used to simplify subsequent analyses.

- Reliability on the Social Support Resources scale was excellent (coefficient alpha = .89 to .97). Factor analysis yielded 1 factor, Total Social Support. The total mean score was used in subsequent analysis.

- Reliability on the Emotional Empathy Scale was excellent (coefficient alpha = .83). Factor analysis yielded 2 factors, named Emotional Understanding and Vicarious Emotional Experience, which were used in subsequent analysis.

Hierarchical regression analyses


I. Results of Regression Analysis for Parental Acceptance-Rejection, Social Support, and Symbolic Support

- A significant main effect for the PARQ-M Composite was found (Beta = -1.06, Partial = -.35, p < .01), indicating that higher perceived rejection is associated with lower levels of Symbolic Support in play.

- There was a significant main effect for maternal social support on Symbolic Support (Beta = -.82, Partial = -.30, p < .05), indicating that high social support is associated with lower levels of Symbolic Support in play (contrary to expectation).

- The main effects are qualified by the significant interaction effect of PARQ-M x Social Support. When the interaction term of PARQ-M x Social Support was entered into the model, the R² change was significant [F(1, 67) = 6.37, p < .05]. Overall, 20% of the variance (Adjusted R² = 14%) in Symbolic Support was explained by this set of variables.

- The nature of the interaction effect indicates that high social support appears to buffer the effects of high perceived rejection on Symbolic Support (see Figure 1).

II. Results of Regression Analyses for Parental Acceptance and Rejection and Social Support on Maternal Affect (Positive and Negative)

- Significant main effects were found for the PARQ-M Composite on both Negative and Positive maternal affect (β = .78, Partial = .24; β = -.88, Partial = -.27; p ≤ .05), indicating that high perceived rejection (high PARQ-M) was associated with more Negative and less Positive maternal affect in play.
Significant main effects were found for social support on both Negative and Positive maternal affect ($\beta = .71$, Partial=.24; $\beta = -.80$, Partial=.27 $p < .05$). Contrary to expectation, higher social support was associated with more Negative and less Positive maternal affect in play.

PARQ-M x Social Support significantly predicted Negative affect, over and above child’s gender and educational attainment. PARQ-M x Social Support also significantly predicted Positive maternal affect.

The nature of the interaction effect indicates for mothers with low support, high perceived rejection (i.e., high PARQ-M) was associated with slightly more Negative affect and slightly less Positive affect than low perceived rejection (See Figure 2).

However, a counterintuitive finding emerged for mothers with high social support; those who had high perceived rejection had much less Negative affect and much more Positive affect than those who had high perceived acceptance.

III. Regression Analyses for Parental Acceptance-Rejection, Social Support, and Restrictive Control

There were no main effects or interaction effects of the PARQ-M Composite score and social support on Restrictive Control, after controlling for educational attainment.

PARQ-M x Social Support did not predict Restrictive Control.

However, educational attainment alone contributed uniquely and significantly in predicting Restrictive Control in play ($\beta = -.29$, Partial=.29, $p < .05$), in that mothers with higher levels of education used less Restrictive Control with their children than mothers with less education.

IV. Results of Regression Analyses for Empathy and PARQ-M on Maternal Engagement

In order to test whether the association between the PARQ-M and maternal play outcomes was mediated by empathy, procedures recommended by Baron and Kenny (1986) were employed.

There was no mediation effect of empathy on the relationship between parental acceptance-rejection and play, because empathy was not significantly associated with the PARQ-M.

However, Maternal Empathy (Emotional Understanding) uniquely predicted Intrusive/Control, above and beyond educational attainment ($\beta = -.36$, Partial=.37, $p < .01$).

Summary of Major Findings

I. Variability in Mothers’ Play

Many mothers engaged in play that supports the development of their child’s cognitive, social, and emotional skills. For example, mothers used considerably more symbolic than nonsymbolic play and used nearly 3 times as many responsive play behaviors as negative behaviors.

