

**RELATIONS AMONG INTERPARENTAL RELATIONSHIP QUALITY,
MATERNAL DEPRESSIVE SYMPTOMS, PARENTING IN THE HOME
ENVIRONMENT, AND PRE-SCHOOL CHILD BEHAVIOR
IN AFRICAN AMERICAN, LOW-INCOME, SINGLE-MOTHER FAMILIES**

by

Solveig Spellnes Peters

BA, Knox College, 1973

MAEd, San Diego State University, 1983

MSW, University of Pittsburgh, 2003

Submitted to the Graduate Faculty of the School of Social Work

in partial fulfillment

of the requirements for the degree of Doctor of Philosophy

University of Pittsburgh

2007

UNIVERSITY OF PITTSBURGH
SCHOOL OF SOCIAL WORK

This dissertation was presented

by

Solveig Spellnes Peters

It was defended on

January 26, 2007

and approved by

Aurora Jackson, Ph.D., School of Social Work

Helen Petracchi, Ph.D., School of Social Work

Joan Vondra, Ph.D, Psychology in Education

Dissertation Director: Gary Koeske, Ph.D., School of Social Work

Copyright by Solveig Spellnes Peters
2007

**RELATIONS AMONG INTERPARENTAL RELATIONSHIP QUALITY,
MATERNAL DEPRESSIVE SYMPTOMS, PARENTING IN THE HOME
ENVIRONMENT, AND PRE-SCHOOL CHILD BEHAVIOR
IN AFRICAN AMERICAN, LOW-INCOME, SINGLE-MOTHER FAMILIES**

Solveig Spellnes Peters, PhD

University of Pittsburgh, 2007

Extensive literature links interparental relationship quality, particularly coparent conflict, with child behavior problems. Evidence suggests associations between and among interparental discord related to child-rearing disagreements, parenting difficulties, maternal depressive symptoms and child functioning. Experts assert that children function best when their biological parents have a stable marital relationship, and that interparental conflict can jeopardize the stability of the marriage, potential for marriage and the continuation of father involvement. However, the preponderance of such research has investigated White, middle-class, married or divorced families. Little is known about interparental relationship quality, family moderating factors and behavior problems of young children in African American, low-income, single-mother-headed families. Exploration of this problem is important because early childhood behavioral problems can persist and can contribute to children's academic underachievement and societal maladjustment.

Grounded in the ecological and risk and resilience theoretical perspectives, this quantitative, cross-sectional survey design study investigated associations among interparental relations, maternal depressive symptoms, maternal parenting, and pre-school child behavior problems in African American, low-income, single-mother-headed families. With the cooperation of the Allegheny County Assistance Office, a randomly selected group of 100

mothers and their 3- or 4-year old children, participated in this study. This study used the Time 1 data from an NIMH-funded longitudinal study with Dr. Aurora Jackson as principal investigator. Hierarchical regression analyses were used.

Contrary to research with White families, greater mother-reported interparental relationship problems were not associated with more child behavior problems. As hypothesized, fewer maternal depressive symptoms and more optimal maternal parenting were associated with fewer child behavior problems. Controlling for frequency of father contact did not affect relationships in the model. A post hoc finding showed that greater father contact was associated with fewer internalizing behavior problems. Neither fewer maternal depressive symptoms nor more optimal maternal parenting buffered the association between poor interparental relations and child behavior problems. These findings suggest further investigation particularly considering the extensive financial investments and programs funded by the African American Healthy Marriage Initiative. These programs intend to encourage marriage and strengthen poor families, yet have scant research about Black nonmarital, coparent relationships from which to inform these efforts.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	x
1. STATEMENT OF THE PROBLEM	1
1.1. Introduction.....	1
1.2. Background	3
1.2.1. Increases in single mother-headed families bring legislative action.	3
1.2.2. Interparental relationship quality.	5
1.3. Significance.....	10
2. REVIEW OF THE LITERATURE	13
2.1. Ecological Perspective	13
2.2. Risk and Resilience Perspective	16
2.3. Maternal Depressive Symptoms and Child Behavior	20
2.4. Parenting in the Home Environment and Child Behavior	22
2.5. Father Involvement	26
2.6. Research Hypotheses	29
3. RESEARCH DESIGN OVERVIEW	31
3.1. Sample.....	31
3.2. Procedure	31
3.3. Measures	33
3.3.1. Child behavior problems.....	33
3.3.2. Mothers' satisfaction with fathers' parenting.	35
3.3.3. Interparental conflict.	36
3.3.4. Maternal depressive symptoms.....	36
3.3.5. Parenting observations rating survey of the EC-HOME Inventory.	37
3.3.6. Frequency of father contact.	39
3.3.7. Background variables.....	40
3.4. Human Subjects	41
3.5. Data Collection	41
4. RESULTS	42
4.1. Description of the Sample.....	42
4.2. Descriptive Analyses	44
4.2.1. Outcome variables: Child Behavior Problems (BPI) and subscales.	46
4.2.2. Predictor variables: Mother's Satisfaction with Father's Parenting and Mother's Perception of Interparental Conflict.....	48
4.2.3. Moderator variables: Maternal depressive symptoms and maternal parenting. ...	49
4.2.4. Control Variable: Frequency of Father Contact.....	51
4.3. Bivariate Correlations	51
4.4. Multiple Regression Analyses	56
4.4.1. Hypothesis 1.....	62
4.4.2. Hypothesis 2 _a	62

4.4.3.	Hypothesis 2 _b	62
4.4.4.	Hypothesis 3 _a	63
4.4.5.	Hypothesis 3 _b	63
4.5.	Additional Findings	63
4.6.	Exploratory Analyses.....	65
5.	DISCUSSION	69
5.1.	Summary of Findings.....	69
5.2.	Study Limitations.....	79
5.3.	Policy and Practice Implications.....	81
5.4.	Future Research	84
5.5.	Conclusion	87
APPENDIX A.....		89
UNIVERSITY OF PITTSBURGH INSTITUTIONAL REVIEW BOARD APPROVAL.....		89
APPENDIX B.....		90
PARTICIPANT CONSENT FORM.....		90
APPENDIX C		94
INSTRUMENTS AND QUESTIONS USED FOR THIS STUDY		94
BIBLIOGRAPHY.....		102

LIST OF TABLES

Table 1.1: Description of the Sample – Education and Employment.....	43
Table 1.2: Description of the Sample – Annual Income.....	44
Table 2.1: Non-Transformed Variables: Means, Standard Deviations, Ranges, and Skewness/Kurtosis	45
Table 2.2: Transformed and Tricotomized Variables: Skewness/Kurtosis	45
Table 3: Mean, Standard Deviation, and BPI Factor Loadings of Externalizing Behavior (Factor 1 and Internalizing Behavior (Factor 2).....	47
Table 4: Spearman rho Bivariate Correlations.....	55
Table 5.1: Hierarchical Multiple Regression Analysis to Predict Child Behavior Problems with Mother’s Satisfaction with Father’s Parenting as the Independent Variable and Maternal Depressive Symptoms (CES-D) as the Moderator.	58
Table 5.2: Hierarchical Multiple Regression Analysis to Predict Child Behavior Problems with Mother’s Satisfaction with Father’s Parenting as the Independent Variable and Maternal Parenting (EC-HOME observer rating survey) as the Moderator.	59
Table 5.3: Hierarchical Multiple Regression Analysis to Predict Child Behavior Problems with Mother’s Perception of Interparental Conflict over the Child as the Independent Variable and Maternal Depressive Symptoms (CES-D) as the Moderator.	60
Table 5.4: Hierarchical Multiple Regression Analysis to Predict Child Behavior Problems with Mother’s Perception of Interparental Conflict over the Child as the Independent Variable and Maternal Parenting (EC-HOME observer rating survey) as the Moderator.	61
Table 6: Hierarchical Multiple Regression Analysis to Predict Internalizing Child Behavior Problems with Mother’s Satisfaction with Father’s Parenting as the Independent Variable and Maternal Parenting (EC-HOME observer rating survey) as the Moderator.	68

LIST OF FIGURES

Figure 1: Theoretical Model	30
Figure 2: Mother's Satisfaction with Father's Parenting and Mother's Parenting (EC-HOME) Observer Rating Survey on Internalizing Child Behavior with Frequency of Father Contact Dummy Variables as Covariates.....	67

ACKNOWLEDGEMENTS

I want to first thank my Committee Chair, Gary Koeske, Ph.D., for his encouragement, calm and steady support, and guidance throughout the process. His depth of knowledge, availability, diplomacy, and sense of humor made the dissertation process go smoothly and kept me on track. He greatly increased my understanding of and appreciation for social work scholarship – for which I will always be grateful. Special thanks also go to Aurora Jackson, Ph.D. for giving me the opportunity to work on her study and being so responsive at each step along the way. From this experience, I greatly increased my knowledge about African American mothers and children and the complexity of the research process. I want to thank Helen Petracchi, Ph.D. for her mentorship and thoughtfulness throughout my academic experience in the School of Social Work. I greatly appreciate all I have learned from her. My gratitude also goes to Joan Vondra, Ph.D. for her thorough review and insightful comments that helped me clarify my thoughts and improve the quality of my dissertation.

This work was possible due to the National Institute of Mental Health (NIMH) who supported the grant in which the study data were collected and under the direction of Aurora Jackson, Ph.D., at the School of Social Work, University of Pittsburgh and later the University of California at Los Angeles. I will be forever grateful to the mothers and children who participated in this study and from whom I learned so much. I wish them and their children peace and the opportunity to make their wishes come true. I will never forget them and what they taught me.

Special thanks go to my family. My sister, Ingrid Faro, has been a wonderful support and listening ear, which I promise to be in return when she starts her doctoral studies next fall. Thanks to my father, Kore Kvist Spjeldnes (Spellnes), who was a calm source of comfort and

support, and to my mother, Ingrid Birgit Rosengren Spjeldnes (Spellnes) who taught me to work hard to attain my goals. I treasure their life-long love of learning, discipline, ethics, and passion for social justice. I'm sorry they aren't here to see this day. Thanks to my sons, the joys of my life, Kevin Kvist Peters and Brian Stephen Peters, for their patience and goodness. I hope my efforts will inspire them to find the career of their dreams. Thanks also to my husband, Steve, for his support these long years. Special gratitude goes to my aunt, Anne Marie Elmqvist, who earned her doctorate in her 70s, which inspired me to continue my education.

Finally, I am grateful to the School of Social Work along with the many professors, fellow students, and friends who have been so encouraging. I specially appreciate Bill Schutz, Ph.D. whose invaluable explanations and resources assisted me with my statistical procedures. Thanks also to Sandy Mompar, Ph.D., Jayashree Mohanty, So'Nia Gilkey, and Judy Johnson for their kindness. Many wonderful people have contributed to my learning, perseverance, and inspiration. I hope I can give as much in return and to others as all of you have given to me.

1. STATEMENT OF THE PROBLEM

1.1. Introduction

The purpose of this dissertation was to study whether and how maternal-reported interparental relationship quality, specifically child-related interparental conflict and maternal satisfaction with father's¹ parenting in urban, African American, low-income nonmarital families, is associated with preschool children's behavior. This study investigated the extent to which single mothers' parenting practices and depressive symptoms statistically moderated the association between their reports of interparental relationship quality and children's behavior. Experts assert that children function best when their biological parents have a stable marital relationship, and that interparental conflict can jeopardize the stability of the marriage, potential for marriage and the continuation of father involvement (McLanahan, Donahue, & Haskins, 2005; McLanahan & Sandefur, 1994). Extensive literature links interparental relationship quality with child behavior problems (Davies, Harold, Goeke-Morey, Cummings, & Mark, 2002; Davies, Sturge-Apple, Winter, Cummings, & Farrell, 2006; Osbourne, McLanahan, & Brooks-Gunn, 2004; Peterson & Zill, 1986). Child-related parental conflict is associated with lower child well-being (Block, Block, & Morrison, 1981; O'Leary & Vidair, 2005). Evidence suggests associations between and among interparental discord related to child-rearing disagreements, parenting difficulties, maternal depressive symptoms (Davies et al., 2004) and child functioning (Chang, Lansford, Schwartz, & Farver, 2004; O'Leary & Vidair, 2005). Exploration of this problem is important

¹ Unless otherwise stated, the term *father* will refer only to the focal child's biological father.

because early childhood behavioral problems can persist (Moffitt, Caspi, Harrington, & Milne, 2001) and contribute to children's academic underachievement and societal maladjustment (Brody, Stoneman, & Flor, 1995; Grych & Fincham, 2001).

Further investigation is also relevant due to societal and political concerns about nonmarital child-bearing among single, African American mother-headed families, which is linked to poverty, maternal depression, poor parenting and negative child outcomes (Jackson, Brooks-Gunn, Huang, & Glassman, 2000; McLoyd, 1998; Roxburgh, Stephens, Tolzis, & Adkins, 2001). To address these concerns, welfare reform goals such as the African American Healthy Marriage Initiative (AAHMI) include encouraging African American parents to marry or coparent effectively, and motivating fathers to stay involved with their children (Dawson, Williams, Thomas, & McCowan, 2005; Office of Public Affairs, 2006).

Child behavior problems can be exacerbated exponentially with multiple risk factors; well-documented risk factors include father absence, maternal depression, inadequate parenting, and living with a low-income single mother (Fraser, Kirby & Smokowski, 2004). Such risks place African American children at a disadvantage compared to White children with respect to behavioral outcomes (McLanahan & Sandefur, 1994). Yet, a paucity of literature focuses on the association between interparental relationship quality and child well-being in Black families (McLoyd, Harper, & Copeland, 2001). McLoyd and her colleagues (2001) suggested that more research is needed to identify social influences that may buffer the association between the mother-father relationship quality and child outcomes in Black families.

This quantitative study investigated the associations between and among mother-reported interparental relationship quality, parenting in the home environment, maternal depressive symptoms, and child behavior problems in a sample of 100 urban, low-income, African

American single mothers and their 3- and 4-year-old children. Interparental relationship quality was composed of two variables: mother-reported interparental conflict about the child and maternal satisfaction with the father's parenting. Mother-reported frequency of father contact was controlled in order to examine the relation between mother's perceptions of interparental relationship quality and child behavior independent of her report about the amount of contact. The theoretical frameworks employed are the ecological perspective and the risk and resilience perspective. The following background variables were analyzed in the model: child gender, mother and father educational attainment and employment status, whether formal child support had been agreed to, household income, and welfare receipt.

1.2. Background

1.2.1. Increases in single mother-headed families bring legislative action.

To the alarm of policy makers, union formation and family structure have changed dramatically during the past four decades (McLanahan et al., 2005). Nonmarital births have risen from 5.3% in 1960 to 35.7% in 2004. The racial differences are noteworthy. In 2004, 69.2% compared to 24.5% of nonmarital births were to (non-Hispanic) Black women vs. (non-Hispanic) White women, respectively (Child Trends, 2006). Between 1960 and 2000, the percent of African American children living with a single parent rose from 22% to 53% vs. 7% to 22% for White children (Sigle-Rushton & McLanahan, 2002). These numbers are important because children in father absent homes are poorer than others and, as a result (some posit), at greater risk for short- and long-term problems including lower educational attainment, behavior and mental health problems, substance abuse, and delinquency, largely as a function of poverty (McLanahan & Sandafur, 1994). Based on their review of the literature on families of color, McLoyd and her

colleagues (2001) disputed this hypothesis, positing that African American children may be less affected by father absence than are White children due to greater social supports networks, but the literature is still limited. However, Patterson (1999) reported that, contrary to popular wisdom, Black families at all socioeconomic levels tend to report fewer social supports and smaller social networks than do White families.

Concern about the rise in nonmarital childbearing and large welfare caseloads comprised of single mothers and their children have led policy makers to enact legislation resulting in a plethora of programs aimed at turning these trends around (McLanahan et al., 2005). The Temporary Assistance for Needy Families (TANF) Program, which was created by the 1996 Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA), includes provisions and state block grants for extensive interventions. Three of the four purposes set by TANF involve promoting healthy marriages to achieve the goal of improving child well-being [Administration for Children & Families (ACF) Press office, 2006, February 8]. These purposes set marriage, responsible fatherhood, and the reduction of nonmarital births as national goals, with consequent funding for public health professionals, social workers, educators, and public and private organizations (McLanahan et al., 2005).

Since TANF originally was passed, two major social welfare reform initiatives have been added. In 2001, the Clinton administration established the Responsible Fatherhood Initiative to encourage father involvement and financial child support (New Responsible Fatherhood Initiative, 2000, January 26). In 2002, the Bush administration enacted the African American Healthy Marriage Initiative (AAHMI), which is a component of the Healthy Marriage Initiative and administered by the ACF. The AAHMI promotes marriage and encourages cooperative parenting in unmarried as well as in married couples, and works cooperatively with the

Responsible Fatherhood Initiative (Dawson et al., 2005). More than thirty states have marriage education programs; some states require marriage preparation classes to graduate from high school.

The various programs that have proliferated in every state have been criticized as being ineffective (Nock, 2005). In fact, some findings indicate that fewer rather than more marriages have resulted from these efforts (Bitler, Gelbach, Hoynes, & Zavodny, 2004). A recent preliminary evaluation of intervention programs that provide skills training to encourage responsible coparenting for unwed parents found that parents reported interest in marriage education programs to assist them in forming and maintaining a healthy marriage (HHS News, 2006, September 25). Although attendance and program satisfaction information showed a positive response, the assessment included no outcome data that linked program participation with actual behavior change. These data will be available in a future report.

In 2006, TANF reauthorization, which is part of the Deficit Reduction Act of 2005, will provide \$150 million per year for five years to fund parenting, communication, and conflict resolution skills programs, among other efforts. As much as \$50 million of this amount per year can be used for interventions to promote responsible fatherhood (ACF Press office, 2006, February 8).

1.2.2. Interparental relationship quality.

Changes in family structure during the past four decades have spurred research about interparental relationship quality (Davies et al., 2002). The connection between interparental relationship quality, particularly conflict, and child well-being is so well-established that a new generation of research is exploring other processes, contexts, and ecological factors to further

elucidate this association (Davies, Sturge-Apple, Winter, & Cummings, 2006).² Findings indicate that interparental conflict is a more robust predictor of child problems than absence of relationship satisfaction, both cross-sectionally and over time (Buehler, Anthony, Krishnamahar, Stone, Gerard, & Pemberton, 1997; Katz & Gottman, 1993; Jones, Forehand, Dorsey, Foster, & Brody, 2005). According to Lehmann, Shinn, Allen, and Simko (1983), a mother's perception of social support from the father and perceived interparental conflict should be measured separately, because they may be differing psychological dimensions.

A preponderance of the existing and recent literature focuses on middle-class married, separated, or divorced families (Buehler et al., 1997; Davies et al., 2006; Reid & Crisafulli, 1990). Findings to date confirm that children exposed to interparental discord often exhibit externalizing (e.g., aggression, resistance to authority) and internalizing (e.g., anxiety, depression, withdrawal) problem behaviors (Buehler et al., 1997; Davies et al., 2002; Davies & Cummings, 1998; Harold, Shelton, Goeke-Morey, & Cummings, 2004). Reid and Crisafulli's (1990) meta-analysis of interparental relationship quality and child outcome studies completed through 1988 found that marital discord was consistently related to child problems. The Erel and Burman (1995) meta-analysis and the Demo and Cox (2000) literature review reported that poor relationship quality was associated with diminished parenting and poorer child outcomes. A study of low-income boys in Pittsburgh indicated that exposure to interparental discord at age 3 predicted conflictual interactions with parents at age 5 and with teachers and peers at age 6 (Ingoldsby, Shaw, & Garcia, 2001). In a longitudinal study of children between ages 3 and 7, Block, Block, and Morrison (1981) found that parental child-rearing disagreements predicted more negative behavior and poorer psychological well-being of young children.

² Note that definitions related to interparental relationship quality (e.g., marital conflict, interparental conflict, marital satisfaction, parental relations, as examples) in research studies vary and overlap substantially (Buehler et al., 1997; Erel & Burman, 1995; Emery, 1982).

Research on interparental conflict has focused on married, middle-class, predominately White families (Davies et al., 2002). The high rates of conflicted and unstable parent partnerships among low-income African American couples suggest that Black children from low-income families may be at considerable developmental risk (Collins, 2004; Hill, 2005; McLoyd, 1990; McLoyd, Cauce, Takeuchi, & Wilson, 2000; Patterson, 1999). Patterson (1999) and Hill (2005) noted that, compared to other groups, all African Americans are less likely to marry. In 2005, non-marriage rates for Black women were 43.4% compared to 22.9% for White women (U.S. Census Bureau, 2005). In 1970, of women ages 30 to 34, 9.2% of both Black and White women had never married. By 1994, 42.7% of Black women in this age group compared to 16.2% of women had never married (Saluter, 1994, March). Patterson (1999) asserted that at all socioeconomic levels African American couples reported greater conflict in relationships than other ethnic groups. Arguing that the extreme conditions of slavery emasculated fathers from their role as breadwinners and as protectors of their families, he posited that these experiences changed family dynamics by undermining both male identity and their role in family life. According to Patterson, continuing oppression, economic strife, and discrimination further mar current heterosexual relations among African Americans. Hill (2005) pointed out that Black women have always been in the labor market and expected to contribute financially for children. However, African American families tend to endorse mainstream values, including a belief in traditional gender roles (Edin & Kefales, 2005; McLoyd, Cauce, Takeuchi, & Wilson, 2000). The combination of limited paternal financial contribution to the family, the commonly held belief in the father's role as breadwinner, and high rates of infidelity create conflict particularly in low-income African American families (Liebow, 2003; Patterson, 1999).

In their book based on a five-year ethnographic study, *Promises I can keep: Why poor mothers put motherhood before marriage*, Edin and Kefales (2005) asserted that low-income Black, White and Hispanic women want to marry: however, conflicting expectations between men and women frequently destroy their relationships. They report that for many low-income mothers, marriage is a goal reserved for a time when the right man and sufficient income become a reality. Because many African American women believe children will enhance their lives, they choose not to wait for marriage to bear a child – regardless of the stability of their relationship with the child’s father. In a study of poor, mostly Black, unmarried couples, McLanahan (2004) found that the majority of new parents (mothers 53% and fathers 63%) said they were interested in marriage. Yet, three years later, 51% of the couples had broken up; 15% had married. Many low-income Black mothers doubted that the fathers (or other available men) were trustworthy; would be caring fathers and husbands, and would provide adequate financial support. Conflicts that result in separation or delayed marriage seemed to arise due to expectations that one or both parents did not or could not fulfill, especially regarding financial support and trustworthiness (Collins, 2004; Edin & Kefales, 2005; Gibson-Davis, Edin, & McLanahan, 2005; Waller & McLanahan, 2005).

For African American, low-income parents, the quality of the mother-father relationship predicts level of father family involvement and, ultimately, likelihood of separation (Carlson, McLanahan, & Brooks-Gunn, 2005; Wilson et al., 2001). Many parent couples in this population have unstable or temporary relationships (Carlson, McLanahan, & England, 2004). Considering the higher numbers of environmental risk factors plaguing these families, it is reasonable to expect that low-income African American mothers and children can experience financial distress, anxiety, conflict and resulting child behavior problems more serious than occurs in

White, middle-class families. Therefore, the divorce literature, which predominately draws from this latter population, is relevant to this study.

Since the 1960s, rising divorce rates have resulted in approximately half of all American families experiencing dissolution and a million children annually living with mothers (86%) in single parent or stepfamily homes (Hetherington, Bridges, Isabella, 1998; Rodriquez & Arnold, 1998, October). Children tend to show poorer functioning both in the short and long term following divorce, compared to the functioning of children from intact families (McLanahan & Sandefur, 1994; Simons, Lin, Gordon, Conger & Lorenz, 1999). Hetherington and her colleagues (1998) presented data showing that children of divorce are two to three times more likely to suffer serious psychological and behavioral problems than children of married parents. Smith and Carlson (1997) found that divorce predicted more negative functioning for boys than girls in early childhood. Multiple interparental disruptions (i.e., divorce, partner changes) were related to poorer parenting and more difficult behavior in 3-year-old children (Osborne & McLanahan, 2004). However, Rodriquez and Arnold (1998, October) concluded from their summary of the literature that high parental conflict, whether or not a divorce is involved, is the stronger predictor of child adjustment problems.

In a literature review, McLoyd and her colleagues (2000) reported that the negative outcomes found among children of conflicted White married couples are also observed in the children of conflicted Black married couples. Osborne, McLanahan and Brooks-Gunn (2004) reported that mother-father conflict was highly associated with both aggression and withdrawn behaviors ($p \leq .01$) in the 3-year-old children of married and cohabitating low- income parents of varying racial backgrounds. Six articles were found that focused on interparental relationship

quality in low-income African American families with two adult caregivers³ and the impact on young children. Two reported that child functioning was poorer when parents or caregivers were in conflict (Brody et al., 1995; Conger, McLoyd, Wallace, Sun, Simons, & Brody, 2002). One found that conflicted coparents predicted poorer child behaviors for children ages 7-15 than did coparent lack of support (Jones, Forehand, Dorsey, Foster, & Brody, 2005). Using a sample most like this current study, Jackson (1999) found that employed mothers' satisfaction with the amount of time fathers spent with the child was associated with fewer behavior problems in African American preschool children. Using data from the 1999 study, Jackson and Scheines (2005) found that interparental relationship quality predicted child behavior problems only indirectly through parenting and through maternal depressive symptoms. Using the National Longitudinal Study of Youth data set, Nievar and Luster (2006) found that parental discord significantly predicted higher children's behavior problems in White families, but not in Black families. McLoyd and her colleagues (2001) concluded that more research is needed on interparental relationship quality and child well-being in single-parent Black families.

1.3. Significance

According to the ACF (2006) report *Helping Unwed Parents Build Strong and Healthy Marriages: A Conceptual Framework for Interventions*, the quality of interparental relationship skills, particularly conflict management, in low-income families is undocumented (Dion, Devaney, McConnell, Ford, Hill, & Winston, 2002). However, evidence suggests that interparental conflict is likely exacerbated by the stress accompanying financial difficulties, as well as by the problems endemic to poverty and minority status (e.g., lack of neighborhood resources, violence, discrimination, and inadequate schools and services) (Duncan & Brooks-

³ Caregivers included biological parents, a parent and a cohabitor who could have been a boyfriend, stepparent or relative.

Gunn, 1997). McLoyd, Harper, and Copeland (2001) reported that one gap in the literature on interparental relationship quality is the relative absence of African American families. Other researchers have noted a similar gap in this literature (Cummings & Davies, 2002; Davies et al., 2002).

For example, despite the abundant work linking interparental relationship quality, parenting, and parental depression to children's well-being (Davies et al., 2002; Weisman, Wickramaratne, Nomura, Warner, Verdeli, Pilowsky, et al., 2005), there is a dearth of such research about the associations between and among these factors in urban, low-income, African American families, particularly those headed by single women (McLoyd et al., 2001). Studies that sample this population generally report on associations among parenting practices, maternal depressive symptoms, and child functioning (Brooks-Gunn & Markham, 2005; Halgunseth, Ispa, Csizmadia, & Thornburg, 2005; McGroder, 2000; Jackson et al., 2000). Jackson (1999) reported that perceived nonresident father noninvolvement among urban, low-income, African American, single-mother families predicted greater depressive symptoms in nonemployed - but not employed - single mothers. In the same study, she found that higher depressive symptom scores were associated with mothers' dissatisfaction with the amount of love and financial support they perceived the father provided for the child. However, nonemployed mothers who reported higher satisfaction with their relationship with the father also reported more depressive symptoms. Jackson posited that nonemployed mothers may feel compelled to cooperate with the fathers more so than do employed mothers, because of their financial dependence on the fathers. For employed mothers, nonresident fathers' involvement with their child was associated with both fewer maternal depressive symptoms and fewer child behavior problems. Jackson's study is the most relevant to this study.

Cummings and Davies (2002) found that marital conflict in combination with one or more family context factors (e.g., parental depression and parenting behaviors) better predicted child behavior problems than did any single factor. These researchers also reported that parenting moderated the association between interparental conflict and child behavior problems. Parenting behaviors and depressive symptoms have been shown to statistically mediate the association between interparental relations and child well-being (Spence, Naiman, Bor, O'Callaghan, & Williams, 2002). In addition to mediation models, Cummings and Davies (2002) recommended that to extend existing knowledge, researchers should further investigate the extent to which the range of family contextual factors (e.g., parenting behaviors and depressive symptoms) alters the association between these variables. In the case of this study, for example, it was expected that child behavior problems would be fewer if the home environment was more satisfactory.

The present study helps fill gaps in the literature about the pattern of association among mother-father relationship quality (from the mother's perspective), mothers' psychological well-being, maternal care-giving, and child behavior problems. This endeavor was particularly important because TANF programs, including the African American Healthy Marriage Initiative (AAHMI), has allocated \$150 million per year for five years to spend on interventions intended to encourage and sustain healthy marriage and/or coparenting to improve children's outcomes. However, descriptive data are lacking about the average of and range of interparental relationship quality in low-income, Black, nonmarital families that could inform what interventions are worth the investment (Dion et al., 2002). This study can assist in providing direction toward AAHMI's stated ultimate goal of optimizing children's well-being.

2. REVIEW OF THE LITERATURE

Both a risk and resilience perspective and an ecological perspective provide the framework for this study. The following pages summarize the literature about these two perspectives, the central study variables, and the hypotheses.

2.1. Ecological Perspective

The well-established ecological perspective considers interrelationships between persons and their environmental systems as well as the adaptations people make to cope with their circumstances (Bronfenbrenner, 1979). Bronfenbrenner (1979, 1986, 1998) described children and adults as affected by ever broader environmental systems from microsystem, mesosystem, and exosystem to macrosystem and chronosystem, which he names a bioecological model of human development. Microsystems involve close interactions, such as those between children and their parents in the home environment. Mesosystems refer to connections between or among two or more microsystems that contain the child, such as relations between parents and the child's preschool staff. Exosystems involve linkages between or among two or more actors or settings, neither of which is the child, such as relations between mothers and the welfare department or between mothers and their employers. Macrosystems consist of the cultural, ethnic, societal, and national environment in which the first three systems operate (e.g., Black family social supports, TANF and the AAHMI). Chronosystems pertain to influences that change over time. "Basic" chronosystems refer to life transitions or events (e.g. parental separations or father loss), whereas "complex" chronosystems represent the additive effect of conditions such

as long-term poverty on the lives of families. Bronfenbrenner's interrelated systems provide a useful framework for analyzing the multiple effects of poverty and family contexts on children's socioemotional growth and behavior (Eamon, 2001).

Bronfenbrenner and Ceci (1994) expanded theories about biogenetic transmission of traits and behavior to include environmental interactions (called proximal processes) that over time influence development and behavior. For children, proximal processes involve reciprocal relations with family members along with factors that impact family functioning. Bronfenbrenner and Ceci emphasized that these processes lead to differing individual outcomes depending upon people's perception of and response to their circumstances, the coping strategies used, and their ability to sustain mutually satisfying relationships. Individuals with supportive relations are more likely to reach their full potential than those lacking healthy relationships. Bronfenbrenner and Ceci reported that a positive nurturing mother-infant relationship led to fewer problem behaviors by age 4, particularly for the most socioeconomically disadvantaged children. They cited lack of stable relationships over time, interparental conflict, living with a single mother, minimal parental education, and low socioeconomic conditions as environmental influences that had deleterious effects on children's well-being. In order to identify strategies to maximize potential, These researchers proposed that studies should consider the interrelationships between and among ecological systems in the investigation of human development and behavior.

Infants and young children are most directly affected by relationships with their parents and, to a lesser extent, by the wider environment (Bronfenbrenner, 1986; Eamon, 2001). As part of explaining the chronosystem, Bronfenbrenner argued that children function best when their parents' relationship and family lives remain stable and that change negatively impacts young boys more than girls. For this reason, young children may be more affected than older children

by family conflict and father absence. Hetherington (2005) cited that meta-analyses comparing the effects of serious conflict and separation on children found inconsistent effects of child age at time of divorce or separation.

Based on an ecological perspective, Belsky (1984) presented a process model of influences on parenting, that included psychological health, social support (e.g., interparental support), and work. He argued that each of these (and other) factors adds to or buffers the effects of stress, which shape parenting adequacy. McLoyd (2000) used the ecological perspective in her analysis of the literature concerning the effects of socioeconomic disadvantage on low-income Black families. In her 1990 groundbreaking article, McLoyd developed the family stress model that describes the interrelation of economic hardship and family dynamics as both influencing children. She found that poverty-related stress experienced by parents at multiple system levels directly and indirectly harms children, principally through parental emotional distress, diminished parenting quality, and conflictual mother-father relations. Based on these findings, McLoyd argued that researchers who ignore African American social, economic, and political disadvantage in studies involving Black families may arrive at invalid conclusions.

Application of an ecological perspective is important to this study of low-income, African American, single-parent families because of the need to identify responses to stressful circumstances in this population. McLoyd and her colleagues (2001) and Pachter, Aulinger, Palmer and Weitzman (2006) asserted that social differences, along with societal factors that affect Black families, may facilitate or impede relations between and among interparental relationship quality and child outcomes.

This study focuses on the microsystem of single-parent homes and the mesosystem of interparental relationship quality. It targets single mother families in which the father is not a

regular participant in the home. Additionally, this study provides descriptive information about interparental relationship quality and child behavior in Black, low-income, single mother families, which will extend the literature beyond the White, married, middle-class families who provided the basis for this well-documented association (Davies, et al., 2002). A direct comparison of macro factors, such as ethnicity or culture, cannot be made within the study because the sample does not include majority families.

2.2. Risk and Resilience Perspective

The risk and resilience perspective considers how difficulties and protective factors add up or interact to influence individual outcomes (Cowan, Cowen & Schulz, 1996; Patterson, 2002). This perspective has been extensively used to propose processes whereby children navigate positively or negatively through adverse life circumstances. Risk and resilience continually interplay to influence quality of life and health across the lifespan (Smith & Carlson, 1997). McLoyd (1990) and Spencer (1990) both asserted that the risk and resilience perspective should direct the study of low-income African American families, because this perspective takes into account interactional adaptations and variations in ethnic groups, family, and individual responses to environmental factors.

Risk can be defined in terms of one or more factors that increase the probability of poorer developmental outcomes (Coie, Watt, West, Hawkins, Asarnow, Markman, Ramey, Shure, & Long, 1993; Cowen et al, 2002). Accumulated risks increase this probability substantially (Fraser, 2004; McLoyd, 1990; Patterson, 2002; Smokowski, 1998). Among the many acknowledged childhood risk factors are poverty, parental depression, inadequate parenting, single parenting, and interparental strife (Fraser, Kirby & Smokowski, 2004; Seifer, Sameroff,

Baldwin, & Baldwin, 1992; McLoyd, 1998). According to Fraser and his colleagues (2004), interparental conflict, harsh parenting, and maternal psychological problems (including depression) are well documented family risk factors for children. In the context of family distress and inadequate parenting, young boys tend to experience more harm, particularly externalizing behavior problems, than do girls (Fraser et al., 2004; Shaw, Winslow, Owens, Vondra, Cohn, & Bell, 1998). Due to loss of economic support, coparenting support, and emotional connection with their children, father absence also can put children at risk (Jackson & Scheines, 2005; McLanahan & Sandefur, 1994).

Poverty is one of the most universal indicators of child risk due to its well-documented link to many negative child outcomes in the areas of emotional and physical health and behavior (Children's Defense Fund, 1994). Abundant research demonstrates the negative impact on children of all ethnic groups when poverty and unstable employment plague families (Conger, Conger, Elder, Lorenz, Simons & Whitbeck, 1992; Jackson et al., 1998; McLoyd, 1990; Pachter et., 2006). Shaw, Vondra, Hommerding, Keenan, and Dunn (1994) found that persistent poverty is associated with poorer child functioning through the cumulative stressors that accompany life with low-income. Poverty harms children through limited and insufficient resources and services, which are associated with less adequate parenting and childhood stress and deprivation (Chase-Lansdale, Gordon, Brooks-Gunn, Klebanov, 1997; McLanahan & Sandefur, 1994; McLoyd, 1990).

Chronic economic distress starting in early childhood is associated with more persistent negative effects for children (Dubow & Ippolito, 1994). The longer children live in deprived conditions, the greater the likelihood that they will experience family instability, family dissolution, domestic or environmental violence, hunger, diminished quality of life, unhealthy

socialization, poor school performance, and mental and physical dysfunction. Chronically poor children often suffer negative outcomes throughout their lives (Duncan & Rodgers, 1988; Garrett, Ng'andu, & Ferron, 1994).

Brown and Moran (1997) found that low-income single mothers were twice as likely as married mothers to experience depression, despite higher employment rates. Mothers with depressive symptoms are more likely than symptom-free mothers to treat their children harshly, irritably, or even abusively (Cummings & Davies, 1994). Diminished parenting in turn predicts lower emotional health and functioning of children and a problematic parent-child relationship (Brooks-Gunn & Duncan, 1995; Conger et al, 1992; Jackson et al., 2000; Jackson & Huang, 1998; McLoyd, 1990). One study found that for poor, single, Black mothers with more depressive symptoms and greater parental stress, being employed (described as a protective factor) was associated with less frequent spanking (Jackson et al., 2000).

Because a nurturing parent-child relationship can serve as a powerful protective factor, damage to the relationship can lead to unhealthy or delinquent behavior (Fraser et al., 2004). Jackson, Brooks-Gunn, Huang, and Glassman (2000) demonstrated a risk chain in a study of single, African American mothers with low-income and their preschool children. Using maternal report measures, mothers' education was positively associated with income and, along with greater access to social support, was negatively related to financial strain. Financial strain was positively correlated with maternal depressive symptoms. Mothers with higher depressive symptoms, in turn, scored lower on a measure of parenting adequacy, which was associated with more child behavior problems.

Grych and Fincham's (2001) comprehensive literature review links the risk of interparental conflict with children's emotional, behavioral, social, and academic problem outcomes. These

and other researchers report that as the intensity or frequency of unresolved interparental conflict increases, so do child problems (Grych, Seid, & Fincham, 1992; Jouriles, Murphy, Farris, Smith, Richters, & Waters, 1991). Shaw, Keenan, Vondra, Delliquandri, and Giovannelli (1997) found that exposure to child-rearing disagreements between parents posed as a risk factor for internalizing problems in early childhood. Poor interparental relationship quality has been directly linked to children's behavior, but also indirectly linked statistically to behavior through family context mediators (Davies et al., 2006). Living in unstable or distressed families compounds the risk of negative outcomes for children when mother-father conflict is high (Conger & Conger, 2002; Demo & Cox, 2000). Such conflict in the general population and in African American families has been shown to predict maternal depression and diminished parenting. Parents in a conflictual relationship generally demonstrate less warmth and sensitivity toward their children and ineffectively monitor and discipline them (Davies et al., 2004; Erel & Burman, 1995; O'Leary & Vidair, 2005). Conflict can lead to family disruption and dissolution, which are associated with maternal depressive symptoms, parenting problems, and anxiety and acting out in children (Davies et al., 2002; Downey & Coyne, 1990).

Resilience is the ability to navigate difficult situations so as to avoid adverse outcomes. It is not the absence of risk factors, but the capacity to use available resources to maintain competence in the face of risk (Garmezy, 1993; Luther, Cicchetti, & Becker, 2000; Rutter, 1999). The concept of resilience stems largely from research on children who have shown effective adaptive skills and who behave competently despite adverse conditions (Cowen et al., 1996; Patterson, 2002; Werner & Smith, 1982). Resilience consists of a composite of three main groups of factors: individual coping strategies, family support factors, and external social support systems. Protective factors, by definition, moderate risks to maintain well-being and

enhance resilience (Cowen et al., 1996). Such factors for children include effective parenting, low family conflict, intelligence, social skills, social supports, low childhood stress, and positive attitude; linked protective factors become protective chains (Brooks-Gunn & Duncan, 1995; Smokowski, 1998). Extensive evidence points to at least one and sometimes multiple nurturing parent-child relationships as a predictor of resilience and positive outcomes (Conger et al., 1992; Jackson et al., 1998; Jackson et al. 2000; Kenny, Gallagher, Alvarez-Salvat, & Silsby, 2002; Smokowski, 1998). Maternal mental health, interparental support, nurturing parenting and family cohesion, maternal warmth and affection mitigate the risk to children's well-being from poverty-related stressors and interparental conflict (Brody, Dorsey, Forehand, & Armistand, 2002; Conger & Conger, 2002; Davies et al., 2002; Kim-Cohen, Moffitt, Caspi & Taylor, 2004). For middle-class children, "authoritative" parenting characterized by nurturing and consistent (but not harsh) discipline is associated with resilience and well-being (Maccoby & Martin, 1983). For urban, low-income, African American families, Murry, Bynam, Brody, Willert, & Stephens (2001) noted that some researchers report that parenting style characterized by strict discipline is associated with resilient children. Based on a synthesis of the literature, they recommended using the ecological and risk and resilience perspectives to research the complex factors that predict differences in the developing child. Furthermore, identifying risk and protective factors that increase the probability of positive outcomes can inform policy and practice (Conger et al., 2002; Rutter, Pickles, Murray, & Eaves, 2001; Seccombe, 2002).

2.3. Maternal Depressive Symptoms and Child Behavior

An extensive body of literature links maternal depressive symptoms with a wide variety of problematic outcomes for African American low-income children as well as children in the

general population (Downey & Coyne, 1990; Chang et al., 2004; Jackson, 1999; Pachter et al., 2006). Children of depressed mothers are at increased risk for internalizing and externalizing problem behaviors (Anderson & Hammen, 1993; Beck, 1999; Connell & Goodman, 2002; Downey & Coyne, 1990; Jackson et al., 2000; Lee & Gotlib, 1989; Orvaschel, Walsh-Allis, & Ye, 1988; Radke-Yarrow, Nottelmann, Martinez, Fox, & Belmont, 1992; Weissman, Prusoff, Gammon, Merkikangas, Leckman, & Kidd, 1984). Orvaschel and colleagues (1988) reported that children of depressed parents are two to five times more likely than other children to develop behavior problems. A two-year longitudinal analysis found that children of depressed mothers showed significantly higher rates of behavior problems than their peers who had emotionally healthy mothers (Anderson & Hammen, 1993). In their study of attachment in 2- and 3-year-old children in families with depression, Radke-Yarrow and her colleagues (1992) reported that the more serious the maternal depression, the less secure and adjusted were the children. Connell and Goodman (2002) found that younger children tended to be at greater risk due to their mother's depression than older children, responding to her with anger, aggressiveness, and noncompliance (Cummings & Davies, 1994).

In a study of mother's depressive symptoms in African American families, Forehand, Jones, Brody and Armistead (2002) reported that the behavior problems girls, but not boys, were significantly associated with maternal depression at every age. Some have found that preschool children of depressed parents, particularly mothers, show adjustment problems that can endure (Connell & Goodman, 2002; Downey & Coyne, 1990; Jackson, 2003a; Koverola, Papas, Pitts, Murtaugh, Black, & Dubowitz, 2005). Others have reported that among the mechanisms through which mothers' depressive symptoms affect children are less adequate parenting in the home environment, interparental discord, and poverty (Connell & Goodman, 2002).

In a longitudinal study of low-income families, Shaw and Vondra (1995) found that 3-year-old boys, but not girls, exhibited problem behaviors when their mothers reported more depressive symptoms and were observed to be less involved with them. Pachter and colleagues (2006) reported that children of depressed African American mothers, who lived with chronic poverty, had behavioral problems associated with their mothers' depression. Jackson (1999) found that depressive symptoms of employed, low-income, single, Black mothers were associated positively with problem behaviors in their preschool children. Others have found similar associations between maternal depression and less adjusted child functioning (Pettersson & Albers, 2001; Radke-Yarrow et al., 1992; Weissman et al., 2006). Mezulis, Hyde and Clark (2004) reported that healthy father presence was a protective factor for children of depressed mothers.

Given this evidence, it is reasonable to expect that higher levels of depressive symptoms in a sample of low-income, African American, single mothers might be associated with their perception of greater problem behaviors in their 3- and 4-year-old children, and that fewer maternal depressive symptoms might buffer the negative association between poor interparental relationship quality and perceived child problem behaviors.

2.4. Parenting in the Home Environment and Child Behavior

Parenting in the home environment is a well-established predictor of children's well-being and behavior problems (Bradley & Caldwell, 1984; Jackson et al., 2000; Maccoby & Martin, 1983; Rothbaum & Weisz, 1994). Brooks-Gunn and Markman (2005) asserted that parenting involves many activities for and with children, which they placed in seven categories: "nurturance, discipline, teaching, language, monitoring, management, and materials" (p140). The observer

rater survey, which is a part of the *Early Childhood Home Observation for the Measurement of the Environment (EC-HOME) Inventory*, includes most of these categories. Numerous studies have found that parenting styles relate to children's development (Amato & Fowler, 2002; Baumrind, 1972, 1989; Maccoby & Martin, 1983).

Traditionally, fewer studies target low-income, African American single mothers with preschool children, although that is currently less the case. Examples of such research include studies by McGroder (2000) and Jackson (1998, 1999, 2000, & Scheines, 2005). When examining parenting styles of low-income, African American, single mothers with preschool-age children, McGroder (2000) found that mother-reported parenting style was significantly associated with child behavior, but both were influenced by a constellation of family risk factors (e.g., socioeconomic disadvantage and maternal psychological well-being). The parenting styles and expected child outcomes varied according to risk factor. Cluster analyses revealed four parenting patterns: "Aggravated but Nurturant; Cognitively Stimulating; Patient and Nurturant; and Low Nurturance" (p.1). Mothers were categorized based on two risk categories: socioeconomic status and mother's well-being factors. McGroder hypothesized that mothers in the highest risk factor group would demonstrate the least adequate parenting and have children with the poorest outcomes. Mothers' scores on parenting measures including a version of the HOME scale were matched against the risk factor group in which they had been assigned to test the impact of the risks along with parenting styles. "Aggravated but Nurturant" mothers (the largest group, n = 62) had both sets of risks, which included depressive symptoms, no high school degree, and lengthy welfare dependence. "Cognitively Stimulating" mothers (the smallest group, n = 37), with neither sets of risks, had at minimum a high school diploma, short term welfare dependence, and adequate mental health. "Low Nurturant" mothers had low risk in the

mother well-being category, but high socioeconomic risk factors; “Patient and Nurturant” mothers had the reverse set of risks.