Nonetheless, mothers in this study demonstrated a modest level of restrictive behaviors with their children. They more often restricted their children by being intrusive or asynchronous.
than by refusing to allow children to engage in activities (i.e., used more Intrusive/Control than Prohibition).

II. Social support as a Moderator
Social support influenced the relationship between childrearing history and maternal engagement in the following ways:

1) high social support protected against the negative effects of a rejecting childhood history on mothers’ play;

2) low social support exacerbated the negative effects of childhood rejection on maternal play and maternal affect;

3) contrary to expectation, low social support and high acceptance produced the optimal condition for maternal play;

4) when mothers had high support and high rejection, they demonstrated somewhat more positive and less negative affect than mothers who had high support and high acceptance, contrary to expectation.

III. Unique and Joint Effects of Maternal Empathy

Contrary to the hypothesis, maternal empathy was not found to mediate the relation between parental acceptance-rejection and maternal behavior.

However, maternal empathy uniquely predicated negative maternal behavior. Mothers who rated themselves as high on “understanding others’ emotions” displayed significantly less Intrusive/Control with their children.

CONCLUSION

Parenting is multiply determined. There are direct and indirect pathways that influence the quality of mothers’ engagement with their toddlers. While early childrearing experiences play a role in explaining subsequent parenting ability, they do not sufficiently account for all of the variability in mothering. Social support interacts with childrearing history to either protect the parenting system or increase its vulnerability. Other variables, such as empathy, appear to exert a more direct, positive influence on parenting.

The influence of social support on parenting varied under different conditions. High social support protected against the negative effects of a rejecting childhood history on mothers’ play, suggesting that the parenting system is resilient in the face of a single threat (Belsky et al., 1989). Low social support exacerbated the negative effects of childhood rejection on maternal play and maternal affect, suggesting that in cases of multiple threats (e.g., poverty, rejecting childhood history, low social support), the parenting system is vulnerable (Halpern, 1990; Sameroff & Fiese, 2000). Moreover, in certain cases, social support was negatively related to parenting, pointing to the need to examine how stress and conflict may temper the benefits of support networks.
There was considerable variability in maternal behavior during play with their children. Despite research that indicates that poverty is associated with more punitive parenting practices and less responsive engagement, mothers in this study engaged in a wide range of behaviors with their children and displayed more symbolic, responsive behavior than restrictive behavior on average. These findings challenge traditional characterizations of Hispanic and African-American parenting as authoritarian and controlling. Overall, the results speak to the importance of looking at within-group variation when studying mother-child interaction in a low-income sample.

Most importantly, this study highlights the complex relationship between social support and parenting. Understanding how particular aspects of social support can help or hinder parenting will go a long way in helping clinicians and researchers promote healthier mother-child relationships among low-income, urban families.

FUTURE DIRECTIONS

Future research should explore factors that interact with social support to either enhance or attenuate its positive effects on parenting, e.g., stress, conflict, coresidence of network members, or poverty.

Future research should also examine the unique and joint effects of parental acceptance-rejection from fathers, as well as from other significant parent figures (e.g., uncles, grandmothers).

In order to understand how characteristics of children influence mother-child interactions, a longitudinal study of mother-child play relations across the first three years is currently being conducted with a focus on bi-directional effects in mother-child play.

TABLE 1
Zero-Order Correlations Between Maternal Outcome Measures and Predictors

<table>
<thead>
<tr>
<th></th>
<th>PARQ-M Composite</th>
<th>Social Support</th>
<th>Emotional Understanding Factor</th>
<th>Vicarious Emotional Experience Factor</th>
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<tr>
<td><strong>Symbolic Responsive Factor</strong></td>
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<td>Symbolic Prompt</td>
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<td>Symbolic Support</td>
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<td>-.05</td>
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<td>Symbolic Demonstration</td>
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<td>.04</td>
<td>-.05</td>
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<td><strong>Restrictive Control Factor</strong></td>
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<tr>
<td>Intrusive/Control</td>
<td>.03</td>
<td>.06</td>
<td>-.25*</td>
<td>.09</td>
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<tr>
<td>Prohibition</td>
<td>-.03</td>
<td>.00</td>
<td>-.38**</td>
<td>.10</td>
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<tr>
<td><strong>Positive Maternal Affect</strong></td>
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<tr>
<td>Negative Maternal Affect</td>
<td>.01</td>
<td>.02</td>
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*p<.05; **p=.001
High social support appears to buffer the effects of high perceived rejection on Symbolic Support.