The hypothesized associations between and among risk, parenting and child behavioral outcomes held, with some surprises. The group of mothers using a parenting style described as *Cognitively Stimulating* and had the fewest risk factors predicted the highest child functioning of the four groups. *Cognitively Stimulating* and *Patient and Nurturant* parenting styles were both associated with higher school readiness and social maturity compared to the other groups. As anticipated *Low Nurturant* mothers reported providing little nurturing; *Aggravated but Nurturant* mothers unexpectedly reported high nurturance. The children of both latter groups scored poorly on all aspects of school readiness including social maturity, and the highest risk group of mothers did not have children with the poorest outcomes. Maternal depressive symptoms were most closely associated with child problems followed by lesser maternal education, low welfare receipt, and teen motherhood. The *Aggravated but Nurturant* mothers displayed the no nonsense parenting style characterized by tough discipline and high responsiveness, yet their children did not excel.

In studies based on a longitudinal investigation of urban, low-income, African American, single-mother families, Jackson and her colleagues (Jackson, 1998; Jackson et al. 2000, Jackson & Scheines, 2005) reported that adequate parenting based on the HOME scale predicted children having fewer behavior problems. They found that protective factors for adequate parenting and fewer child behavior problems included the mother having at least a high school degree (associated with higher earnings), fewer maternal depressive symptoms, greater satisfaction with the child’s father’s parenting, higher perceived parental relationship quality, and greater father-child contact. Jackson and Scheines (2005) reported that the higher the frequency of father-child

contact, the higher the mothers' scored on the HOME scale, which predicted fewer behavior problems.

Low-income, Black families often have unstable relationships characterized by partner changes, which are associated with diminished parenting and child behavior problems (Osborne & McLanahan, 2004). Literature on associations among unmarried family dissolution, parenting and child outcomes is limited. Therefore, it is necessary to draw upon the divorce literature for making inferences. Hetherington and Stanley-Hagan (1997) reported that the best adjusted children of divorce have parents who maintain a "cooperative, shared parenting relationship" (p201) and whose resident parent is warm, supportive, and responsive to the child's needs. Peterson and Zill (1986) reported that children who maintained a positive relationship with either one or both parents in conflicted post-divorce families had fewer behavior problems. In a longitudinal study of interparental conflict resolution, Katz and Gottman (1993) noted that dimensions of parenting including parental warmth and acceptance, emotive expression, and responsiveness to children's feelings all statistically buffered the association between marital distress and teacher-reported child behavior problems. Others have also found that parenting practices statistically moderated the association between interparental conflict and child behavior problems (Formoso, Gonzales, & Aiken, 2000; Grych & Fincham, 1990; Katz & Gottman, 1993; Peterson & Zill, 1986). Given this literature, it is expected that parenting practices in a Black, low-income population will also statistically alter the association between maternal perception of interparental relationship quality and maternal ratings of child behavior problems.

2.5. Father Involvement

The rise in nonmarital births has attracted interest in the role of fathers in the development and adjustment of their children – including fathers in families that receive public assistance (Amato & Gilbreth, 1999; Furstenberg & Harris, 1993; King & Heard, 1999). In 2001, 68.2% of Black children were born to unwed parents (Hamilton, Sutton, & Ventura, 2003). According to U.S. Census Bureau (2005) data available for 2003, there were approximately three million nonresident African American fathers. These are sobering statistics given the consensus that compared to children with intact married parents, living with a single mother and absent father has negative consequences for children's adjustment (Amato & Booth, 1997; McLanahan & Sandefur, 1994). Most studies of father absence focus on divorce and; in general, children of divorce show evidence of deteriorated behavior (Hetherington, 2005; Sigle-Rushton & McLanahan, 2002). For example, Entwistle and Alexander (1996) found that about 30% of first grade students with nonresident fathers were categorized as having conduct disorders, while half that percent (15%) of children were similarly categorized in intact families. However, in a meta-analysis of 63 articles published between 1970 and 1998, Amato and Gilbreth (1999) found that nonresident father contact had no association with externalizing behaviors, but a small association with internalizing behavior problems. Non-resident father's provision of child support, in contrast, was associated with fewer externalizing problems. In general, contact alone appears to be minimally beneficial. Instead, the important factors that predicted healthy behavior in children were the parenting behaviors and the quality of the father-child relationship. These findings were consistent regardless of race, child age or gender. In a review of the literature, Johnson (1996) found that boys' (more than girls') problem behavior were linked to father absence. She concluded that the literature on father loss from the household was inconclusive for African American boys, but negative for White boys. According to Thompson, Hanson and

McLanahan (1994), only 11% of children of married parents had school-related behavior deficits, whereas 23% of children of divorced mother-headed families, and 26% of those in always-single-mother-headed families had similar problems.

In studies that focus on nonmarital, low-income families, parents have varying types of relationships (e.g., cohabitation, romantic, visiting, no contact); findings about the association between father-child contact and child behavior have been complex and inconsistent (Heiland & Liu, 2006; Jackson & Scheines, 2005; King & Heard, 1999; Sano, 2004; Sigle-Rushton & McLanahan, 2002). The great diversity in father contact and in parenting quality complicates father-child contact measurement (Hijjawi, Wilson, & Turkheimer, 2003; Sano, 2004). An example could be of a father who spends eight hours with child, but has no interaction or worse abuses his child, compared to a father who spends 30 minutes in an interactive activity with his child that intensifies their bond. In a study of low-income, nonmarital families, many of whom were African American, about 74% of fathers reported visiting their 3 year-old children during the past month (i.e., average of 16 days), a frequency which had decreased over time. Furthermore, about 25% of fathers had lost all contact with their children. Greater mother-father relationship quality predicted more father-child contact (Carlson et al., 2005).

Greene and Moore (2000) reported that father's employment and earnings and greater mother's and father's education were associated with more father contact. King (1994; King & Heard, 1999) reported that neither father contact nor child economic support predicted positive child behavior. In fact, for African American children, father contact was associated with more behavior problems, which was not true for the White children. Given the counterintuitive results, King and Heard analyzed their data further and found that the association of child well-being with father visitation was contingent upon the quality of the interparental relationship. The

children whose behavior was negatively associated with father contact had mothers who were displeased with the father's frequent visitation.

Other studies evidenced contradictory results. In a study of low-income, Black, single mother families, Jackson (1999; Jackson & Scheines, 2005) reported that greater nonresident father contact predicted fewer behavior problems in preschool age children. In contrast, Zimmerman, Salem, and Maton (1995) reported that externalizing and internalizing behaviors of African American boys were fewer in the presence of a supportive relationship with their father, whether residing with him or not. Black, Dubowitz, and Starr (1999) discovered that contact with a father figure (i.e., biological or mother's male partner) was not directly associated with fewer child behavior problems. However, an association emerged after controlling for mother's education and parenting satisfaction. More educated mothers had higher performing children, and better adjusted children had fathers whose caregiving satisfied the mother. Frequency of contact has not been shown to be comparable to quality or directly linked to improved outcomes. For example, if more contact means exposure to a father's anti-social behavior, the contact may be harmful (Hetherington & Stanley-Hagan, 1999; Jaffee, Moffitt, Caspi, & Taylor, 2003).

Fathers with extremely limited economic resources tend to provide little, if any, financial or emotional support to their families (King & Heard, 1999). According to Mincy and Sorenson (1998), 67% of fathers who fail to provide child support live below or near the poverty level; and compared to divorced fathers, never-married fathers are less likely to support or spend time with their children (Furstenburg & Harris, 1993). Coley (2001) argued that unemployed men avoid their children because they are unable to provide for them. Living with low-income coupled with racial discrimination impairs a father's emotional health which, according to McLoyd (1990), decreases parenting adequacy. Some posit that recent welfare policy restrictions that require

establishment of paternity to enforce paternal child support payments have had the unintended consequence of distancing poor fathers from their children, because they are unable to meet the requirements (McLanahan & Carlson, 2002; Sano, 2004). Black and colleagues (1999) and Hijjawi and her colleagues (2003) contend that adopting an ecological perspective is important when studying low-income, minority fathers, because micro- and macrosystem factors influence father-child involvement and father impact more so than they do with White fathers. In sum, the empirical evidence concerning contact with children among low-income, nonresident fathers is inconclusive (Sano, 2004) and requires additional research (Coley, 2001). This study was designed help to fill this void.

2.6. Research Hypotheses

Existing literature and gaps in the literature led to the following hypotheses. Frequency of father contact was controlled in order to examine the role of the mother's perception of interparental relationship quality independent of the amount of contact. In urban African American, low-income, single mother families, after controlling for the frequency of father contact, the posited hypotheses are:

H₁ Higher scores on maternal satisfaction with the father's parenting and lower interparental conflict will be associated with fewer child behavior problems at preschool age.

H_{2a} Fewer maternal depressive symptoms will be associated with fewer child behavior problems.

H_{2b} More adequate maternal parenting will be associated with fewer child behavior problems.

H_{3a} Fewer maternal depressive symptoms will buffer the negative effect of poorer interparental relationship quality (i.e., lower maternal satisfaction with fathers' parenting and higher interparental conflict) on child behavior problems.

H_{3b} More adequate parenting in the home environment will buffer the negative effect of poorer interparental relationship quality (i.e., lower maternal satisfaction with fathers' parenting and higher interparental conflict) on child behavior problems.

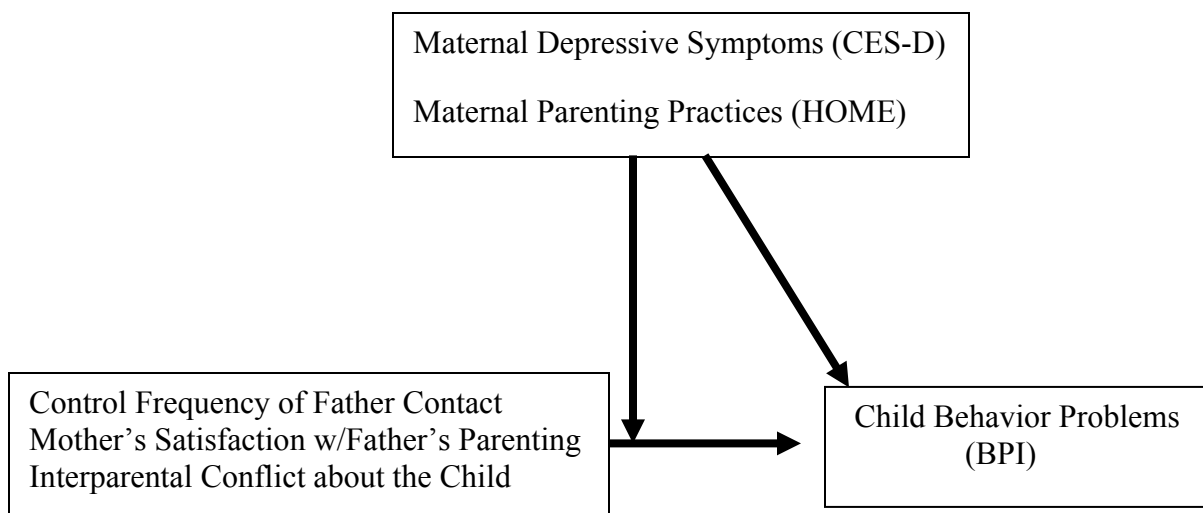


Figure 1: Theoretical Model

3. RESEARCH DESIGN OVERVIEW

3.1. Sample

The sample consists of mothers who participated in the University of Pittsburgh study, “Single Black Mothers: Work, Mental Health, and Parenting (SBMP),” funded by a grant R21 MH066846-02 from the National Institute of Mental (NIMH), awarded to Aurora P. Jackson in 2003, and on which the author was project coordinator. Eligible participants were low-income, single Black mothers (over the age of 18) with a 3-4 year old child, who had no disabilities as observed by the mother or interviewers; all were residents of Allegheny County, PA. The mothers also were current and former recipients of financial or supportive benefits through the Allegheny County Assistance Office (ACAO). At initial contact, half the randomly selected mothers were employed and half were not employed, according to ACAO records. The final sample included 100 mothers and children.

3.2. Procedure

In the fall of 2003, the director of the ACAO agreed to assist with the SBMP recruitment efforts as requested by the Principal Investigator, Aurora Jackson. In a letter to the director dated September 3, 2003, Dr. Jackson delineated the procedures for recruitment which involved random selection of eligible mothers who lived in the 11 zip codes with the highest population of poor and near-poor African Americans. Half the sample was to be employed and half nonemployed for a total of 170, with the goal of recruiting a sample of 120 mothers with a 3 year-old or 4-year-old child. Due to the limited numbers of eligible mothers who were

nonemployed, however, the director only randomly selected 134 mothers, to achieve the 50/50 split of employed and nonemployed.

The director's staff sent recruitment letters (under the letterhead of the ACAO and signed by the director) to eligible potential respondents. The letters described the study as an ongoing survey on raising young children and family life and asked prospective respondents to call the SBMP office or return an enclosed form to the Principal Investigator at the University of Pittsburgh if they wished to participate. Payment for participation was described, which was \$75 for the first interview and \$150 for the second interview. One hundred and eight mothers (81% of those who received the solicitation letter) either called or returned the participation form; of these, 100 were interviewed in their homes. In short, a response rate of 75% was achieved. This response rate, which is very high for mailed participation letters (Rubin & Babbie, 2001), is probably due to four main factors: 1) the monetary benefits offered were high; 2) they were sent using ACAO letterhead and the director's signature; 3) they were sent in March, which is considered an optimal month for response rates; and 4) the letters were personalized (Dillman, 2000).

The principal investigator or the project coordinator, who is the author of this study, conducted all interviews in the mothers' homes. Mothers and their 3-4 year old child were interviewed at Time 1, but only the mothers were interviewed at Time 2. Although the children's preschool readiness skills were assessed during the Time 1 interview, these data were not used for this study. The author and two trained social work graduate students completed all the child assessments. Except for the author, all the interviewers were African American. At the first interview, mothers were told that they would subsequently be assigned randomly to one of two groups, an intervention group or a telephone group. The intervention respondents participated in

a series of psychoeducational group experiences, while the other mothers were contacted every 3-6 months to update contact information. Fifty mothers comprised each group; the mothers were interviewed again approximately two years after the first interview. At Time 2, the teachers of focal children who attended preschool (89 of 99) completed evaluation forms assessing the children's behavior and adaptive language ability. All participants stayed with the study; however, one mother died between Time 1 and Time 2. The present study uses only Time 1 data (N = 100).

The research questions were examined using a cross-sectional, survey research design, consisting of primarily self-report data gathered through personal interviews in the mothers' homes. Results address associations between and among predictor and criterion variables (child behavior problems), not causal relationships. Study findings will be used to inform social welfare policies and practice that influence urban, low-income, African American families.

3.3. Measures

3.3.1. Child behavior problems.

Child behavior problems were measured by maternal report using the 26-item preschool version of the *Behavior Problem Index* (BPI) scale developed by Peterson and Zill (1986). The 26-item version used in this study is identical to the 28-item school-aged version except for two additional items. The BPI was adapted and shortened from the *Child Behavior Checklist* (CBCL) developed by Achenbach and Edelbrock (1983). Peterson and Zill selected items based on reliability, high loading on the CBCL subscales, and ease of use in interviews. The BPI measures a range of internalized and externalized behavior problems, provides an overall score, and four scored subscales: 1) antisocial behavior (e.g., bullies or is cruel or mean to others, 2)

anxious/depressed mood (e.g., is unhappy, sad or depressed), 3) hyperactive behavior (e.g., has difficulty concentrating), 4) general behavior dysfunctions (e.g., has trouble getting along with other children). The National Longitudinal Study of Youth (Center for Human Resource Research, 2000) and other researchers (Spencer, Fitch, Grogan-Kaylor, & McBeath, 2005) divided the BPI into two subscales: internalizing and externalizing behaviors, which was done in this study to conduct post hoc analyses.

Hundreds of studies have used the BPI to assess children's emotional and behavior problems (Spencer et al., 2005). The factor structure of the BPI's overall and subscale scores have been confirmed by means of factor analyses (Weitzman, Gortmaker, & Sobol, 1992). The Cronbach's alpha for the overall BPI scale demonstrates an internal consistency reliability of .90 and reliability averages .70 across the subscales (Gortmaker, Walker, Weitzman, & Sobol, 1990). The BPI was used as a measure in the SBMP study (example articles from the similar study of single Black mothers in New York City include the following: Jackson, Brooks-Gunn, Huang, Glassman, 2000; Jackson & Huang, 1998), where the 28-item version achieved an alpha of .94.

Using the 1998 *National Longitudinal Study of Children and Youth* (NLSY79) data file to investigate the factor structure of the BPI across Black, White, Hispanic populations, Spencer et al. (2005) reported that the total Cronbach's alpha was .93 for Blacks, was .92 for Whites, and .91 for Hispanics. The internalizing subscale alphas were, respectively, .81, .78, and .77, whereas the alphas for the externalizing subscale were .90, .89, .89. Based on multi-group confirmatory factor analyses, Spencer et al. found that a one-factor model and the two-factor models (i.e., externalizing and internalizing subscales) were not equivalent across the three ethnic groups. They concluded that the instrument was most appropriate for evaluating White children. However, they urged further investigation, noting study limitations of evaluating such a large

child age range (age 4 to 14) in the sample used and ethnic differences in the factor structure. It is relevant that the NLSY79 reports BPI data by age group (e.g., 4-6 years-old), which, if used, could have yielded differing findings. Also, NLSY79 dichotomized the BPI's three-point response scale (Center for Human Resource Research, 2000), which downgrades the variables possibly compromising results found by Spencer and his colleagues.

In the present study, mothers were asked to assess the focal child's behavior during the most recent three months. The three-point response scale ranged from 1 = often true to 3 = not true. Items were reverse coded and the mean was used to construct a total score as was done in studies by Jackson (1999; and Scheines, 2005). Higher scores indicated greater behavior problems. The Cronbach's alpha was .83. With the same 26-item scale, demographically similar population, and methodology, Jackson (1999) found a Cronbach's alpha of .86. In the present study, based on force loading onto two components in a factor analysis with a varimax rotation, two subscales (i.e., externalizing behaviors and internalizing behaviors) were created and used in post hoc analyses. The externalizing behavior variable (10 items) had a Cronbach's alpha of .80; the internalizing behavior variable (8 items) had a Cronbach's alpha of .67.

3.3.2. Mothers' satisfaction with fathers' parenting.

Using a scale composed of three items, the mothers were asked how satisfied they were with aspects of the biological fathers' parenting. Scale items were: "On a scale from 0 to 5, where 5 is very satisfied and 0 is very dissatisfied, how satisfied are you with: "a) "the amount of love and caring your child's father has shown him/her?" b) "the amount of time your child's father spends with him/her?" c) "the amount of money and help he's provided for raising him/her?" Jackson used these three items in her previous study (1999), but did not aggregate them into a scale. Higher scores indicated greater satisfaction. For this study, the items were aggregated into

one scale because the items were highly interrelated achieving a Cronbach's alpha of .89, using the mean as the total score.

3.3.3. Interparental conflict.

A single item measured interparental conflict. Respondents were asked, "How much conflict do you have with the focal child's father about things having to do with your child?" Responses were on a six-point range (0 = no conflict to 5 = a great deal of conflict); higher scores indicated higher levels of conflict between the mother and father about child-related issues. Using this item and the three items noted above as part of the analyses, Jackson's (1999) study of urban, African American single mother-headed families, found that high mother-father relationship quality was associated with fewer behavior problems in their preschool children.

3.3.4. Maternal depressive symptoms.

The *Center for Epidemiological Studies Depression* (CES-D) scale (20 items; alpha = .86 in the present study) was used to measure maternal depressive symptoms. Per scoring instructions, four items were recoded so all items were in the same direction (Radloff, 1977). Using a four-point scale (0 = less than once a day to 3 = most or all of the time), mothers were asked questions such as how often during the past week they felt depressed, lonely, sad, and unusually bothered by things. Radloff (1977), who developed the CES-D scale, indicated that it does not measure clinical depression, however, groups with scores of 16 or above are considered to be at risk for depression. The possible range is 0 to 60, responses were summed for a total score. Radloff reported acceptable reliability, validity (including factor structures) across various ages, educational, and socioeconomic levels, including in Black and White samples. She reported that the Cronbach's alpha was about .85 in the general population. Construct and discriminant validity were established through comparing correlations of variables with similar self-report

scales and comparisons with depression evaluation ratings in clinical settings. Radloff found four dimensions in the scale through factor analyses: somatic/retarded activity, depressed affect, positive affect, and interpersonal problems. These dimensions were also found in studies of married men and women, although they differed slightly (Ross & Mirowsky, 1984). Roberts (1980) reported that in a comparison between Black and White sample groups, the CES-D showed internal consistency reliability and factor analyses that had the same structure across both groups. The alphas for Black and White groups both were .85. According to Wilcox, Field, Prodromidis, and Scafidi, (1998), the CES-D scores significantly correlated with the *Beck Depression Inventory* and the *Diagnostic Interview Schedule for Children* with a sample of adolescent mothers.

3.3.5. Parenting observations rating survey of the EC-HOME Inventory.

The Early Childhood Home Observation for Measurement of the Environment Inventory (EC-HOME) (Bradley & Caldwell, 2003) measures various aspects of parenting of preschool children. The EC-HOME Inventory assesses whether the child's home environment encourages academic and emotional growth to prepare him/her to achieve in school. Based on results from multiple studies, Leventhal, Martin, and Brooks-Gunn (2004) reported that the EC-HOME is a well-validated scale helpful in measuring the extent of a range of responsive parenting behaviors and environmental conditions in the home for children from a variety of backgrounds including Black and White families. For the present analyses, 20 home observation items (and no maternal self-report items) of the EC-HOME observer rater inventory were used (see, for example, Caldwell & Bradley, 2003; Leventhal et al., 2004). Observation items parallel 6 of 7 subscales that comprise the overall EC-HOME inventory: language stimulation; physical environment; responsivity; modeling; variety; and acceptance. From the "language stimulation" subscale, an

example item is “Parent uses correct grammar and pronunciation.” From the “physical environment” subscale, an example item is “Neighborhood is aesthetically pleasing.” From the “responsivity” subscale, an example item is “Mother converses with child at least twice during the visit.” From the “modeling” subscale, an example item is “Mother introduces interviewer to child.” From the “variety” subscale, an example item is “Parent uses complex sentence structure and some long words in conversing.” From the “acceptance” subscale, an example item is “Mother neither slaps nor spansks child during visit.” In short, the observation rater portion of the EC-HOME records the quality of the home environment (e.g. safety, cleanliness, cognitive stimulation, and mother’s affect and interactions vis-a-vis the focal child). Dichotomous response options are 0 = affirming a negative response and 1 = affirming the positive response. For example, in the present study, responses for the item “Neighborhood is aesthetically pleasing” were “not pleasing” = 0 or “pleasing” = 1.

Researchers assert that adequate parenting involves developing a supportive bond with one’s child (Maccoby & Martin, 1983) and providing a home environment that facilitates a child’s development (Rutter, 1987). Leventhal et al. (2004) compared results for the EC-HOME across five large data sets for Black and White 3-year-olds and found that subscales comprising the observation items alone achieved acceptable reliabilities, ranging from .50 to .90, and that this scale was associated significantly with child behavior problems. They noted that the observer rater portion of the EC-HOME had empirical advantages compared to the maternal self-report portion due to the lack of shared method variance. In the present study, the Cronbach’s alpha for the EC-HOME observation rater items was .67.

3.3.6. Frequency of father contact.

A single item with responses ranging from 1 = “almost every day” to 8 = “child has never seen father,” inquired about frequency of contact between the child and his/her biological father, as reported by the mother. Responses were reverse coded so that a higher score indicated greater father-child contact. Controlling for the amount of father contact was necessary to examine the perceived role of interparental relationship quality in the study model independent of the amount of contact. The author expected that frequency of father contact would be a problematic factor for two major reasons: 1) measurement of contact could not be independently observed for quality or quantity; 2) frequency of contact could be associated positively or negatively with child behaviors depending upon parenting quality (Sano, 2004).

Greater contact could be associated with positive outcomes if the quality of the relationship and the father’s modeling were healthy. Jackson (1999) found that greater father contact was associated with fewer mother-reported child behavior problems. However, if greater contact increases interparental conflict or negatively influences the child, child behavior could worsen (Ingoldsby, et al., 2001). In contrast, no contact would eliminate mother-father conflict and its potential for related child behavior problems; however, no contact could be associated with higher child behavior problems due to lack of support for the mother and diminished father-child emotional closeness (Hijjaw et al., 2003; Sano, 2004). Furthermore, King (1994) found that father involvement had minimal association with child behavior in either direction. The uncertainty of the impact of father contact led to the decision to incorporate this variable as a control in the study model.

3.3.7. Background variables.

The variables in this section comprise the demographic information about the sample. At the outset, the plan was to also use these background variables as control variables because previous research has reported consequential associations between them and the outcome (Jackson, 1999; Jackson et al., 2000). However, in the present study none correlated significantly with child behavior problems. Thus, following scientific parsimony, they were not used in regression analyses. The background variables were: the child's gender (0 = boy, 1 = girl); the mothers' educational attainment, the fathers' educational attainment (1 = grade school to 8 = AA degree or 14 years); the mother's employment status ("Are you currently working for pay?" 0 = yes and 1 = no); the father's employment status ("Is your child's father currently working at a job full time, part time, or not at all? 1 = full time, 2 = part time, 3 = full time and part time, 4 = not at all, 8 = don't know⁴"); whether child support has been agreed to (0 = no, 1 = yes); and annual family income and welfare receipt. Regarding family income, mothers were asked the following question: (note that the amount could include father's support or contribution) "Please think about your total combined family income during the past 12 months for all members of the family. Income from jobs, social security, retirement income, unemployment payments, or from any other source, and so forth. Which of these income brackets is closest to the total household income in your home?" Responses start with 1 = less than \$5,000 to 13 = \$100,000 and 99 = Don't know/refused. The following question assessed welfare receipt: "Are you and your child receiving cash welfare benefits?" Response options were 0 = no, 1=yes.

⁴ The response "don't know" was recoded into the "not employed" category.

3.4. Human Subjects

The University of Pittsburgh adheres to all federal regulations involving studies with human subjects. The Institutional Review Board approved the methods and procedures for the SBMP study as funded by the National Institutes of Mental Health. No additional human subject involvement was needed with respect to the present investigation.

3.5. Data Collection

As indicated earlier, data collection was completed as part of Jackson's SBMP study funded by the National Institute of Mental Health, Exploratory/Development Grant (R21R21 MH066846-02) and the National Center on Minority Health and Health Disparities (co-funder). The grant is entitled "*Single Black Mothers: Work, Mental Health, Parenting*." Mother data were collected in the mothers' homes at Time 1 from March to June of 2004 by Dr. Jackson and the author of this study. A preschool readiness assessment was conducted with each focal child. However, in the present study neither those data nor longitudinal data, which were collected in 2005 and 2006, were used.

4. RESULTS

Analyses tested for associations between and among interparental relationship quality, maternal depressive symptoms, parenting in the home environment, and pre-school child behavior problems in African American, low-income, single mother families. The results chapter is divided into four sections. First, description of the sample, descriptive analyses, and psychometric properties for each measure are presented. Second, bivariate relations between predictors and criterion are presented, including the background variables. These were used to determine which variables were entered into the regression. Third, findings from hierarchical regression analyses testing the study hypotheses are described. Finally, findings from exploratory, post hoc analyses using outcome subscale variables are reported.

4.1. Description of the Sample

One hundred African American single, low-income mothers were respondents in this study. The gender breakdown of the focal children is 52 boys and 48 girls, all of whom were either 3 or 4 years old. Seventy-nine percent of the mothers received cash welfare benefits. More than half (58%) had an agreement with the child's father to receive child support. As shown in Table 1.1, 20% had an Associates degree or 14 years of school; close to half (45%) of the mothers had some education beyond high school; 23% had a high school diploma or a GED; 11% had only some high school. According to the mothers' accounts of the fathers' education, 7% had an Associates degree or 14 years of school; 18% had some education beyond high school; 39% had a high school diploma or a GED; and 22% had some high school; 1% had completed only grade school. Thirteen percent of the mothers did not know the father's educational status. As shown in

Table 1.1, more than half (57%) of the mothers were employed; 16 worked full-time (i.e., 40 or more hours per week) and 16 worked 20 hours or less per week. The mothers reported that 27% of the birth fathers of the focal children were employed full-time; 8% were employed part time; 48% were not employed. Seventeen percent did not know the father's employment status. As shown in Table 1.2, the mean annual family income was in the third of ten increasingly higher range categories, which was \$10,000 to \$14,999.

Table 1.1: Description of the Sample – Education and Employment

Education		
	Mothers	Fathers
- Grade school only	0%	1%
- Some high school	11%	22%
- GED	11%	8%
- HS diploma	13%	31%
- HS+	45%	18%
- AA degree/14 yrs of schooling	20%	7%
- Don't know	---	13%
Total (N = 100)	100%	100%
Employment		
	Mothers	Fathers
- Employed Full-time (≥ 40 hrs/week)	16%	27%
- Employed Part-time	41%	8%
- Not employed	43%	48%
- Don't know	---	17%
Total (N = 100)	100%	100%

Table 1.2: Description of the Sample – Annual Income

Annual Household Income Categories	Participant Household Income Levels
< \$5,000	3%
\$5,000 to \$9,999	33%
\$10,000 to \$14,999	32%
\$15,000 to \$19,999	20%
\$20,000 to \$24,999	5%
\$25,000 to \$29,999	5%
\$35,000 to \$39,999	1%
\$40,000 to \$49,999	1%
\$50,000 to \$59,999	0%
\$60,000 +	0%
Total (N = 100)	100%

4.2. Descriptive Analyses

This section reports descriptive analyses of the main study variables including the mean, standard deviation, and tests and criterion used to determine whether psychometric properties met assumptions. Inter-item correlation and factor analyses items were conducted for each scale to explore psychometric properties and the underlying scale structure, as well as in the case of the *Problem Behavior Index* to create subscales for post hoc analyses. Parametric assumptions in order to run regression analyses and analysis of variance were assessed. Criteria for testing normality assumptions for each scale were ($< \pm .80$) for skewness and kurtosis and visual inspection of the histograms. When variables did not meet assumptions, they were transformed, if possible, or tricotomized. Refer to Table 2.1 and 2.2 for the descriptive statistics.

Table 2.1: Non-Transformed Variables: Means, Standard Deviations, Ranges, and Skewness/Kurtosis

Variable	M	Median	SD	Range	Skewness/Kurtosis
Satisfaction with Father's Parenting _a	2.06	1.83	1.95	0-5	.22/-1.61
Interparental Conflict _a	2.22	2	2.09	0-5	.21/-1.62
Maternal Depressive Symptoms _b	14.62	13.5	9.10	0-3	.91/.82
Maternal Parenting (HOME) _b	12.41	13	2.20	0-1	-1.21/2.64
Child Behavior Problems _c	1.58	n.a.	.25	1-3	.54/-.13
Externalizing Subscale _b	1.66	1.6	.38	1-3	.93/.60
Internalizing Subscale _c	1.56	n.a.	.31	1-3	.57/-.38
Father Contact Frequency _a	4.94	5	2.46	1-8	-.10/-1.32

Note. The median is reported as a measure of central tendency for variables that were transformed or tricotomized.

_a These variables later were recoded into 3-level category variables.

_b These variables later were transformed to correct for non-normality.

_c These variables met assumptions for normality so were not transformed.

Table 2.2: Transformed and Tricotomized Variables: Skewness/Kurtosis

Variable	Skewness/Kurtosis
Satisfaction with Father's Parenting _a	n.a.
Interparental Conflict _a	n.a.
Maternal Depressive Symptoms _b	.23/-.54
Maternal Parenting (HOME) _b	-.45/-.03
Externalizing Subscale _b	.41/-.27
Father Contact Frequency _a	n.a.

Note. Statistics shown are frequencies done following transformation.

_a These variables were recoded into 3-level category variables due to extreme non-normality.

_b These variables were transformed to correct for non-normality.

4.2.1. Outcome variables: Child Behavior Problems (BPI) and subscales.

On average, mothers reported that their focal preschool children's overall behavior problems to be of 1.58⁵ (SD of .25) out of 3; skewness was .54 and kurtosis was -.13. The range of responses was 1 to 3 and higher scores indicated greater behavior problems. The behaviors most noted by mothers as problematic were (in descending order) "demands a lot of attention" (M = 2.30), "clings to adults" (M = 2.24), "has sudden changes in mood or feeling" (M = 2.20), and "is restless or over active, cannot sit still" (M = 2.07). The five behaviors mothers noted as least problematic were "feels worthless or inferior" (M = 1.02), "is not liked by other children" (M = 1.09), "is withdrawn, does not get involved with others" (M = 1.10). The scale diagnostics showed that all assumptions were met and Cronbach's alpha was .83.

Two factor analyses were conducted. The first was done to investigate the underlying structure of the 26-item scale. A principal components analysis showed that 20% of the variance was accounted for by the first factor. The second was done to create subscales for post hoc analyses and compare to the factor structure found in the NLSY79 study to analyses for the current study (Center for Human Resource Research, 2000). As was done in The National Longitudinal Study of Youth studies and by Spencer, Fitch, Grogan-Kaylor, and McBeath (2005), the BPI was divided into two subscales: Externalizing and Internalizing behaviors. These two subscales were created by conducting a second factor analysis that specified two factors, with a varimax rotation. Refer to Table 3 for the mean, standard deviation and factor structure of the subscale items.

Based on examination of the items in the components and original researchers breakdown, the two resulting subscales were identified as Externalizing behaviors and Internalizing behaviors. Ten items loaded on component 1 $\geq .40$ and were described by the author as

⁵ Score was mean not sum.

Externalizing behavior items; whereas 9 Internalizing behavior items loaded on component 2 $\geq .40$. One item loaded on both components, but loaded higher on component 1 Externalizing (.52) than on component 2 Internalizing (.41), so the item was included only in the Externalizing subscale. Other researchers found a similar breakdown into Externalizing and Internalizing subscales (Center for Human Resource Research, 2000; Spencer et al., 2005). The following items loaded $< .40$ on both factors: feels worthless or inferior; is withdrawn; does not get involved with others; feels or complains that no one loves him/her; clings to adults; has difficulty concentrating; cannot pay attention for long; cries too much cheats or lies; does not feel sorry after s/he misbehaves. In NLSY79 study, the first five of the items listed above loaded on the Internalizing subscale, and last three loaded on their Externalizing subscale (Center for Human Resource Research, 2000). Because replication was partially successful, the factor structure from the current study was chosen from which the subscales were created. Scores on the Externalizing subscale violated the normality assumption ($M = 1.66$, $SD = .38$); Cronbach's alpha was .80, skewness was .93 and kurtosis was .60. Using the natural log transformation, an Externalizing variable was created, which met all the normality assumptions (Median = .20), skewness was .41 and kurtosis was -.27. Raw scores on the Internalizing subscale ($M = 1.56$, $SD = .31$) with a skewness of .57 and kurtosis of -.35 met all the assumptions; Cronbach's alpha was .67.

Table 3: Mean,⁶ Standard Deviation, and BPI Factor Loadings of Externalizing Behavior (Factor 1 and Internalizing Behavior (Factor 2)

BPI Items - During the last three months, s/he...	Mean	SD	Factor1	Factor2
Bullies or is cruel or mean to others	1.59	.71	.68	.21
Has trouble getting along with other children	1.28	.51	.68	-.02
Is stubborn, sullen, or irritable	1.97	.60	.62	.07
Has a very strong temper and loses it easily	1.81	.73	.59	.36
Is not liked by other children	1.09	.32	.58	.15
Is restless or overactive, cannot sit still	2.07	.76	.54	-.04

⁶ For items that did not load on either factor no mean or SD is provided.

Table 3 cont'd

Breaks things on purpose or deliberately destroys his/her own or other's things	1.45	.63	.53	.15
Is impulsive, or acts without thinking	1.61	.66	.52	.41
Is disobedient at home	1.79	.59	.43	.32
Argues too much	1.95	.76	.42	.30
Is unhappy, sad, or depressed	1.13	.34	-.18	.70
Is too dependent on others	1.29	.50	-.04	.58
Is easily confused, seems to be in a fog	1.25	.50	.16	.56
Is too fearful or anxious	1.55	.63	.18	.53
Has a lot of difficulty getting his/her mind off certain thoughts (has obsessions)	1.41	.62	.11	.51
Has sudden changes in mood or feeling	2.20	.64	.19	.49
Is rather high strung, tense, and nervous	1.33	.55	.13	.45
Demands a lot of attention	2.30	.64	.19	.41

4.2.2. Predictor variables: Mother's Satisfaction with Father's Parenting and Mother's Perception of Interparental Conflict.

Mothers tended to be dissatisfied with the father's parenting, but their perceptions of conflict with the father about the child were primarily high or low. On a scale of 0 to 5, with higher scores indicating greater satisfaction, 37% (of 100) mothers reported a "0" indicating that they were very dissatisfied with father's parenting. The median of 1.83 indicates that mothers were more often neutral or dissatisfied with the father's parenting. Of the 3 items in this scale, they were more satisfied with "the amount of love and caring your child's father has shown him/her" (Median = 3) than with the other parenting items. None reported they were very dissatisfied (i.e., "0") with the love provided by the father. In contrast, they were very dissatisfied with "the amount of time your child's father spends with him/her" (Median = .5). Fifty percent of the mothers (N = 100) reported that they were very dissatisfied with the amount of time spent by the father, and 22% reported that they were very satisfied. Mothers were even more dissatisfied with "the amount of money and help your child's father has provided for raising him/her" (Median =

.0). Fifty-three percent of mothers were very dissatisfied with the support provided by the father and only 17% were very satisfied. On a scale of 0 to 5, with higher scores indicating greater conflict, the frequencies showed that mothers' perception of conflict (Median = 2) was 38% (N=100) reported "0" = no conflict and 27% reported "5" = a great deal of conflict. The remaining 35% responded in the midrange.

Neither mother's satisfaction with father's parenting nor mothers' perception of interparental conflict met the normality assumption. Father's parenting, a 3-item variable, had a skewness of .22 and a kurtosis of -1.61. The single-item conflict variable had a skewness of .21 and a kurtosis of -1.62. Both variables were recoded into 3-level categorical variables: conflict (1 = low conflict, 2 = medium conflict, 3 = high conflict) and father's parenting (1 = not satisfied, 2 = somewhat satisfied, 3 = very satisfied). For mother's satisfaction with father's parenting the recodes were: (0 = 1, n = 37), (.33 thru 3.67 = 2, n = 35), and (4 thru highest = 3, n = 28). For mother's perception of interparental conflict the recodes were: (0=1, n=38) (1, 2, 3 = 2, n = 31) (4, 5 =3, n = 31). The rationale behind this method of tricotomizing was to evenly distribute the cases among the 3 levels, yet reflect the fact that the highest number of cases were at the low end.

4.2.3. Moderator variables: Maternal depressive symptoms and maternal parenting.

The *Center for Epidemiological Studies Depression Scale (CES-D)* results showed that the mothers as a group did not report significant depressive symptoms (M = 14.62; Median = 13.5). According to Radloff (1977), out of a total possible score of 60, 16 is the cutoff for possible depression, but only as a group score. She found that only 15% to 19% of her participants had scores above 16. Scores in this study ranged from 1 to 47 with a mode of 6. Mothers reported that the symptom that occurred most often during the past week than any other was "I felt that

everything I did was an effort” ($M = 1.85$). The next most often reported symptom was “My sleep was restless” ($M = 1.16$). They also reported that they seldom “felt hopeful about the future” ($M = 1.05$). Symptoms reported as occurring least often were “I felt that people disliked me” ($M = .23$), “I thought my life had been a failure” ($M = .25$) and “I felt fearful” ($M = .29$).

The CES-D had a satisfactory Cronbach’s alpha of .86, with 20 items. Since the skewness of .91 and a kurtosis of .82 were high, a square root transformation was used to normalize the variable, resulting in a skewness of .23 and kurtosis of -.54. Consistent with a unidimensional structure, a principal component analysis showed that all 20 items loaded above .40 on the first factor of the pre-rotation matrix. Thirty-two percent of the variance was explained using a single factor solution.

Based on the EC-HOME observer rater survey, ratings of maternal parenting in the home environment appeared relatively high. Following an item analysis, four items were dropped from the EC-HOME observer rater survey scale. One was dropped due to zero variability; the others were dropped to maximize the Cronbach’s alpha to .67, leaving 16 items. One home environment was rated as 16, 3 were rated as 1, most ranged from 12 to 15. Items that observers most frequently rated as positive were “mother uses complex sentence structure” (99%), “Building has no potentially dangerous structural or health defects” (96%) and “mother’s voice conveys positive feeling” (94%). Items rated as occurring the least by observers were “mother introduces interviewer to child” (5%) and “mother sets up situation that allows child to ‘show off’” (37%).

A principal component analysis found that the 16 items all loaded at .40 or above on the first factor of the pre-rotation matrix. The scale did not meet assumptions for normality with a

skewness of -1.21 and a kurtosis of 2.64. The square transformation was used to normalize the maternal parenting observer ratings variable with a skewness of -.45 and a kurtosis of -.03.

4.2.4. Control Variable: Frequency of Father Contact.

As shown in Table 1, findings from mothers' accounts showed that frequency of father-child contact varied considerably by family. The modal frequency, which was the highest possible score, was 8, "Almost every day during the past 12 months." This single item variable had 8 response options ranging from "never had contact" to "almost daily contact." Eleven mothers reported that their child had never seen his/her father, but 27 of 100 reported contact "almost every day." Because the variable was markedly non-normal (kurtosis of -1.32), it was recoded into a 3-level categorical variable (1 = low contact, $n = 36$; 2 = medium contact, $n = 34$; 3 = high contact, $n = 30$) based on an effort to evenly distribute the cases into the three levels. The recoding was done as follows ($N=100$): Child has never seen father (1=3), child has seen father: zero times in the past 12 months (2 = 3), once in the past 12 months (3 =3); 2-11 times in the past 12 months (4 = 2); 1-3 times per months (5 = 2); about once per month (6 = 2); 2-5 times per week (7 = 1); and almost every day (8 =1).

4.3. Bivariate Correlations

Due to the non-normal distribution of most of the study variables, non-parametric measures of bivariate correlations (Spearman's rho) are shown in Table 4 using the non-transformed variables. Contrary to the established literature about the association between interparental relationship quality and child behavior problems within White samples (Davies et al., 2002), in this sample of African American, low-income, single mother families there were no significant correlations between mother's satisfaction with father's parenting ($r_s = -.10$) or interparental conflict about issues related to the child ($r_s = .17$) and child behavior problems. Thus, Hypothesis

1 was not supported, although the association was in the expected direction (i.e., negative for father's parenting and positive for conflict). Children with mothers who reported higher satisfaction with father's parenting and lower conflict with him did not present notably fewer behavior problems as perceived by the mother. Employed mothers were more satisfied than at-home mothers with the father's parenting ($r_s = .29, p < .01$) and their children had more frequent contact with their father ($r_s = .27, p < .01$).

Greater frequency of father contact was associated with mother's higher satisfaction with father's parenting ($r_s = .74, p < .01$). Father contact was significantly positively correlated with his employment ($r_s = .27, p < .01$), mother's employment ($r_s = .27, p < .01$), annual household income ($r_s = .30, p < .01$), and having a child support agreement ($r_s = .24, p < .05$). Maternal receipt of cash welfare benefits correlated negatively with father contact ($r_s = -.25, p < .05$). In sum, greater father contact was associated with both parents working for pay, mothers having a higher income, having a child support agreement, and reporting a lower incidence of cash welfare receipt.

The Externalizing and Internalizing *Behavior Problem Index* subscales also did not correlate with perceived interparental relationship quality. Mother's satisfaction with father's parenting did not correlate with externalizing ($r_s = -.07$) or internalizing behavior ($r_s = -.17$); and interparental conflict about the child did not correlate with externalizing ($r_s = .16$) or internalizing behavior ($r_s = .10$). Internalizing subscale scores were associated with the (control variable) frequency of father contact ($r_s = -.24, p < .05$). Greater father-child contact was associated with maternal perceptions of fewer internalizing behavior problems. Another finding was that maternal depressive symptoms were correlated negatively with mothers' satisfaction with fathers' parenting ($r_s = -.22, p < .05$). This suggests that mothers with greater depressive

symptoms were less satisfied with the fathers' parenting, or – just as likely – that less satisfaction with fathers' parenting predicted greater maternal depressive symptoms.

Table 4 shows that, as anticipated by Hypothesis 2_a and 2_b, child behavior problems correlated modestly with maternal depressive symptoms ($r_s = .27, p < .01$) and maternal parenting in the home ($r_s = -.29, p < .01$) in the expected directions. Lower self-reported depressive symptoms and more developmentally facilitative maternal parenting, as rated by the interviewers, were associated with fewer child behavior problems. Mothers' parenting was positively correlated with maternal employment ($r_s = .23, p < .05$) and mother's education level ($r_s = .21, p < .05$) and negatively with welfare receipt ($r_s = -.26, p < .05$). Being employed and having a higher education were linked to more optimal parenting; whereas receiving cash welfare benefits was associated with poorer parenting. Maternal report of externalizing behavior correlated modestly and inversely with maternal parenting ($r_s = -.24, p < .05$). Poorer parenting was associated with slightly greater externalizing child behavior problems. Maternal reports of internalizing behavior problems correlated positively and modestly with maternal depressive symptoms ($r_s = .38, p < .01$) and modestly with welfare receipt ($r_s = .21, p < .05$), but negatively with maternal parenting ($r_s = -.26, p < .01$). More reported depressive symptoms were associated with greater child internalizing problems, as was receiving cash welfare benefits. More optimal parenting was associated with fewer such problems.

None of the background variables, including child gender, parents' education, employment status, annual income, welfare receipt, or child support correlated with total child behavior problems, externalizing behavior problems, interparental conflict, or maternal depressive symptoms. However, welfare receipt was associated modestly with internalizing behavior problems ($r_s = .21, p < .05$). Child gender also did not significantly correlate with any variables.

Mothers' employment positively correlated with her level of education ($r_s = .33, p < .01$) and annual household income ($r_s = .27, p < .01$). Higher maternal education indicated a greater likelihood of having a child support agreement ($r_s = .30, p < .01$). Higher paternal education correlated positively with mother's employment ($r_s = .21, p < .05$) and his employment ($r_s = .28, p < .01$). In sum, either modest associations or no associations characterized most connections among the study variables.