For mothers with low social support, those who experienced perceived rejection had more negative affect compared to those who experienced their mothers as accepting. Counterintuitively, for mothers with high support, those who perceived their mothers as accepting showed more negative affect than those who experienced their mothers as rejecting.
APPENDIX A
DEFINITIONS OF MATERNAL BEHAVIORS

Responsive Play Behaviors

Sophistication of play

☐ NONSYMBOLIC PLAY

Mothers received a code of Nonsymbolic play when they used concrete play actions that were beyond simple exploration but which did not meet the criteria for pretense play. Examples include a) using objects or directing the child to use objects in a functional manner, b) combining objects together in a non-logical manner (putting elephant in pot), and c) grouping objects together in concrete ways (stacking food).

☐ SYMBOLIC PLAY

Mothers received a code of Symbolic Play if they prompted, demonstrated, or supported their child’s use of pretense play (as outlined by Belsky and Most, 1981). For example, mothers might demonstrate vicarious play by walking the giraffe up the ramp, or prompt their child to direct play toward an inanimate other by saying, “give the elephant some food”, or support their child’s use of a pot as a hat (e.g., “you’re putting the pot on your head like a hat!”).

Quality of engagement

☐ PROMPT

Parent guides or attempts to engage child in play in a manner that is contingent and appropriate to the child’s previous activity or verbalization. It may also be an attempt to focus an unengaged child. Here, there is some suggestion that a child engage in an activity or join parent in an activity, rather than acting on her own for the child’s benefit (as in Demonstration). In addition, the parent may also frame a symbolic (or non-symbolic) play behavior to the child (e.g., “tastes good” or “it’s hot”).

☐ DEMONSTRATION (DEM)

Mother carries out an action that implicitly or explicitly is meant to show the child how to use the play materials. Mother does so in a manner that is appropriate and contingent on the child’s previous activity, or directed toward an unfocused child. Often, DEM is coded when mother is using gestures rather than verbalizations. However, if the mother uses a vocalization that illustrates the gesture (e.g., eating from the plate and saying “mmm, mmm”), this is considered a DEM.

☐ SUPPORT (SUPP)

Parent maintains or supports what child is already doing in play. Does not expand on the play or try to take it to a new level. Rather, parent encourages what child is already doing through verbalizations and/or gestures. In verbalizations, this may be seen as a reformulation of the child’s action or verbalization. In gestures, this is usually seen in the parent’s imitation of the child’s action or in a gesture that directly maintains the child’s play (e.g., mom eats when the child feeds her).

Restrictive Behaviors

☐ INTRUSIVE/CONTROL (CON)

Mother controls the choice of play materials, the manner with which the toys are used, and/or the timing of play, while the child is already engaged in play. This may include telling the child not to use a toy in a particular way or taking a toy away from a child and showing them the “right” way to use it. This may also include putting away toys or moving on to the next play activity abruptly before the child is ready. Although the mother’s intention may be to engage the child in activities involving the play materials, she carries this out in an intrusive or controlling manner. This interaction is often asynchronous; that is, the mother’s behavior is often not contingent on what the child is doing.

☐ PROHIBITION (PRO)

Parent prohibits the child from engaging in an activity involving the play materials. This may be done overtly, such as taking away a toy or preventing a child from using a toy. It may also be done in more subtle ways, such as when the parent discourages symbolic play or engages in negative teasing. PRO is also coded when the mother physically circumvents a child’s attempt to initiate an activity.
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