Table 4: Spearman rho Bivariate Correlations

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1 Child Gender	--															
2 Mother's Education	.17	--														
3 Mother's Employment	.10	.33**	--													
4 Father's Employment	.05	.18	.13	--												
5 Father's Education	-.009	.21*	.16	.28**	--											
6 Child Support	-.03	.30**	.29**	.16	.19	--										
7 Cash Welfare Receipt	.05	-.11	-.40**	-.09	-.02	-.19	--									
8 Household Income	.11	.04	.27**	.19	.18	-.08	-.17	--								
9 Father Contact	-.005	.15	.27**	.27**	.05	.24*	-.25*	.30**	--							
10 Father's Parenting ^a	-.06	.18	.29**	.17	.06	.18	-.18	.25*	.74**	--						
11 Interparental Conflict	.18	-.04	-.05	-.09	-.15	-.02	.02	.02	-.01	-.18	--					
12 Maternal Depressive Symptoms	.03	-.02	-.09	-.15	.03	.01	.03	-.17	-.19	-.22*	.13	--				
13 Mother's Parenting (HOME)	.09	.21*	.23*	-.004	-.09	.11	-.26*	.05	.10	.10	-.12	-.09	--			
14 Child Behavior Problems	-.09	-.06	-.15	.01	-.02	-.01	.12	-.08	-.10	-.10	.17	.27**	-.29**	--		
15 Externalizing Problems	-.13	-.05	-.08	.05	.03	.09	-.03	-.01	.01	-.07	.16	.19	-.24*	.87**	--	
16 Internalizing Problems	-.01	.04	-.17	-.06	.10	-.04	.21*	-.15	-.24*	-.17	.10	.38**	-.26**	.78**	.49**	--

^a Father's Parenting refers to Mother's satisfaction with father's parenting

** $p < .01$, * $p < .05$

4.4. Multiple Regression Analyses

Hierarchical multiple regression analyses were conducted to examine whether, or to what extent, the predictor variables of mother's satisfaction with father's parenting, interparental conflict about the child, maternal depressive symptoms and more developmentally facilitative maternal parenting would be associated with the outcome variable child behavior problems, after controlling for frequency of father contact in urban African American, low-income, single mother families (hypotheses 1, 2_a and 2_b). In addition, it was hypothesized that fewer maternal depressive symptoms as well as more adequate parenting would each buffer the negative effect of poorer interparental relationship quality (i.e., lower maternal satisfaction with fathers' parenting and higher interparental conflict) on child behavior problems, after controlling for frequency of father contact (hypotheses 3_a and 3_b). Hierarchical regression analyses use a hierarchical entry procedure, which provides information about each variable in the model at each step in the analyses.

For regression analyses, the predictor variables of interparental conflict and mother's satisfaction with father's parenting and the control variable frequency of father contact were transformed into dummy variables. The lowest level (i.e., 1) was used as the reference value for each of the three variables, because for each variable this level had the most cases. Thus, for each variable there was a medium dummy variable (coded 1 = medium, 0 = other) and a high dummy variable (coded 1 = high, 0 = other). Then, product terms were created by multiplying each moderator variable score by the medium and high dummy coded variables.

To test the hypotheses, four separate hierarchical multiple regression analyses procedures were performed to test each combination of independent variable and moderator variable in the study model. See Tables 5.1 through 5.4. The advantage of using this approach to the analyses

was to increase statistical power considering the small sample size and number of variables involved. In the first block, the frequency of father contact was entered. As shown in these tables, frequency of father contact was not significantly associated with child behavior problems, $F(2, 97) = 1.0, p = .37$ and explained only 2.5% of the variance. In the second, both dummy variables (medium and high) of one of the independent variables were entered, which yielded main effects of the independent variables on child behavior problems to test hypothesis 1. Then, one moderator variable was entered into the third block, which yielded main effects of these variables as predictors on child behavior problems to test hypotheses 2_a and 2_b. One set of product terms were entered into the final block, which tested hypotheses 3_a and 3_b.

To determine whether frequency of father contact impacted the model, each test of the hypotheses was done both with and without this control variable. A negligible difference existed with the inclusion or noninclusion of the control variable in the models. However, in the case of maternal depressive symptoms, by controlling for frequency of father contact, maternal depressive symptoms slipped from $F(1,96) = 5.03, p = .02$ to $F(1,94) = 3.72, p = .06$, in a model that included mother's perception of interparental conflict. Due to this singular exception, only the full models that included the control variable, were reported. In the interest of scientific parsimony and statistical power, the background variables were not included in the regression analyses because no significant correlations were found with the outcome variable.

Table 5.1: Hierarchical Multiple Regression Analysis to Predict Child Behavior Problems with Mother's Satisfaction with Father's Parenting as the Independent Variable and Maternal Depressive Symptoms (CES-D) as the Moderator.

	B	β	<i>t</i>	<i>p</i>	R^2	Adj R^2	ΔR^2	<i>FInc</i>	<i>df</i>	<i>pInc</i>
Step 1: Dummy Coded Control Variable – Frequency of Father Contact					.02	.00	.02	1.00	2,97	.37
Medium Father Contact	-.08	-.14	-1.18	.24						
High Father Contact	-.08	-.16	-1.30	.20						
Step 2: Dummy Coded Independent Variable – Mother's Satisfaction with Father's Parenting					.03	-.02	.01	.25	2,95	.78
Medium Father's Parenting	.01	.02	.15	.88						
High Father's Parenting	-.05	-.09	-.51	.61						
Step 3: Moderator Variable – Maternal Depressive Symptoms					.07	.02	.05	5.92	1,94	.03*
Maternal Depressive Symptoms	.04	.22	2.16	.03*						
Step 4: Interaction Terms: Dummy Coded Independent Variable X Moderator – Father's Parenting X Maternal Depressive Symptoms					.09	.02	.02	1.10	2,92	.34
Medium Father's Parenting X Depressive Symptoms	.07	.51	-1.33	.19						
High Father's Parenting X Depressive Symptoms	.07	.45	1.22	.23						

Note. All statistics reflect estimates for variables at step of entry.

* $p < .05$

Table 5.2: Hierarchical Multiple Regression Analysis to Predict Child Behavior Problems with Mother's Satisfaction with Father's Parenting as the Independent Variable and Maternal Parenting (EC-HOME observer rating survey) as the Moderator.

	B	β	<i>t</i>	<i>p</i>	R²	Adj R²	Δ R²	<i>F</i>Inc	<i>df</i>	<i>p</i>Inc
Step 1: Dummy Coded Control Variable – Frequency of Father Contact					.020	.00	.02	1.00	2,97	.37
Medium Father Contact	-.08	-.14	-1.18	.24						
High Father Contact	-.08	-.16	-1.30	.20						
Step 2: Dummy Coded Independent Variable – Mother's Satisfaction with Father's Parenting					.025	-.02	.01	.25	2,95	.78
Medium Father's Parenting	.01	.02	.15	.88						
High Father's Parenting	-.05	-.09	-.51	.61						
Step 3: Moderator Variable – Maternal Parenting (EC-HOME)					.083	.03	.06	5.92	1,94	.02*
Maternal Parenting (EC-HOME)	-.001	-.24	-2.43	.02*						
Step 4: Interaction Terms: Dummy Coded Independent Variable X Moderator – Father's Parenting X Maternal Parenting (EC-HOME)					.117	.05	.03	1.78	2,92	.18
Medium Father's Parenting X Maternal Parenting (EC-HOME)	.000	.24	1.41	.16						
High Father's Parenting X Maternal Parenting (EC-HOME)	.001	.47	1.45	.15						

Note. All statistics reflect estimates for variables at step of entry.

* $p < .05$

Table 5.3: Hierarchical Multiple Regression Analysis to Predict Child Behavior Problems with Mother's Perception of Interparental Conflict over the Child as the Independent Variable and Maternal Depressive Symptoms (CES-D) as the Moderator.

	B	β	<i>t</i>	<i>p</i>	R²	Adj R²	Δ R²	<i>F</i>Inc	<i>df</i>	<i>p</i>Inc
Step 1: Dummy Coded Control Variable – Frequency of Father Contact					.020	.00	.02	1.00	2,97	.37
Medium Father Contact	-.08	-.14	-1.18	.24						
High Father Contact	-.08	-.16	-1.30	.20						
Step 2: Dummy Coded Independent Variable – Mother's Perception of Interparental Conflict					.040	-.001	.02	.98	2,95	.38
Medium Interparental Conflict	.04	.07	.62	.54						
High Interparental Conflict	.09	.16	1.40	.17						
Step 3: Moderator Variable – Maternal Depressive Symptoms					.077	.03	.04	3.72	1,94	.06
Maternal Depressive Symptoms	.04	.20	1.93	.06						
Step 4: Interaction Terms: Dummy Coded Independent Variable X Moderator – Interparental Conflict X Maternal Depressive Symptoms					.087	.02	.01	.55	2,92	.58
Medium Interparental Conflict X Maternal Depressive Symptoms	.01	.07	.18	.85						
High Interparental Conflict X Maternal Depressive Symptoms	.05	.41	.98	.33						

Note. All statistics reflect estimates for variables at step of entry.

* $p < .05$

Table 5.4: Hierarchical Multiple Regression Analysis to Predict Child Behavior Problems with Mother's Perception of Interparental Conflict over the Child as the Independent Variable and Maternal Parenting (EC-HOME observer rating survey) as the Moderator.

	B	β	<i>t</i>	<i>p</i>	R²	Adj R²	Δ R²	<i>F</i>Inc	<i>df</i>	<i>p</i>Inc
Step 1: Dummy Coded Control Variable – Frequency of Father Contact					.020	.00	.02	1.00	2,97	.37
Medium Father Contact	-.08	-.14	-1.18	.24						
High Father Contact	-.08	-.16	-1.30	.20						
Step 2: Dummy Coded Independent Variable – Mother's Perception of Interparental Conflict					.040	-.001	.02	.98	2,95	.38
Medium Interparental Conflict	.04	.07	.62	.54						
High Interparental Conflict	.09	.16	1.40	.17						
Step 3: Moderator Variable – Maternal Parenting (EC-HOME)					.088	.40	.05	4.97	1,94	.03*
Maternal Parenting (EC-HOME)	-.001	-.22	-2.22	.03*						
Step 4: Interaction Terms: Dummy Coded Independent Variable X Moderator – Interparental Conflict X Maternal Parenting (EC-HOME)					.116	.05	.03	1.43	2,92	.25
Medium Interparental Conflict X Maternal Parenting (EC-HOME)	.002	.55	1.42	.16						
High Interparental Conflict X Maternal Parenting (EC-HOME)	.002	.52	1.42	.16						

Note. All statistics reflect estimates for variables at step of entry.

* $p < .05$

4.4.1. Hypothesis 1.

Hypothesis 1 was not supported: no significant main effect was found of mother's satisfaction with father's parenting, $F(2,95) = .25, p = .78$ (Tables 5.1 and 5.2), or interparental conflict, $F(2,95) = .98, p = .38$ (Tables 5.3 and 5.4), on child behavior problems. Father's parenting and interparental conflict accounted for only $\Delta R^2 = 1\%$ and $\Delta R^2 = 2\%$ respectively of the variance in child behavior problems. As shown in Table 4, the Spearman rho correlations reinforce the findings that hypothesis 1 was not supported.

4.4.2. Hypothesis 2_a.

Per Table 5.1, hypothesis 2_a was supported, maternal depressive symptoms were associated with fewer mother reported child behavior problems, $F(1,94) = 4.66, p = .03$ in the model that included mother's satisfaction with father's parenting. In Table 5.3, the main effect of depressive symptoms was near significance at $F(1,94) = 3.72, p = .057$ in a model that included mother's perception of interparental conflict. Fewer maternal depressive symptoms were associated with fewer child behavior problems in both models: mother's satisfaction with father's parenting ($\beta = .22, t = 2.16, p = .03$), but was not quite significant in the model with interparental conflict, ($\beta = .20, t = 1.93, p = .06$). These findings corresponded with the Spearman Rho correlations as shown in Table 4. Maternal depressive symptoms explained $\Delta R^2 = 5\%$ of the variance in child behavior problems.

4.4.3. Hypothesis 2_b.

As shown in Tables 5.2 and 5.4, hypothesis 2_b was supported, maternal parenting was significantly associated with child behavior problems both in the model that included mother's satisfaction with father's parenting, $F(1,94) = 5.92, p = .02$ and similarly in the model that included mother's perception of interparental conflict, $F(1,94) = 4.97, p = .03$. Maternal

parenting accounted for $\Delta R^2 = 6\%$ and $\Delta R^2 = 5\%$ respectively of the variance in child behavior problems. Greater maternal parenting adequacy was associated with fewer child behavior problems ($\beta = -.24$, $t = -2.43$, $p = .02$) with similar results in both models. These findings were consistent with the correlations shown in Table 4.

4.4.4. Hypothesis 3_a.

As shown in Tables 5.1 and 5.3, regression analyses revealed that the hypothesis that fewer maternal depressive symptoms would buffer the negative effects of mother's lower satisfaction with father's parenting as well as the negative effects of higher interparental conflict on child behavior problems was not supported, $F(2,92) = 1.10$, $p = .34$ and $F(2,92) = .55$, $p = .58$ respectively. The interaction effect accounted for $\Delta R^2 = 2\%$ and $\Delta R^2 = 1\%$ of the variance in child behavior problems respectively.

4.4.5. Hypothesis 3_b.

As shown in Tables 5.2 and 5.3, regression analyses showed that greater maternal parenting adequacy did not buffer the negative effects of lower satisfaction with father's parenting or buffer the negative effects of higher interparental conflict on child behavior problems as hypothesized. In a model with mother's satisfaction with father's parenting, $F(2,92) = 1.78$, $p = .18$ and in the conflict model, $F(2,92) = 1.43$, $p = .25$. The interaction effect accounted for $\Delta R^2 = 3\%$ of the variance in child behavior problems in both models.

4.5. Additional Findings

To further investigate the study model, 3 (one independent variable) x 2 (one dichotomized moderator) factorial analyses of variance were conducted to test each hypothesis for the purpose of confirming the findings from the hierarchical regression analyses. ANOVA procedures were performed because the predictor variables were three-level categorical variables and interaction

plots are generated in SPSS output. As was done with the hierarchical regression analysis, this procedure was run four times, so that each combination of independent variable and moderator were included in a model. Models were run with and without the control variable, which were not found to be predictive in the regressions. Due to cell size minimum requirements (i.e. > 5 per cell) only models without the control variable were considered. In order to use the maternal depressive symptoms (CES-D) and the EC-HOME observer rater (maternal parenting) variables in this procedure, both were recoded into dichotomous variables using a median split.

For each hypothesis, the factorial ANOVAs supported the hierarchical regression analyses. The ANOVAs reinforced the findings that hypothesis 1 was not supported; mother's satisfaction with father's parenting, $F(2,94) = .17, p = .84$ and interparental conflict, $F(2,94) = .26, p = .78$. For hypothesis 2_a, the finding of significance was supported, $F(1,94) = 9.91, p = .002$ in a model with mother's satisfaction with father's parenting and $F(1,94) = 9.58, p = .003$ and in a model with interparental conflict. For hypothesis 2_b, the finding of significance coincided with the results from the ANOVAs, $F(1,94) = 5.98, p = .02$ with F statistics that were nearly identical in both models. Hypothesis 3_a which predicted an interaction effect between maternal depressive symptoms and mother's satisfaction with father's parenting as well as with interparental conflict also was not supported according to these additional analyses, $F(2,94) = .34, p = .97$ and $F(2,94) = .17, p = .84$ respectively. Similar to hypothesis 3_b, the ANOVA procedures confirmed the hierarchical regression analyses, $F(2,94) = .15, p = .86$ and $F(2,94) = 2.92, p = .06$ respectively. In sum, hypotheses 1, 3_a, and 3_b were not supported, but hypotheses 2_a and 2_b were supported and controlling for frequency of father contact made no notable difference in these results.

4.6. Exploratory Analyses

Exploratory analyses were conducted using the *Behavior Problem Index* subscales, Externalizing behavior and Internalizing behavior, which were created via a factor analysis as described in the methods chapter. Descriptive statistics were shown in Tables 2.1 and 2.2. As shown in Table 4, no significant bivariate correlations were found between externalizing behavior and any background variable and only one of the main study variables. Externalizing behavior had a significant negative correlation with maternal parenting ($r_s = -.24, p < .05$), indicating that more supportive parenting was associated with fewer externalizing behavior problems. More frequent father-child contact ($r_s = -.24, p < .05$) and fewer maternal depressive symptoms ($r_s = .38, p < .01$) were associated with fewer internalizing problem behaviors, as was more adequate maternal parenting ($r_s = -.26, p < .01$). Receiving welfare benefits ($r_s = .21, p < .05$) was associated with greater internalizing behavior problems.

The same regression procedures (i.e., four models of hierarchical regressions and factorial ANOVAs) were conducted using the subscale variables as the dependent variables (i.e., substituting the child behavior problems variable. These analyses showed that externalizing behavior problems had no significant associations in any of the models. Therefore, the remaining results will discuss only associations with internalizing behaviors. As shown in Table 6, a new development in this study was the finding that frequency of father contact was significantly associated with internalizing child behavior problems, $F(2,97) = 3.41, p = .04, \Delta R^2 = 7\%$. Compared to the referent group, the group with the most frequent father contact had the fewest internalizing problems ($\beta = -.30, t = -2.58, p = .01$).

As was found with the main study hypotheses, neither mother's satisfaction with father's parenting, $F(2,95) = .03, p = .97$ nor mother's perception of interparental conflict, $F(2,95) = .15, p = .86$ had a main effect on children's internalizing behavior problems. Each of these variables

only explained $\Delta R^2 < 1\%$ of the variance. Also similar to the main study hypotheses was that maternal depressive symptoms $F(1,94) = 10.15, p = .002$ and maternal parenting $F(1,94) = 5.74, p = .02$ were both associated with internalizing behavior problems. In each model, the direction was as expected showing that fewer depressive symptoms ($\beta = .30, t = 3.14, p = .002$) as well as greater maternal parenting adequacy ($\beta = -.23, t = -2.40, p = .02$) were associated with fewer internalizing child behavior problems. None of these effects were found with externalizing problems, despite finding a correlation with maternal parenting.

No interactions were suggested by the findings, except one. As shown in Table 6, hierarchical regression analyses showed an interaction effect between mother's satisfaction with father's parenting and her parenting on internalizing child behavior problems $F(2,92) = 5.56, p = .005$. Because this finding was unexpected, ANOVAs were analyzed that contradicted this finding, $F(2,94) = .63, p = .53$. An additional ANOVA was run that included the father contact dummy variables as covariates to determine their influence in the model, $F(2,92) = .51, p = .61$. From these analyses, the interaction did not clearly conform to the buffering prediction (Whisman & McClelland, 2005). However, as shown in Figure 2 mother's parenting had the least association with internalizing child behavior problems in families where the mothers were most satisfied with father's parenting (albeit the effect size was small).

In every other model, hierarchical regression analyses and the ANOVAs results were similar. Coinciding with the regression analyses, no main effect of mother's satisfaction with father's parenting, $F(2,94) = .37, p = .69$ nor mother's perception of interparental conflict, $F(2,94) = .31, p = .73$ on children's internalizing behavior problems was found. The ANOVA results supported regression findings that maternal depressive symptoms and maternal parenting

were associated with internalizing behavior problems, $F(1,94) = 16.63, p = .001$ and $F(1,94) = 6.28, p = .01$ respectively.

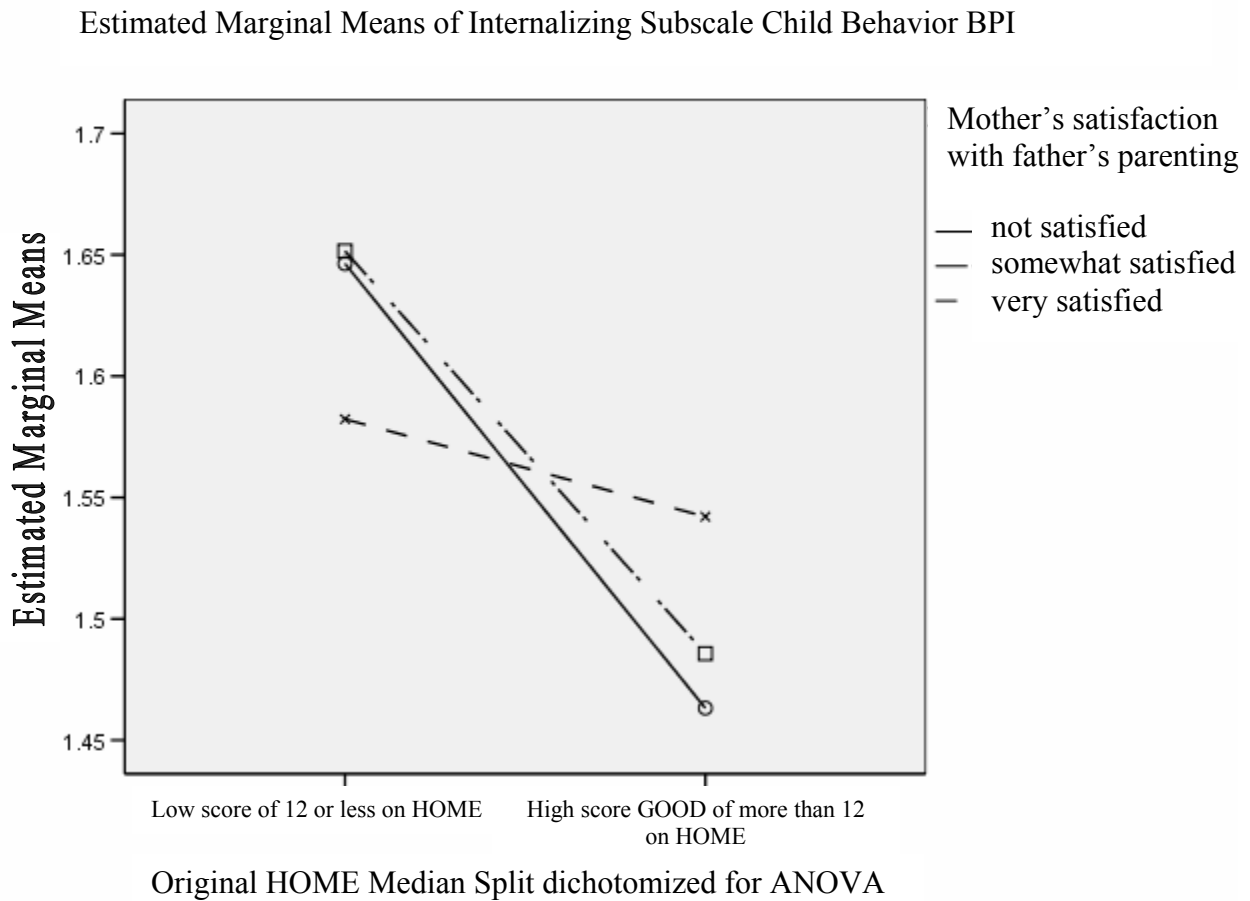


Figure 2: Mother's Satisfaction with Father's Parenting and Mother's Parenting (EC-HOME) Observer Rating Survey on Internalizing Child Behavior with Frequency of Father Contact Dummy Variables as Covariates.

Table 6: Hierarchical Multiple Regression Analysis to Predict Internalizing Child Behavior Problems with Mother's Satisfaction with Father's Parenting as the Independent Variable and Maternal Parenting (EC-HOME observer rating survey) as the Moderator.

	B	β	<i>t</i>	<i>p</i>	R²	Adj R²	Δ R²	<i>F</i>Inc	<i>df</i>	<i>p</i>Inc
Step 1: Dummy Coded Control Variable – Frequency of Father Contact					.07	.05	.07	3.41	2,97	.04*
Medium Father Contact	-.13	-.20	-1.73	.09						
High Father Contact	-.19	-.30	-2.58	.01*						
Step 2: Dummy Coded Independent Variable – Mother's Satisfaction with Father's Parenting					.07	.03	.001	.03	2,95	.97
Medium Father's Parenting	.02	.03	.24	.81						
High Father's Parenting	-.03	-.04	.21	.84						
Step 3: Moderator Variable – Maternal Parenting (EC-HOME)					.12	.07	.05	5.74	1,94	.02*
Maternal Parenting (EC-HOME)	-.001	-.23	-2.40	.02*						
Step 4: Interaction Terms: Dummy Coded Independent Variable X Moderator – Father's Parenting X Maternal Parenting (EC-HOME)					.22	.16	.10	5.56	2,92	.005**
Medium Father's Parenting X Maternal Parenting (EC-HOME)	.000	.42	2.54	.01*						
High Father's Parenting X Maternal Parenting (EC-HOME)	.003	.76	2.52	.01*						

Note. All statistics reflect estimates for variables at step of entry.

* $p < .05$, ** $p < .01$

5. DISCUSSION

5.1. Summary of Findings

The ecological and risk and resilience perspectives were the theoretical bases of this study. The purpose was to examine whether, or to what extent, the predictor variables of mother's satisfaction with father's parenting, mother-reported interparental conflict about the child, maternal depressive symptoms, and more optimal maternal parenting would be associated with the outcome variable, mother-reported child behavior problems, in urban African American, low-income, single-mother families (hypotheses 1, 2_a and 2_b). Reported frequency of father contact was controlled in order to examine the relation of mother's perceptions of interparental relationship quality and child behavior independent of her report about the amount of contact. In addition, expectations were that fewer maternal depressive symptoms and more adequate parenting would each buffer the negative effect of poorer perceived interparental relationship quality (i.e., lower maternal satisfaction with fathers' parenting and higher interparental conflict) on child behavior problems, after controlling for frequency of father contact (hypotheses 3_a and 3_b). In sum, hypotheses 1, 3_a, and 3_b were not supported, but hypotheses 2_a and 2_b were supported and controlling for frequency of father contact made no notable difference in these results.

Bronfenbrenner (1979, 1986) posited that children are influenced by parental characteristics and behavior (for example in this study, father contact, interparental relationship quality, maternal depressive symptoms, and maternal parenting). Bronfenbrenner and Ceci (1994) found that developmentally facilitative maternal care led to fewer behavior problems by age four, particularly for children in families with severe socioeconomic disadvantages, as was true of

children in this study. Bronfenbrenner and Ceci found that conditions that negatively affected low-income children's well-being included unstable relationships, interparental conflict, living with a single mother, and minimal parental education, conditions included in the current study.

This study specifically investigated the microsystem and mesosystem of children in a sample of African American single, mother-headed families. The study explored the mother and child microsystem, the maternal perceptions of the father and child microsystem (i.e., father contact), and the mesosystem that included the mother-father relationship and its potential influence on mother's perception of the child's behavior. Based on literature on the risk and resilience perspective, the families in this sample had risk factors widely acknowledged to undermine child well-being, including low-income and single mother as head of household. Both factors are often linked with inconsistent father-child relations, poor interparental relationship quality, maternal depressive symptoms, and inadequate parenting (Fraser, 2004; Jackson, 1999; Jackson & Scheines, 2005; McLoyd, 1990; Smith & Carlson, 1997). McLoyd (1990) developed a theoretical model of family processes grounded in an ecological perspective to study low-income African American families, which influenced the model in this study. Jackson (1999) used the risk and resilience perspective to examine father involvement (including interparental relationship quality) on maternal depressive symptoms and child outcomes in a similar sample of nonmarital, low-income, Black families.

The current study found that neither mothers' satisfaction with fathers' parenting nor maternal perceptions of interparental conflict were associated with their report of child behavior problems. These unexpected findings contradicted the well-established association between poor interparental relationship quality and child behavior problems (Davies et al., 2006). However,

this literature has predominately investigated child outcomes in White middle-class, married families (Davies et al., 2002; McLoyd et al., 2001, Nievar & Luster, 2006).

Three studies with the most similar samples to the current study reported conflicting findings. Using variables comparable to those of the current study, Jackson (1999) found that employed mothers' higher satisfaction level with the amount of time fathers spent with their child was associated with fewer behavior problems in preschool children. Yet, for both employed and non-employed mothers, no other mother-father relationship variables showed a significant association with preschool child behavior problems. Jackson and Scheines (2005) reported that interparental relationship quality predicted child behavior problems, but indirectly through maternal depressive symptoms or through maternal parenting adequacy. Shaw and his colleagues (1997) reported that exposure to parental conflict about child-rearing issues predicted internalizing problems in preschool age children; as in the present study, gender was not a significant factor. Using the NLSY data set, Nievar and Luster (2006) found that interparental conflict was highly correlated with behavior problems for Black children, but that link was statistically mediated completely through maternal depression. They found that in a comparison of Black and White families, mother-father conflict predicted middle childhood behavior problems in White families, but not in Black families. In the Jackson (and Jackson and Scheines) studies, the sample included only African American, low-income, single-mother families. In the Nievar and Luster study, 39% of the Black couples were married and all were partnered. However, the partnered group indicated that only 59% of Black fathers and 61% of White fathers actually resided with the family. The inconclusive findings from these few studies provide no clear guidance regarding the reasons that interparental relationship quality was not associated

with child behavior problems in low-income, African American, single-mother families in the present study.

One possible explanation for the findings is that the measures were too limited. In all these studies, the measures used to assess interparental relationship quality had ten items or less, which could be too few to adequately assess the constructs involved. Furthermore, the scales in these studies all relied on maternal self-report possibly creating unacceptable shared-method variance. This current study used one item to assess interparental conflict and only a 3-item survey to assess maternal satisfaction with father's parenting. A better choice in a similar study could be the *Child–Rearing Disagreement Scale* (Jourile et al., 1991) that includes 21 items and requires completion by both parents. Ideally, more advanced and complex methodology should be chosen.

Other studies have used multiple measures and multi-factor scales that include (albeit rarely) father reports and trained observer assessments to more fully evaluate interparental relations and their association and impact on children (Davies et al., 2002; Gottman & Notarius, 2000; Katz & Gottman, 1993). Using multiple measurement strategies, for example, Katz and Gottman (1993) reported that a ‘Mutually Hostile’ pattern of couple interaction predicted externalizing behavior problems in young children, whereas “Husband Angry and Withdrawn” pattern predicted internalizing problems. These findings suggested that child behavior outcomes differ depending upon the types of interparental relational patterns that are displayed. The measures available for this study could not capture such nuances.

The inadequacy of measurement tools to identify the extent and quality of father contact with mother and with the child also could have compromised study results. The inconsistency and complexity of relationships (i.e., mother-father and parent-child), including frequency of

contact from none to daily contact that could vary from time to time, complicates any assessment of these relationships and their association with child well-being (Carlson et al., 2004; Sano, 2004). Furthermore, contact does not equate to quality of time spent. The mothers' satisfaction with father involvement could differ considerably depending upon whether the father was a positive or negative influence in their lives (Jaffe, Moffett, Caspi & Taylor, 2003). However, this author posits that fathers may be more involved than is commonly presumed, even after the romantic relationship ends, given that mother-reported contact data was high in this study, and father-reported contact data may have been higher. Baker (2007) reported that father's satisfaction with the relationship with the mother of his children did not influence father-child contact. Based on bivariate correlations, greater frequency of father contact was associated with both parents working for pay and having a child support agreement, and mothers having both a higher income and a lower incidence of cash welfare receipt. These findings suggest that more stable parents were more likely to maintain contact, which fits with the literature (McLanahan, et al., 2006).

In this study, mother's satisfaction with father's parenting was very much a function of father contact (i.e., greater contact correlated with greater satisfaction); more frequent father contact had a positive main effect on internalizing child behavior problems. These findings are interesting because the literature has been mixed about the association between father involvement and child outcomes in this population (Amato & Gilbreth, 1999). As in the present study, Amato and Gilbreth's meta-analysis about non-resident fathers reported that greater father-child contact was associated with fewer internalizing behavior problems, but not externalizing problems. Coupled with the literature and the current study's findings about interparental relations and father contact (Carlson et al., 2004; Davies et al., 2002; McLoyd et al.

2001), anecdotal conversations suggest that improved, qualitative measurement strategies are needed to better understand parental relationships and their association with child functioning in low-income, African American, nonmarital families.

McLoyd and her colleagues (2001), Nievar and Luster (2006), and Pachter and colleagues (2006) argued that researchers need to consider the role of ecological contexts when interpreting findings related to Black families. Therefore, if the findings in the present study and that of Nievar and Luster that interparental relationship quality is not associated with child behavior problems in Black families are true, some factors within the environment may serve as protective factors. This author posits that the primacy of the mother-child bond and the protective effect of social supports may be such factors. The following suppositions are based on observations and conversations with mothers during intervention meetings, interview sessions, and phone calls throughout Jackson's current study, in which, the author was the project coordinator. First, in low-income (particularly single and unstable) families, the mother-child bond appears to be paramount (Edin & Kefales, 2005). For mothers, romantic attachments - and even family members - may come and go, but children stay. Children can provide unconditional love (especially very young children). Many children in this population become accustomed to fathers being transient or intermittent forces in their lives, but mothers are there day-to-day (Edin & Kefales, 2005). Therefore, as measured in this study, interparental conflict may not be threatening, thus, less of a risk because conflicts conclude with mother still at home. Whether father stays or goes occurs regardless of conflict.

Davies and Cummings (1998) posited in their emotional security theory that children can be negatively affected by parental conflict because they fear that the conflict will lead to the loss of attachment of one or both parents. Their study and subsequent research continues to expand upon

this theory (Davies et al., 2002). Davies and Cummings found that interparental conflict predicted internalizing and/or externalizing behavior problems when children perceived the interaction between parents as threatening to family cohesion. The children in the present study may not have perceived disagreements or arguments – even those about them – as posing such a risk. In addition, mother’s satisfaction with father has not been shown to have as robust an association with child outcomes as interparental conflict (Buehler, Anthony, Krishnamahar, Stone, Gerard, & Pemberton, 1997; Katz & Gottman, 1993; Jones, Forehand, Dorsey, Foster, & Brody, 2005).

To illustrate the mother-child bond in Black, low-income families (at least in the present sample), a number of mothers in the present study shared their bed with the focal child – not with the men in their lives. We conducted in-home child assessments in the child’s bedroom, whenever possible, with the mothers’ permission. However, in some homes, the focal child had no bedroom or bed of his or her own.⁷ Some mothers said they shared their bed with their children or youngest child and had sexual relations with men in other places or when children were not home. During an intervention meeting, one mother reported that she slept in the same bed as her mother until she was 16 years old. During her entire childhood, her parents were married, but her father slept in another room.

A second explanation this author offers as accounting for the lack of association between interparental relationship quality and child behavior problems could be the protective effect of social supports (V. McLoyd, personal communication, February 26, 2007; Nievar & Luster, 2006). Conflicts with the father could have occurred primarily while children were at the home of a family member or friend or while parents were away from the child. McLoyd and her

⁷ No record was kept of these sleeping arrangements. We noticed this phenomenon as interviews progressed, so the observations are not empirically researched.

colleagues (2001) reported that kinship and social networks within urban Black-concentrated areas can provide social support that lessens the risk factors, including interparental conflict, that often occur in socioeconomically deprived neighborhoods. Dilworth-Anderson and Marshall (1996) and Stack (1974) asserted that African American families tend to have family relationships with loose boundaries across extended family relationships or fictive kinship relations that are described as family, but are not necessarily blood relatives. These relationships serve as coping strategies, particularly during stressful situations. The pressure of parenting can be relieved, when shared by various family members, regardless of how family is defined. These fluid boundaries can allow mothers to send their children to others in their kinship circle for supervision. Family members may provide a safe haven and an added sense of security for children, which can minimize their exposure to and the effect of parental problems (McLoyd et al., 2001; Stack, 1974). In this study, many mothers reported that their kin – particularly the child's grandmother – took care of their children when they were occupied. Grandmothers (i.e., mothers of the mother participants) maintained the most consistent connection with the family. As evidence, if I had trouble contacting mothers during the study, a call to the grandmother often prompted a quick return call from the participating mother. Also, according to the mothers, the father's female relatives (usually mothers and sisters) often took some responsibility for his children – providing material goods or caregiving - even if the mother-father romantic relationship had ceased.

On the other hand, Patterson's (1991) report that Black families have few social supports appeared to be the case with many mothers in this study. Based on anecdotal evidence, some seemed lonely, reported few confidants, and some had turbulent (sometimes short-lived) friendships due to feuds about, most often, men. Small social support networks may increase the

importance of the mother-child bond. These thoughts are admittedly speculative and require further exploration, which would be best explored through qualitative research.

Consistent with extensive literature (Beck, 1999; Downey & Coyne, 1990; McLoyd, 1990; Jackson, 2003; McGroder, 2000; Nievar & Luster, 2006), Hypotheses 2_a and 2_b were supported. Fewer self-reported maternal depressive symptoms as well as greater maternal parenting adequacy, as rated by observers, both were associated with fewer child behavior problems. However, upon further exploration, these associations were significant only for internalizing behavior problems – not externalizing problems. Shaw and his associates (1997) found that risk factors such as developmentally non-supportive maternal parenting during toddler hood predicted more internalizing than externalizing problems in low-income, preschool-age children (40% African American). In addition, studies by Nievar and Luster (2006) and Shaw and his associates (1997) found that, similar to the present study, the association between maternal parenting or maternal depressive symptoms and child behavior problems was not related to gender.

Despite living with low-income and as single mothers, which are well-established risk factors, the mothers' scores on CES-D (as a group) did not indicate that they were at risk for depression. Furthermore, most scores on the EC-HOME observer rater survey suggested that their parenting was not putting their children at undo risk. These findings indicated that coping skills or social support may have served as protective factors enabling these single mothers in urban poverty to function adequately enough to care for their children. One explanation could be that these mothers found the strength to deal with their circumstances for the sake of their children. Edin and Kefalas (2005) reported that low-income mothers strongly valued motherhood, which they reported had the effect of changing their lives and making them more

responsible. Mothers in the present study voiced this sentiment as well. To residents surviving the multiple problems found in chaotic and often dangerous, poor neighborhoods “being there” defines a good mother. The term “being there” is a commonly used phrase that refers to standing by one’s children whatever happens. Many poor parents (both mothers and fathers) believe that they cannot shield or rescue their children from neighborhood influences, but “being there” and making an effort is important (Roy, 1999; Summers, Raikes, Butler, Spicer, Pan, Shaw et al., 1999).

Hypotheses 3_a and 3_b proposing that fewer depressive symptoms and more adequate parenting in the home environment would buffer the negative effect of poorer interparental relationship quality (i.e., lower maternal satisfaction with fathers’ parenting and higher interparental conflict) on child behavior problems were not supported. However, exploratory analyses found that mothers’ parenting was least correlated with internalizing child behavior problems in families when mothers were most satisfied with fathers’ parenting. Possibly fathers’ parenting served as a protective factor that moderated the risk of negative effects of mothers’ parenting (Amato & Gilbreath, 1999). Mezulis, Hyde, and Clark (2004) found that the presence of fathers who were nurturing and involved in child-raising statistically moderated the association between maternal depression and children’s internalizing (but not externalizing) behavior problems.

Surprisingly, none of the background variables, child gender, parents’ education or employment, income level, welfare receipt, or child support agreement was associated with total child behavior problems. However, welfare receipt was modestly correlated with internalizing behavior problems. As Jackson (1999) found in her similar study in New York, mothers’ education was high. In the present study, 45% had received education beyond high school and

20% had an Associate's degree or 14 years of schooling. Findings regarding child gender and behavior have been mixed (Johnson, 1996; Nievar & Luster, 2006; Shaw et al., 1997; Shaw & Vondra, 1995). The other factors may not have been associated with child outcomes because the range of responses was narrow. The participants all lived with low-income (regardless of the source of that income).

In summary, this study did not find an association between interparental relationship quality and child behavior problems. It also did not find buffering effects of fewer maternal-reported depressive symptoms and more adequate parenting on the association between poor interparental relationship quality and child behavior problems. Controlling for frequency of father contact made no notable difference. The study added to existing knowledge about the associations between maternal parenting and maternal depressive symptoms and child behavior problems. Frequency of father contact was not found to be a significant factor in any of the main study regression models, however contact was associated with internalizing, but not externalizing child problems. Children with greater father contact showed fewer internalizing behavior problems.

5.2. Study Limitations

There are six notable limitations to this study. The first limitation is reliance on cross-sectional, associational data to test a longitudinal causal model (Gollob & Reichardt, 1987). Second is the issue of reporter bias; except for the EC-HOME observer rater survey, the study measures all relied on maternal self-report. To what degree these data coincided with actual behaviors could not be determined. Mothers could have downplayed or overplayed their own pathology and problems as well as their children's problems. Amato and Gilbreth (1999) cautioned that relying on mother to report on father's behavior and children's behavior will inflate the shared method variance. Mothers may over-report problems and under-report father's positive involvement. In a

study of predominately minority, low-income families with children ages 2- to 4-years old, Coley and Morris (2001) found that mothers and fathers self-reports were similar, but mothers tended to report lower father involvement than fathers reported. Discrepancies were more pronounced under the following conditions: conflicted parental relations, nonresidential as well as older fathers, higher maternal education, and maternal employment. Because this study has a comparable sample, it is reasonable to believe that some mothers under-reported father involvement particularly considering their reported dissatisfaction and level of conflict with the fathers. Despite this issue, the results in this study did not appear to indicate that inflated shared variance was a major problem.

The third limitation involves the measures of interparental relationship quality and father-child relations. A single item assessed interparental conflict related to issues about the child and a single item assessed frequency of father contact. Only a three-item scale evaluated maternal satisfaction with general aspects of father's parenting. The fourth limitation, the small sample size ($N = 100$), reduced statistical power and thus restricted conclusions that could be drawn from the results (Aguinis & Stone-Romero, 1997; Whisman & McClelland, 2005). Fifth, nearly all effect sizes were slight or modest which further limited inference drawing.

Finally, another caveat is directionality (Glass & Hopkins, 1995). On one hand, more adequate parenting and more positive interparental relationship quality may be associated negatively with children's problem behaviors because they influence child adjustment (Amato & Gilbreth, 1999; Davies et al., 2002). Conversely, difficult children can spark parental disagreements and influence parenting practices (McLoyd, 1990; Simons et al., 1994). Similarly, Hammen, Burge, and Stansbury (1990) found a reciprocal bidirectional relationship between child behavior and maternal psychological functioning based on a longitudinal study of relations

between depressed mothers and their children. The marital family literature has shown that a key factor in fathers' involvement post-divorce is the child's behavior. Fathers of children with behavior problems are less likely to sustain the relationship (Cowan & Cowan, 2002). Countering this concern was that the eligibility criteria required that participant child behavior was within a normal range, as perceived by both mothers and interviewers.

5.3. Policy and Practice Implications

According to the ecological perspective, environmental factors influence people's ability to function; and poverty, with its many stressors, can undermine mental health and parenting and subsequently increase child behavior problems (Bronfenbrenner & Ceci, 1994; Eamon, 2001; McLoyd, 1990). Although this study's findings indicated that mothers and their children, as a group, functioned within a normal range; with this population, maternal depressive symptoms and parenting in the home environment continue to be important factors for child well-being (Downey & Coyne, 1990; Jackson & Scheines, 2005). Welfare policies and programming need to reduce risk factors such as inadequate benefits and increase protective factors such as job training, education, and quality child care to help families strive toward economic stability.

In low-income neighborhoods, the multiple stressors of violence, instability, poor services, and inadequate schools can bring about depressive symptoms and diminished parenting that must be addressed for the well-being of families (Conger et al., 1992; Chase-Lansdale et al., 1997; Fraser, 2004). Children of mothers with depressive symptoms often present similar internalizing symptoms (Weissman et al., 1984). The finding that the children in this study showed primarily internalizing reactions to stressors may suggest that mental health issues such as depression and anxiety could be present or emerging. In this population, if young children present more internalizing than externalizing problems in response to these stressors, the implication is that

parents, teachers, and social workers need to be made aware of this possibility. Then, they can look for and address these more subtle yet equally disabling behavior patterns. Ideally, regular school-based mental health screening of children (with parental permission) by school social workers would be a worthwhile investment to prevent long-term problems. This issue is important because untreated child mental health problems are risk factors for problems that can continue into adulthood (Walker, 2003).

The fact that interparental relationship quality was not associated with child behavior problems (regardless of controlling for father contact) in the sample may indicate that researchers and policy makers should be particularly attuned to uncovering environmental risk and resilience factors that influence this population. However, the findings are too inconclusive for direction. Because these findings contradict the literature for White families, further investigation is warranted. This is important because policy makers have established programs and sizable funding to strengthen families and encourage fathers to be involved with their children – if not as a married partner – as a coparent. Yet, little research about low-income, single mother-headed African American families and coparenting with the non-resident father is available to guide these efforts.

The Temporary Assistance for Needy Families (TANF) Program, created by the 1996 Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA), includes provisions and state block grants for extensive interventions to lower nonmarital births, strengthen parental relationships, and prepare children for a future that does not include welfare receipt [Administration for Children & Families (ACF) Press office, 2006, February 8]. These programs have created incentives for parents to marry or at least effectively coparent with

consequent funding for public health professionals, social workers, educators, and public and private organizations to assist in this effort (McLanahan et al., 2005).

Since TANF originally was passed, two major social welfare reform initiatives were added. In 2001, the Clinton administration established the Responsible Fatherhood Initiative to encourage father involvement and financial child support (New Responsible Fatherhood Initiative, 2000, January 26). In 2002, the Bush administration enacted the African American Healthy Marriage Initiative (AAHMI), which is a component of the Healthy Marriage Initiative and administered by the ACF. The AAHMI promotes marriage and encourages cooperative parenting in unmarried as well as in married couples, and works cooperatively with the Responsible Fatherhood Initiative (Dawson et al., 2005). More than thirty states have marriage education programs; some states require marriage preparation classes to graduate from high school. The various programs that have proliferated in every state have been criticized as being ineffective (Nock, 2005). In fact, some findings indicate that fewer rather than more marriages have resulted from these efforts (Bitler et al., 2004). A recent preliminary evaluation of intervention programs that provide skills training to encourage responsible coparenting for unwed parents found that parents reported that they were interested in marriage education programs to assist them in forming and maintaining a healthy marriage (HHS News, 2006). Although attendance and program satisfaction information showed a positive response, the assessment included no outcome data that link program participation to actual behavior change. These data will be available in a future report.

In 2006, TANF reauthorization, which is part of the Deficit Reduction Act of 2005, will provide \$150 million per year for five years to fund parenting, communication, and conflict resolution skills programs, among other efforts. As much as \$50 million of this amount per year

can be used for interventions to promote responsible fatherhood (ACF Press office, 2006, February 8). Based on the findings in this study, considerable research needs to be conducted to uncover the mechanisms, if they exist, that associate interparental relationship quality to child outcomes in order to improve the quality of intervention programs and policies that are predominantly aimed at poor African American families. Programs that are effective with White families may not work for African American families due to environmental factors not yet known or adequately taken into account.

In *African American Family Life*, Bryant and Wickrama (2005) write about current family strengthening and marriage and policies and practice efforts,

Why waste money on more broad-based policies, such as those aimed at increasing the number of married couples? Such increases may be only temporary, because other factors (e.g., community context) are working against the success of those relationships. Instead of stepping *outside* the box, as we are so often challenged to do in developing solutions to social problems, we propose that policy makers step *inside* the box...Only by immersing ourselves in the social context of a particular group will we be able to adequately identify factors that have the greatest impact on their marital happiness... Let's acknowledge our differences and create policies sensitive to those differences... Let's determine why this disparity [in marital dissolution between White and Black couples] exists and create group-specific policies aimed at correcting a problem that has dire emotional and financial consequences (p130).

5.4. Future Research

As noted earlier, future research about interparental relationship quality in low-income single mother-headed families with preschool age children should ideally be longitudinal and use more sensitive measurement tools that interview mothers and fathers and involve trained observers. Including fathers in these studies is particularly important because studies have almost exclusively used mother-reports (McLanahan, Brooks-Gunn, Tienda, & Garfinkel, 2006). For this population, the micro-level mother-child interactions have been explored (Jackson, 1999),

but the father-child and mother-father interactions, along with the meso-level relations between mother-child vs. father-child, require further understanding.

Based on findings from this present study, this author suggests conducting a mixed methods longitudinal study to investigate the effect of interparental conflict on young child behavior in urban African American, single mother-headed families and the possible buffering influence of social support (e.g., extended family, fictive kinship, friends, neighbors, church participation). Using McLoyd's family stress model (1990), this study would include background variables, such as for example, perceived economic hardship, parents' education and employment, welfare receipt, and child support.

Using an NLSY data set to conduct a study based on McLoyd's model, Nievar and Luster (2006) found that parental discord significantly predicted greater behavior problems in children of White families, but not in children of Black families. McLoyd noted in her review (2000) and editorial (2006) that children of color may be less affected by interparental conflict due to protective extended family relationships, which Nievar and Luster also suggested in their discussion section. In addition to grounding the research in the ecological perspective and risk and resilience framework, it would be interesting to consider the emotional security theory based on Davies and his colleagues' abundant literature (most notably beginning in 2002).

Because the present study could not address environmental and ethnic factors related to contextual family communication styles and relationships, future studies need to consider these issues. McLoyd, Harper & Copeland (2001) reported that Black and White couples tend to differ in the content of their disagreements and the style in which they handle conflict. In this proposed study, more involved measures of relationship interactions would be utilized (see review by Gottman, 2000) to investigate relational and conflict styles - both protective and risk producing -

on children's behavior. McLoyd, Harper and Copeland (2001) in the chapter "Ethnic minority status, interparental conflict, and child adjustment" that "Our understanding of issues raised in this chapter would benefit from a greater number of studies developed and conducted with attention to the need for methodological consistency. Central to such an approach would be consideration of the unique histories, environments, and cultural orientations of minority and majority families" (p120).

Another potential study could be a mixed methods longitudinal study that investigates the effect of father loss or infrequent contact due to separation, incarceration, or death on child behavior as assessed by teachers and mothers. Suggested variables are child gender, maternal parenting, social support, and an intervention (e.g., school social worker counseling of students) as moderators. Background variables could include material hardship, mother's education and employment. Theoretical frameworks can be based on risk and resilience perspective and attachment theory.

The Fragile Families and Well-Being Study, a longitudinal study of low-income family issues, provides publicly available data sets (McLanahan et al., 2006). The Fragile Families study is an extensive effort to investigate families with multiple risk factors common to people living with low-income, including mothers' mental health, extent of father involvement, union formation, types of family structure, mother-father relations, and child behavior problems along with environment variables such as income, welfare receipt, child support, and parents' employment status and educational level (McLanahan et al., 2006). Goals include gaining greater understanding of interparental relationship quality for nonmarital parents and determining long term outcomes for parents and children in order to identify policies and interventions to strengthen family ties and improve children's well-being. The next wave in this on-going study,

which will be available in Fall 2007, will provide data about early school age children (personal communication with Jean Nabb, January 9, 2007). Using these data sets, the theoretical model used in this present study can be replicated using comparable measures with the added advantages of having longitudinal data with larger samples that allow comparisons between Black and White families.

5.5. Conclusion

Grounded in the ecological and risk and resilience theoretical perspectives, this study contributes in a limited way to the understanding of relationships among mother, father, and children in urban, low-income African American single, mother-headed families. As anticipated, mothers' depressive symptoms and parenting in the home environment were associated with child behavior problems – primarily internalizing behavior problems. Not anticipated was that interparental relationship quality was not associated with child behavior problems. As a control variable, frequency of father contact did not influence the connections being modeled. However, father contact had a positive main effect on children's internalizing behavior problems. Furthermore, neither lower maternal depressive symptoms nor more adequate parenting in the home environment buffered the association between poor interparental relationship quality (i.e., mother's satisfaction with father's parenting, interparental conflict) and child behavior problems.

These findings justify further investigation of these factors - in this population particularly - considering the extensive effort given by policy makers and social service agencies to encourage and strengthen poor families, a large percentage of which are African American. The strategies used to strengthen White families may be ineffective with African American families due to environmental factors that may include economic, social and political forces as well as more

fluid adult relationships and intergenerational social support structures. If social supports serve as protective influences for poor Black families, welfare and social work efforts need to encourage and bolster these family and fictive kinship supports.

APPENDIX A

UNIVERSITY OF PITTSBURGH INSTITUTIONAL REVIEW BOARD APPROVAL



University of Pittsburgh Institutional Review Board

Exempt and Expedited Reviews

University of Pittsburgh IRB# 00006730
University of Pittsburgh Medical Center IRB# 00006735
Children's Hospital of Pittsburgh IRB# 00006736

3500 Fifth Avenue
Suite 1600
Pittsburgh, PA 15213
Phone: 412.383.1480
Fax: 412.383.1508

TO: Solveig Peters

FROM: Christopher M. Ryan, PhD, Vice Chair *Chris*

DATE: November 2, 2006

PROTOCOL: The Association Between and Among Interparental Relationship Quality, Maternal Depressive Symptoms and Parenting in the Home Environment on Pre-School Child Behavior in African American, Low-Income, Single Mother Families

IRB Number: 0610014

The above-referenced protocol has been reviewed by the University of Pittsburgh Institutional Review Board. Based on the information provided in the IRB protocol, this project meets all the necessary criteria for an exemption, and is hereby designated as "exempt" under section 45 CFR 46.104(b)(4).

- If any modifications are made to this project, please submit an "exempt modification" form to the IRB.
- Please advise the IRB when your project has been completed so that it may be officially terminated in the IRB database.
- This research study may be audited by the University of Pittsburgh Research Conduct and Compliance Office.

Approval Date: November 2, 2006

CR:kh

APPENDIX B

PARTICIPANT CONSENT FORM



University of Pittsburgh

School of Social Work

2117 Cathedral of Learning
Pittsburgh, PA 15260
412-624-6300
Fax: 412-624-6323

University of Pittsburgh
Institutional Review Board
Approval Date: February 18, 2004
Renewal Date: February 17, 2005
IRB Number: 0304010

CONSENT TO ACT AS A PARTICIPANT IN A RESEARCH STUDY

TITLE: Single Black Mothers: Work, Mental Health, Parenting

PRINCIPAL INVESTIGATOR:

Aurora P. Jackson, Ph.D.
Associate Professor of Social Work
2217 C Cathedral of Learning
Pittsburgh, PA 15260
(412) 624-6643

CO-INVESTIGATOR

Carol M. Anderson, Ph.D.
Professor of Psychiatry and Social Work
WPIC – Room 441E
Pittsburgh, PA 15213
(412) 624-0804

SOURCE OF SUPPORT:

National Institute of Mental Health

Why is this research being done?

You have been selected for an ongoing study of single mothers and their preschool children. The study will help us to learn how single mothers handle the demands in their lives, including employment, if working, and parenting. It also will help us learn how young children of working and nonworking mothers get along in early elementary school. The study will include an interview about you and your child when your child is 3-4 years old and, again, 24 months later when your child is 5-6 years old. You also may be asked to participate in a more intensive study that will help us to better understand what children need to prepare them for school. After the time 2 interview with you, we will ask your permission to send a mailed questionnaire to your child's teacher about his/her performance in school. The information will be used to inform programs and policies about employment, education, and supports for young parents like you.

Who is being asked to take part in this research study?

This study will include 120 employed and nonemployed mothers and their 3-4-year-old child (at time 1) who are current and former recipients of financial or supportive benefits at the Allegheny County Assistance Office. In addition, mothers asked to take part in this study must be single and black.

What procedures will be performed for research purposes?

If you decide to participate in this research study, you will be interviewed in your home (at time 1) and, again, 24 months later (at time 2). These interviews will take about 1½ to 2 hours to complete. At each interview, a self-report questionnaire will be presented on a laptop computer. At time 1, your preschooler also will participate in a set of activities about how children solve problems. These activities will take about 20 minutes and should be fun. At time 2, when your child is 5-6 years old, you will be asked to give us permission to mail a questionnaire to his/her teacher about his/her adjustment in school.

You also may be asked to participate in a more intensive study that will involve an ongoing group intervention about young children and their parents that will meet once a week for 3 months, once a month for 3 additional months, and for a final session in the 9th month of the program. We will provide childcare on site during the group meetings and help you with transportation to and from the sessions, which will last about 1½ to 2 hours. If you are not randomly selected (like a lottery) into the ongoing group intervention, you will get a phone call every six months to see if anything has changed between the time 1 and time 2 interviews.

If we lose contact with you between the first interview and the follow-up occasions, we may need to ask the Allegheny Assistance Office for your latest known address.

What are the possible risks, side effects, and discomforts of this research study?

Risks are minimal. However, a potential risk of participation in any kind of study in which information of a personal nature is obtained is that such information could potentially be used for purposes other than those agreed to. To eliminate these risks, all records related to your involvement and your child's involvement in this research study will be stored in a locked file cabinet. Your identity on these records will be indicated by a case number rather than your name, and the information linking these case numbers with your identity will be kept separate from the research records. Any information about you and your child obtained from this research will be kept as confidential (private) as possible. You will not be identified by name in any publications of the research results. You should be aware, however, that if the researchers learn that you are in serious danger of harm or if we observe that your child is in similar danger, we may need to inform the appropriate agencies as required by Pennsylvania law.

What are possible benefits from taking part in this study?

You will likely receive no direct benefits from taking part in this research study. However, the information you provide will add to our understanding of how single black mothers with young children and low income who cope well with work and family life are different from those who cope less well. This information can inform programs and policies that might benefit many.

Will I be paid if I take part in this research study?

You will be paid \$225 if you complete both interviews. If, for whatever reason, you complete part but not all of the study (that is, if you complete the first, but not the second interview), the terms of the payment will be as follows: 1) \$75 for participating in the initial interview; and 2) an additional \$150 for completing the second interview.

In addition, if you are asked to participate in the more intensive group intervention, your transportation to meetings will be paid by the study.

Who will have access to identifiable information related to my participation in this research study?

In addition to the investigators listed on the first page of this authorization (consent) form and their research staff, the following individuals will or may have access to identifiable information related to your participation in this research study:

Authorized representatives of the University of Pittsburgh Conduct and Compliance Office may review your identifiable research information for the purpose of monitoring the appropriate conduct of this research study.

In unusual cases, the investigators may be required to release identifiable information related to your participation in this research study in response to an order from a court of law. If the investigators learn that you or someone with whom you are involved is in serious danger of potential harm, they will need to inform, as required by Pennsylvania law, the appropriate agencies.

For how long will the investigators be permitted to use and disclose identifiable information related to my participation in this research study?

The investigators may continue to use and disclose, for the purposes described above, identifiable information related to your participation in this research study for a minimum of 5 years and for as long (indefinite) as it may take to complete this research study.

Is my participation in this research study voluntary?

Your participation in this research study, to include the use and disclosure of your identifiable information for the purposes described above, is completely voluntary. Whether or not you provide your consent for participation in this research study will have no effect on your current or future relationship with the Allegheny County Assistance Office or the University of Pittsburgh.

May I withdraw, at a future date, my consent for participation in this research study?

You may withdraw, at any time, your consent for participation in this research study. You may refuse to give permission for your child's teacher to be contacted at time 2. To formally withdraw your consent for participation in this research study, you should provide a written and dated notice of this decision to the principal investigator of this research study at the address listed on the first page of this form.

Your decision to withdraw your consent for participation in this research study will have no effect on your current or future relationship with the Allegheny County Assistance Office or the University of Pittsburgh.

VOLUNTARY CONSENT

All of the above has been explained to me and all of my current questions have been answered. I understand that I am encouraged to ask questions about any aspect of this research study during the course of this study, and such future questions will be answered by the researchers listed on the first page of this form.

Any questions which I have about my rights as a research participant will be answered by the Human Subject Protection Advocate of the IRB Office, University of Pittsburgh (412-578-8570).

By signing this form, I agree to participate in this research study. A copy of this consent form will be given to me.

Participant's Signature

Date

CERTIFICATION of INFORMED CONSENT

I certify that I have explained the nature and purpose of this research study to the above-named individual(s), and I have discussed the potential benefits and possible risks of study participation. Any questions the individual(s) have about this study have been answered, and we will always be available to address future questions as they arise.

Printed Name of Person Obtaining Consent

Role in Research Study

Signature of Person Obtaining Consent

Date

APPENDIX C
INSTRUMENTS AND QUESTIONS USED FOR THIS STUDY

“About Your Child” - *Behavior Problem Index* (BPI)

Mother’s Satisfaction with Father’s Parenting

Mother’s Perception of Interparental Conflict About the Child

Frequency of Father Contact

“About Your Feelings” - *Center for Epidemiological Studies Depression* scale (CES-D)

EC-HOME Observer Rating Survey (Maternal Parenting)

ABOUT YOUR CHILD

Please indicate by circling the number to the right of each statement the extent to which each of the following items describes your child's behavior **DURING THE LAST THREE MONTHS**.

During the last three				Not True		Sometimes True		Often	
True	months, he/she . . .	1		2		3			
a.	Has sudden changes in mood or feeling.....	1	2	3	n.	Feels worthless or inferior.....	1	2	3
b.	Feels or complains that no one loves him or her.	1	2	3	o.	Is not liked by other children.....	1	2	3
c.	Is rather high strung, tense, and nervous.....	1	2	3	p.	Has a lot of difficulty getting his/her mind off certain thoughts (has obsessions).....	1	2	3
d.	Cheats or lies.....	1	2	3	q.	Is restless or over-active, cannot sit still.....	1	2	3
e.	Is too fearful or anxious.....	1	2	3	r.	Is stubborn, sullen or irritable	1	2	3
f.	Argues too much.....	1	2	3	s.	Has a very strong temper and loses it easily.....	1	2	3
g.	Has difficulty concentrating, cannot pay attention for long.....	1	2	3	t.	Is unhappy, sad, or depressed.....	1	2	3
h.	Is easily confused, seems to be in a fog.....	1	2	3	u.	Is withdrawn, does not get involved with others.....	1	2	3
i.	Bullies or is cruel or mean to others.....	1	2	3	v.	Breaks things on purpose or deliberately destroys his/her own or others' things.....	1	2	3
j.	Is disobedient at home...	1	2	3	w.	Clings to adults.....	1	2	3
k.	Does not seem to feel sorry after he/she misbehaves	1	2	3	x.	Cries too much.....	1	2	3
l.	Has trouble getting along with other children.....	1	2	3	y.	Demands a lot of attention.....	1	2	3
m.	Is impulsive, or acts without thinking.....	1	2	3	z.	Is too dependent on others	1	2	3

INTERPARENTAL RELATIONSHIP QUALITY AND FATHER CONTACT

1) *Mother's Satisfaction with Father's Parenting* scale (3 items)

On a scale from 0 to 5, where 5 is very satisfied and 0 is very dissatisfied, how satisfied are you with:

a) the amount of love and caring your child's father has shown him/her?

Very dissatisfied 0 1 2 3 4 5 Very satisfied

b) the amount of time your child's father spends with him/her?

Very dissatisfied 0 1 2 3 4 5 Very satisfied

c) the amount of money and help he's provided for raising her/him?

Very dissatisfied 0 1 2 3 4 5 Very satisfied

2) *Interparental Conflict About the Child* (1 item)

On a scale from 0 to 5, where 5 is very satisfied and 0 is very dissatisfied, how much conflict do you have with your focal child's father about things having to do with your child?

No Conflict 0 1 2 3 4 5 A Great Deal of Conflict

3) *Frequency of Father Contact* (1 item)

In the past 12 months, about how often has your focal child seen his/her father?

- a) Almost every day
- b) 2-5 times a day
- c) About once a week
- d) 1-3 times per month
- e) 2-11 times in the past 12 months
- f) Once in the past 12 months
- g) 0 times in the past 12 months
- h) Child has never seen father

ABOUT YOUR FEELINGS

Below is a list of ways you might have felt. Please circle the number for each statement which best describes how often you felt or behaved this way DURING THE PAST WEEK.

DURING THE PAST WEEK:	Less than 1 day	1-2 days	3-4 days	5-7 days
a. I was bothered by things that usually don't bother me.....	0	1	2	3
b. I did not feel like eating; my appetite was poor.....	0	1	2	3
c. I felt that I could not shake off the blues even with help from my family and friends.....	0	1	2	3
d. I felt that I was just as good as other people.....	0	1	2	3
e. I had trouble keeping my mind on what I was doing.....	0	1	2	3
f. I felt depressed.....	0	1	2	3
g. I felt that everything I did was an effort.....	0	1	2	3
h. I felt hopeful about the future.....	0	1	2	3
i. I thought my life had been a failure.....	0	1	2	3
j. I felt fearful.....	0	1	2	3
k. My sleep was restless.....	0	1	2	3
l. I was happy.....	0	1	2	3
m. I talked less than usual.....	0	1	2	3
n. I felt lonely.....	0	1	2	3
o. People were unfriendly.....	0	1	2	3
p. I enjoyed life.....	0	1	2	3
q. I had crying spells.....	0	1	2	3
r. I felt sad.....	0	1	2	3
s. I felt that people disliked me.....	0	1	2	3
t. I could not get "going".....	0	1	2	3

HOME OBSERVATION ITEMS

[COMPLETE THIS SECTION AFTER YOU LEAVE THE RESPONDENT'S HOME.]

1. Mother uses correct grammar and pronunciation. To receive credit, the mother must be able to communicate with you. Pronunciation with enough precision that the mother can be understood is more important than precise grammar.
 EASILY UNDERSTOOD 01
 NOT EASILY UNDERSTOOD 00
2. When speaking of or to child, mother's voice conveys positive feeling. Is the mother pleased with her child? Does she enjoy (him/her) and talk about (him/her) in a pleasant, joyful manner rather than talk in a flat tone which communicates, "She's here, so I'll put up with her."
 POSITIVE 01
 NOT POSITIVE 00
3. Building has no potentially dangerous structural or health defects (e.g., plaster coming down from ceiling, stairway with boards missing, rodents, etc.). Use your own good judgment in scoring this item. Some of the most common concerns for this item are: open gas fires in the small homes, and the presence of bleach, cleaning fluids, and other poisons within easy reach of a small child. Overcrowding or clutter in the home would not count as a hazard unless it is to such an extent that it could injure the child.
 NO POTENTIAL DANGER 01
 POTENTIAL DANGER 00
4. Child's outside play environment appears safe and free of hazards. (No outside play area requires an automatic "no.") Once again, you should use good judgment on the scoring. Examples of typical hazards are: broken glass lying around, junk cars abandoned in the yard or along the side of the street, open ditches of a house so close to a street that a child could not safely play in the yard, and boards and nails sticking up out of them.
 SAFE 01
 NOT SAFE 00
5. The interior of the apartment is well lit and not perceptually monotonous. On this item you can take into account the lack of lighting, drawn drapes, lack of pictures or plants, or a seeming lack of effort to dress the home up and make it attractive.
 WELL LIT 01
 NOT WELL LIT 00
6. Neighborhood has trees, grass, birds—is aesthetically pleasing. This, of course, would be a case where junk cars and garbage and other debris are not present.
 PLEASING 01
 NOT PLEASING 00

7. There is at least 100 square feet of living space per person in the house. In making a rough calculation for this item, use as a general rule of thumb a 9 x 12 room as being about the right amount of space for one person.
- SPACE 01
- NO SPACE 00
8. In terms of available floor space, the rooms are not overcrowded with furniture. Is the furniture arranged in a manner so that all of the exits are free and easily accessible? Does the living area allow for freedom of movement and room for the children to play, unless another specified area is designated as a play area?
- NOT OVERCROWDED 01
- OVERCROWDED 00
9. All visible rooms of the house are reasonably clean and minimally cluttered. Use your own judgment.
- CLEAN 01
- NOT CLEAN 00
10. Mother converses with child at least twice during visit (scolding and degrading comments are not counted). This item involves maternal conversation, not just vocalization which can be any sounds or words exchanged with the child. The mother must make an effort to converse with the child and ask questions, to talk about things, or to engage in verbal interchange other than scolding or degrading comments.
- CONVERSES 01
- DID NOT CONVERSE 00
11. Mother answers child's questions or requests verbally. In order to receive credit for this item the mother must make an effort to answer the question for the child. If the mother is unable to answer it at the moment, she may tell the child she doesn't know but that they will look up the answer later. Responses such as "Mother's busy, go away" or "Don't bother me now" do not receive credit.
- ANSWERS 01
- DID NOT ANSWER 00
12. Mother usually responds verbally to child's talking. The key here is that the mother recognizes and acknowledges the child's vocalizations and does not ignore them. For a score of "01" the response may be a word or series of words or sounds such as, "Uh huh," "Um" or "Sure." If the child does not vocalize in any way during the interview, thereby giving no opportunity for response, the score would be "00."
- RESPONDS VERBALLY 01
- DOES NOT RESPOND VERBALLY .. 00

13. Mother spontaneously praises child's qualities or behavior twice during visit. The key word here is "spontaneous," but since most mothers enjoy talking about and are proud of their children, this is not too hard to observe. Frequently a mother will tell you how well her child throws a ball or runs and will brag on how well he dresses himself or can get his own drink.
- SPONTANEOUS PRAISE 01
- NOT SPONTANEOUS PRAISE 00
14. Mother caresses, kisses or cuddles child at least once during visit. This need not be a wild burst of showy affection. Simple signs of concern such as a mother gently tucking the child's shirt in, holding him on her lap, holding a hand, or a gentle pat on the shoulder would all receive an "01."
- AFFECTION 01
- NOT AFFECTIONATE 00
15. Mother sets up situation that allows child to "show off" during visit. Does the mother consciously get the child to sing a song, count, show how a toy works or anything that allows the child to do something to impress the visitor?
- SHOW OFF 01
- DID NOT SHOW OFF 00
16. Mother introduces interviewer to child. A formal introduction is not necessary for credit. A comment such as, "This is Mrs. Jones, she's here to talk to us," or "Show Mrs. Jones the new book you got for your birthday" will receive credit. The object is for the mother to make the child aware of the visitor's name and the fact that she has come to visit both of them and not just the mother.
- INTRODUCE 01
- DID NOT INTRODUCE 00
17. Mother uses complex sentence structure and some long words in conversing. If the mother makes an attempt to carry on a regular conversation instead of just finding a way to answer all of the questions with "Yes" or "No" or "I don't know" and not giving any explanation, this should be scored "01."
- COMPLEX 01
- NOT COMPLEX 00
18. Mother does not scold (yell) or derogate child more than once during visit. In this item all remarks must be made to the child; that is, the mother must tell the child that he is a bad boy and not simply tell the interviewer that the child is bad. If this occurs more than once during the visit, the item should be scored "00."
- DID NOT SCOLD 01
- SCOLD 00

19. Mother does not use physical restraint, shake, grab, or pinch child during visit. In a younger child, the mother might be apt to hold the child in her lap even though the child struggles to get down. An older child might be placed in a chair to keep him out of the way, or he might be jerked back for handling items on a table or pulled away if he tried to climb on the interviewer's lap.

DID NOT USE RESTRAINT 01

RESTRAINED 00

20. Mother neither slaps nor spansks child during visit. This item goes hand in hand with No. 19. In this item the slaps and spanks must be in anger or as a reprimand for some wrongdoing. An affectionate pat on the bottom as the mother sends the child out to play does not mean the item should receive a "00."

DID NOT SLAP OR SPANK 01

SLAP OR SPANK 00

BIBLIOGRAPHY

- Achenbach, T. M., & Edelbrock, C. S. (1983). *Manual for the Child Behavior Checklist and Revised Child Behavior Profile*. Burlington: Department of Psychiatry, University of Vermont.
- Administration for Children & Families (ACF) press office. (2006, February 8). News Release: Welfare reform reauthorized. Retrieved July 5, 2006, at <http://dhhs.gov/news/press/2006pres/20060208.html>
- Aguinis, H., & Stone-Romero, E. F. (1997). Methodological artifacts in moderated multiple regression and their effects on statistical power. *Journal of Applied Psychology*, 82(1), 192-206.
- Alexander, K. L., & Entwistle, D. R. (1988). Achievement in the first two years of school. *Monographs of the Society for Research in Child Development*, 53(Serial No. 218).
- Amato, P. R., & Booth, A. (1997). *A generation at risk: Growing up in an era of family upheaval*. Cambridge, MA: Harvard University Press.
- Amato, P. R., & Fowler, F. (2002). Parenting practices, child adjustment, and family diversity. *Journal of Marriage and the Family*, 64, 703-716.
- Amato, P. R., & Gilbreth, J. G. (1999). Nonresident fathers and children's well-being: A meta-analysis. *Journal of Marriage and the Family*, 61, 557-573.
- Amato, P. R., & Rezac, S. (1994). Contact with nonresident parents, interparental conflict, and children's behavior. *Journal of Family Issues*, 15, 191-207.
- Anderson, C. A. & Hammen, C. L. (1993). Psychosocial outcomes of children of unipolar depressed, bipolar, medically ill, and normal women: A longitudinal study. *Journal of Consulting and Clinical Psychology*, 61(3), 448-454.
- Baker, P. (2007). Self-Efficacy, co-parenting relationship, and parent satisfaction: Variables that predict paternal involvement by non-custodial fathers. Unpublished doctoral dissertation, University of Pittsburgh, Pittsburgh.
- Baumrind, D. (1972). An exploratory study of socialization effects on Black children: Some Black-White comparisons. *Child Development*, 43(1), 261-267.
- Beck, C. T. (1999). Maternal depression and child behavior problems: A meta-analysis. *Journal of Advanced Nursing*, 29(3), 623-629.

- Belsky, J. (1984). The determinants of parenting: A process model. *Child Development*, 55, 83-96.
- Bitler, M. P., Gelbach, J. B., Hoynes, H. W., & Zavodny, M. (2004). The impact of welfare reform on marriage and divorce. *Demography*, 41(2), 213-236.
- Black, M. M., Dubowitz, H., & Starr, R. H. (1999). African American fathers in low-income, urban families: Development, behavior and home environment of their three-year-old children. *Child Development*, 70(4), 967-978.
- Block, J. H., Block, J., & Morrison, A. (1981). Parental agreement-disagreement on child-rearing orientations and gender-related personality correlates in children. *Child Development*, 52, 965-974.
- Bradley, R. H., & Caldwell, B. M. (1984). The relations of infants' home environments to achievement test performance in first grade: A follow-up study. *Child Development*, 55, 803-809.
- Bradley, R. H., & Caldwell, B. M. (2003). *HOME inventory administration manual: Standard edition* (2nd Ed). University of Arkansas for Medical Sciences and University of Arkansas at Little Rock.
- Bronfenbrenner, U. (1979). *The ecology of human development*. Cambridge, MA: Harvard University Press.
- Bronfenbrenner, U. (1986). Ecology of the family as a context for human development: Research perspectives. *Developmental Psychology*, 22(6), 723-742.
- Bronfenbrenner, U. (1998). *Making human beings human*. Thousand Oaks, CA: Sage Publications.
- Bronfenbrenner, U., & Ceci, S. J. (1994). Nature-nurture reconceptualization in developmental perspective: A bioecological model. *Psychological Review*, 101(4), 568-586.
- Brody, G. H., Dorsey, S., Forehand, R., & Armistand, L. (2002). Unique and protective contributions of parenting and classroom processes to the adjustment of African American children living in single-parent families. *Child Development*, 73(1), 274-286.
- Brody, G. H., Stoneman, Z., Flor, D. (1995). Linking family processes and academic competence among rural African American youth. *Journal of Marriage and the Family*, 57, 567-579.
- Brooks-Gunn, J., & Duncan, G.J. (1995). The effects of poverty on children. *Children and poverty*. *Future of Children*, 7(2), 55-71.

- Brooks-Gunn, J., & Markman, L. B. (2005). The contribution of parenting to ethnic and racial gaps in school readiness. *School readiness: Closing racial and ethnic gaps*. Future of Children, 15(1), (pp. 139-168). Los Altos, CA: David and Lucile Packard Foundation.
- Brown, G. W., & Moran, P. M. (1997). Single mothers, poverty and depression. *Psychological Medicine*, 27, 21-33.
- Bryant, C. M. & Wickrama, K. A. S. (2005). Marital relationships of African Americans. In V. C. McLoyd, N. E. Hill, & K. A. Dodge (Eds), *African American family life: Ecological and cultural diversity*. New York: The Guilford Press.
- Buehler, C., Anthony, C., Krishnakumar, A., Stone, G., Gerard, J., & Pemberton, S. (1997). Interparental conflict and youth problem behaviors: A meta-analysis. *Journal of Child and Family Studies*, 6(2), 233-247.
- Carlson, M., & McLanahan, S. (2002). Fragile families, father involvement and public policy. In C. S. Tamis-LeMonda, & N. Cabrera (Eds.), *Handbook of father involvement: Multidisciplinary perspectives* (pp.461-488). Mahwah, NJ: Lawrence Erlbaum Associates.
- Carlson, M., McLanahan, S., & Brooks-Gunn, J. (2005). Unmarried but not absent: Fathers' Involvement with children after a nonmarital birth. Center for Research on Child Wellbeing, Center of the Woodrow Wilson School at Princeton University, Working Paper #05-07-FF.
- Carlson, M., McLanahan, S., & England, P. (2004). Union formation in fragile families. *Demography*, 41(2), 237-261.
- Center for Human Resource Research. (2000). *NLSY79: 1998 child and young adult users' guide (The Ohio State University)*. Columbus: Center for Human Resource Research, The Ohio State University.
- Chang, L., Lansford, J. E., Schwartz, D., & Farver, J. M. (2004). Marital quality, maternal depressed affect, harsh parenting, and child externalizing in Hong Kong Chinese families. *International Journal of Behavioral Development*, 28(4), 311-318.
- Chase-Lansdale, P. L., Gordon, R. A., Brooks-Gunn, J., & Klebanov, P. (1997). Neighborhood and family influences on the intellectual and behavioral competence of preschool and early school-age children. In J. Brooks-Gunn, G. J. Duncan, & J. L. Aber (Eds.), *Neighborhood poverty: Context and consequences for children* (Vol. I, pp. 79-118). New York: Russell Sage Foundation.
- Child Trends. (2006). Percentage of births to unmarried women. *DataBank*. Retrieved March, 25, 2006, at www.childtrends.org.
- Children's Defense Fund (1994). *Wasting America's Future*, Washington, DC.

- Coie, J. D., Watt, N. F., West, S. G., Hawkins, J. D., Asarnow, J. R., Markman, H. J., et al. (1993). The science of prevention: A conceptual framework and some directions for a national research program. *American Psychologist*, 48, 1013-1022.
- Coley, R. L. (2001). (In)visible men: Emerging research on low-income, unmarried, and minority fathers. *American Psychologist*, 56(9), 743-753.
- Coley, R. L. (1998). Children's socialization experiences and functioning in single-mother households: The importance of father and other men. *Child Development*, 69(1), 219-230.
- Coley, R. L., & Morris, J. E. (2002). Comparing father and mother reports of father involvement among low-income minority families. *Journal of Marriage and the Family*, 64, 982-997.
- Collins, P. H. (2004). *Black sexual politics: African Americans, gender, and the new racism*. New York: Routledge.
- Conger, R. D. & Conger, K. J. (2002). Resilience in Midwestern Families: Selected Findings from the First Decade of a Prospective, Longitudinal Study. *Journal of Marriage and Family*, 64(2), 361-373.
- Conger, R. D., Conger, K. J., Elder, G. H, Lorenz, F. O., Simons, R. L., & Whitbeck, L. B. (1992). A family process model of economic hardship and adjustment of early adolescent boys. *Child Development*, 63, 526-541.
- Conger, R. D., McLoyd, V. C., Wallace, L. E., Sun, Y., Simons, R. L., & Brody, G. H. (2002). Economic pressure in African American families: A replication and extension of the family stress model. *Developmental Psychology*, 38(2), 179-193.
- Connell, A. M., & Goodman, S. H. (2002). The association between psychopathology in fathers versus mothers and children's internalizing and externalizing behavior problems: A meta-analysis. *Psychological Bulletin*, 128(5), 746-773.
- Cowen, P.A., Cowan, C.P., & Schulz, M.S. (1996). Thinking about risk and resilience in families. In E.M. Hetherington & E.A. Blechman (Eds.), *Stress, coping, & resiliency in children & families* (pp.1-37). Mahwah, NJ: Lawrence Erlbaum.
- Cummings, E. M., & Davies, P. T. (2002). Effects of marital conflict on children: Recent advances and emerging themes in process-oriented research. *Journal of Child Psychology and Psychiatry*, 43(1), 31-63.
- Cummings, E. M., & Davies, P. T. (1994). Maternal depression and child development. *Journal of Child Psychology and Psychiatry*, 35, 73-112.

- Davies, P. T. & Cummings, E. M. (1998). Exploring children's emotional security as a mediator of the link between marital relations and child adjustment. *Child Development*, 69, 124-139.
- Davies, P. T., Harold, G. T., Goeke-Morey, M. C., & Cummings, E. M. (2002). Child Emotional Security and Interparental Conflict. *Monographs of the Society for Research in Child Development*, 67(3), Serial No. 270.
- Davies, P. T., Sturge-Apple, M. L., & Cummings, E. M. (2004). Interdependencies among interparental discord and parenting practices: The role of adult vulnerability and relationship perturbations. *Development and Psychopathology*, 16(3), 773-797.
- Davies, P. T., Sturge-Apple, M. L., Winter, M. A., Cummings, E. M., & Farrell, D. (2006). Child adaptational development in contexts of interparental conflict over time. *Child Development*, 77(1), 218-233.
- Dawson, D., Williams, C., Thomas, J., & McCowan, L. (2005). Framing the future: A fatherhood and healthy marriage forum. *Summary Report: African American Healthy Marriage Initiative*. U.S. Department of Health and Human Services, Administration for Children and Families.
- Deal, J. E., Halverson, C. F., & Wampler, K. S. (1989). Parental agreement on child-rearing orientations: Relations to parental, marital, family and child characteristics. *Child Development*, 60, 1025-1034.
- Demo, D. H., & Cox, M. J. (2000). Families with young children: A review of research in the 1990s. *Journal of Marriage and the Family*, 62(4), 876-895.
- Dillman, D. A. (2000). *Mail and internet surveys: The tailored design method*. (2nd ed.). New York: John Wiley & Sons, Inc.
- Dilworth-Anderson, P., & Marshall, S. (1996). Social support and its cultural context. In G.R. Pierce, B.R., Sarason, and I.G. Sarason (Eds.), *Handbook of social support and family*, New York: Plenum Press, 67-78.
- Dion, M. R., Devaney, B., McConnell, S., Ford, M., Hill, H., & Winston, P. (2002). Chapter II – Family formation in low-income populations. *Helping unwed parents build strong and healthy marriages: A conceptual framework for interventions*. Mathematica Policy Research, Inc. Retrieved July 5, 2006, at http://www.acf.hhs.gov/programs/opre/strengthen/strengthfam/reports/conceptual_framework/framework_chp2.html
- Downey, G. & Coyne, J. C. (1990). Children of depressed parents: An integrative review. *Psychological Bulletin*, 108(1), 50-76.

- Dubow, E. F., & Ippolito, M. F. (1994). Effects of poverty and quality of home environment on change in the academic and behavioral adjustment of elementary school-age children. *Journal of Clinical Child Psychology*, 23, 401-412.
- Duncan, G., & Brooks-Gunn, J., (Eds.). (1997). *Consequences of growing up poor*. New York: Russell Sage Foundation.
- Duncan, G. J. & Rodgers, W. L. (1988). Longitudinal aspects of childhood poverty. *Journal of Marriage and the Family*, 50, 1007–1021.
- Eamon, M. K. (2001). The effects of poverty on children's socioemotional development: An ecological systems analysis. *Social Work*, 46(3), 256-266.
- Edin, K., & Kefalas, M. (2005). *Promises I can keep: Why poor mothers put motherhood before marriage*. Berkeley, CA: University of California Press.
- Emery, R. E. (1982). Interparental conflict and the children of discord and divorce. *Psychological Bulletin*, 92(3), 310-330.
- Erel, O., & Burman, B. (1995). Interrelatedness of marital relations and parent-child relations: A meta-analytic review. *Psychological Bulletin*, 118, 108-132.
- Field, A. (2005). *Discovering statistics using SPSS*. (2nd Ed). London: Sage Publications.
- Forehand, R., Jones, D., Brody, G., & Armistead, L. (2002). African American children's development: The roles of maternal and teacher depressive symptoms. *Journal of Marriage and the Family*, 64, 1012-1023.
- Formoso, D., Gonzales, N. A., Aiken, L. S. (2000). Family conflict and children's internalizing and externalizing behavior: Protective factors. *American Journal of Community Psychology*, 28(2), 175-199.
- Fraser, M. W. (2004). The ecology of childhood: A multisystems perspective. In M.W. Fraser (Ed.), *Risk and Resilience in Childhood: An Ecological Perspective* (pp. 1-12). Washington, DC: NASW Press.
- Fraser, M. W., Kirby, L. D., & Smokowski, P. R. (2004). Risk and resilience in childhood. In M.W. Fraser (Ed.), *Risk and Resilience in Childhood: An Ecological Perspective* (pp. 13-66). Washington, DC: NASW Press.
- Furstenberg, F. F., & Harris, K. M. (1993). When and why fathers matter: Impacts of father involvement on the children of adolescent mothers. In R. I. Lerman and T. J. Ooms (Eds.), *Young unwed fathers* (pp.117-138). Philadelphia: Temple University Press.
- Garmezy, N. (1993). Children in poverty: Resilience despite risk. [*Psychiatry*](#), 56(1), 127-36.

- Garrett, P., Ng'andu, N., & Ferron, J. (1994). Poverty experiences of young children and the quality of their home environments. *Child Development*, 65, 331–345.
- Gibson-Davis, C.M., Edin, K., & McLanahan, S. (2005). High hopes but even higher expectations: The retreat from marriage among low-income couples. *Journal of Marriage and the Family*, 67, 1301-1312.
- Gilbert, M. C., (2004) Childhood depression: A risk factor perspective. In M.W. Fraser (Ed.), *Risk and Resilience in Childhood: An Ecological Perspective* (pp. 315-346). Washington, DC: NASW Press.
- Glass, G. V., & Hopkins, K. D. (1995). *Statistical Methods in Education and Psychology*. Needham Heights, MA: Allyn & Bacon.
- Gollob, H. F., & Reichardt, C. S. (1987). Taking account of time lags in causal models. *Child Development*, 58, 80-92.
- Gortmaker, S. L., Walker, D. K., Weitzman, M., & Sobel, A. M. (1990). Chronic conditions, socioeconomic risks, and behavioral problems in children and adolescents. *Pediatrics*, 85, 267-276.
- Gottman, J. M., & Notarius, C. I. (2000). Decade review: Observing marital interaction. *Journal of Marriage and the Family*, 62, 927-947.
- Greene, A. D., & Moore, K. A. (2000). Nonresident father involvement and child well-being among young children in families on welfare. *Marriage & Family Review*, 29(2/3), 159-180.
- Grych, J. H., & Fincham, F. D. (2001). Interparental conflict and children's adjustment: An overview. In J. H. Grych & F. Fincham (Eds.), *Child Development and Interparental Conflict*. New York: Cambridge University Press.
- Grych, J. H., Seid, M., & Fincham, F. D. (1992). Assessing marital conflict from the child's perspective. *Child Development*, 63, 558-572.
- Halgunseth, L. C., Ispa, J. M., Csizmadia, A., & Thornburg, K. R. (2005). Relations among maternal racial identity, maternal parenting behavior, and child outcomes in low-income, urban, Black families. *Journal of Black Psychology*, 31(4), 418-440.
- Hamilton, B. E., Sutton, P. D., & Ventura, S. J. (2003). Table 9. Nonmarital childbearing according to detailed race and Hispanic origin of mother, and maternal age: United States, selected years 1970-2001. Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System, Birth File. Retrieved July 28, 2006, from <http://www.cdc.gov/nchs/data/hus/tables/2003/03hus009.pdf>

- Hammen, C., Adrian, C., Gordon, D., Burge, D., Jaenicke, C., & Hiroto, D. (1987). Children of depressed mothers: Maternal strain and symptom predictors of dysfunction. *Journal of Abnormal Psychology*, 96(3), 190-198.
- Hammen, C., Burge, D., & Stansbury, K. (1990). Relationship of mother and child variables to child outcomes in a high-risk sample: A causal modeling analysis. *Developmental Psychology*, 26(1), 24-30.
- Hanson, T. L., McLanahan, S., & Thomson, E. (1997). Economic resources, parental practices, and children's well-being. In G. Duncan, & J. Brooks-Gunn (Eds.). *Consequences of growing up poor* (pp.190-238). New York: Russell Sage Foundation.
- Harold, G. T., Shelton, K. H., Goeke-Morey, M. C., & Cummings, E. M. (2004). Marital conflict, child emotional security about family relationships and child adjustment. *Social Relations*, 13(3), 350-376.
- Heiland, F., & Liu, S. H. (2006). Family structure and wellbeing of the out-of-wedlock children: The significance of the biological parents' relationship. Center for Research on Child Wellbeing Working Paper #06-21-FF.
- Hetherington, E. M. (2005). Divorce and the adjustment of children. *Pediatrics in Review*. 26(5), 163-169.
- Hetherington, E. M., Bridges, M., & Isabella, G. M. (1998). What matters? What does not? Five perspectives on the association between marital transitions and children's adjustment. *American Psychologist*, 53(2), 167-184.
- Hetherington, E. M. & Stanley-Hagan, M. M. (1997). The effects of divorce on fathers and their children. In M.E. Lamb (Ed.) *The Role of the Father in Child Development* (3rd Ed.) 19-39, New York: John Wiley.
- Hetherington, E. M. & Stanley-Hagan, M. M. (1999). The adjustment of children with divorced parents: A risk and resiliency perspective. *Journal of Child Psychology and Psychiatry*, 40(1), 129-140.
- HHS News. (2006, September 25). New report shows most unwed parents in program interested in healthy marriage. Retrieved December 12, 2006, from http://www.acf.hhs.gov/news/press/2006/BSF_Report_Sept_06.htm
- Hijjawi, G.R., Wilson, M., & Turkheimer, E. (2003). An exploratory analysis of father involvement in low-income families. Center for Research on Wellbeing, Working Paper #03-01-FF.
- Hill, S. A. (2005). *Black intimacies: A gender perspective on families and relationships*. Walnut Creek, CA: Altamira Press.

- Ingoldsby, E. M., Shaw, D. S., Garcia, M. M. (2001). Intrafamily conflict in relation to boys' adjustment in school. *Development and Psychopathology*, 13(1), 35-52.
- Ingoldsby, E. M., Shaw, D. S., Owens, E. B., & Winslow, E.B. (1999). A longitudinal study of interparental conflict, emotional and behavioral reactivity, and preschoolers' adjustment problems among low-income families. *Journal of Abnormal Child Psychology*, 27(5), 343-356.
- Jackson, A. P. (1998). The role of social support in parenting for low-income, single, Black mothers. *Social Service Review*, 72, 365-378.
- Jackson, A. P. (1999). The effects of nonresident father involvement on single black mothers and their young children. *Social Work*, 44(2), 156-166.
- Jackson, A. P. (2003). The effects of family and neighborhood characteristics on the behavioral and cognitive development of poor Black children: A longitudinal study. *American Journal of Community Psychology*, 32, 175-186.
- Jackson, A. P., Brooks-Gunn, J., Huang, C., & Glassman, M. (2000). Single mothers in low-wage jobs: Financial strain, parenting, and preschoolers' outcomes. *Child Development*, 71, 1409-1423.
- Jackson, A. P., & Huang, C. C. (1998). Concerns about children's development: Implications for single, employed Black mothers' well-being. *Social Work*, 22(4), 233-240.
- Jackson, A. P., & Scheines, R. (2005). Single mothers' self-efficacy, parenting in the home environment, and children's development in a two-wave study. *Social Work Research*, 29(1), 7-20.
- Jaffee, S. R., Moffitt, T. E., Caspi, A., & Taylor, A. (2003). Life with (or without) father: The benefits of living with two biological parents depend on the father's antisocial behavior. *Child Development*, 74(1), 109-126.
- Johnson, D. J. (1996). Father presence matters: A review of the literature. *National Center on Fathers and Families*. Philadelphia, PA: University of Pennsylvania.
- Jones, D. J., Forehand, R., Dorsey, S., Foster, S. & Brody, G. (2005). Coparent support and conflict in African American single mother-headed families: Associations with maternal and child psychosocial functioning. *Journal of Family Violence*, 20(3), 141-150.
- Jouriles, E. N., Murphy, C. M., Farris, A. M., Smith, D. A., Richters, J. E., & Waters, E. (1991). Marital adjustment, parental disagreements about child rearing, and behavior problems in boys: Increasing the specificity of the marital assessment. *Child Development*, 62, 1424-1433.

- Katz, L. F., & Gottman, J. M. (1993). Buffering children from marital conflict and dissolution. *Journal of Child Psychology*, 26(2), 157-171.
- Katz, L. F., & Gottman, J. M. (1993). Patterns of marital conflict predict children's internalizing and externalizing behaviors. *Developmental Psychology*, 29(6), 940-950.
- Kenny, M. E., Gallagher, L. A., Alvarez-Salvat, R. & Silsby, J. (2002). Sources of support and psychological distress among academically successful inner-city youth. *Adolescence*, 37(145), 161-181.
- Kim-Cohen, J., Moffitt, T. E., Caspi, A., & Taylor, A. (2004). Genetic and environmental processes in young children's resilience and vulnerability to socioeconomic deprivation. *Child Development*, 75(3), 651-668.
- King, V. (1994). Variation in the consequences of nonresident father involvement for children's well-being. *Journal of Marriage and the Family*, 56(4), 963-972.
- King, V., & Heard, H. E. (1999). Nonresident father visitation, parental conflict, and mother's satisfaction: What's best for child well-being? *Journal of Marriage and the Family*, 61, 385-396.
- Koverola, C., Papas, M.A., Pitts, S., Murtaugh, C., Black, M.M., & Dubowitz, H. (2005). Longitudinal investigation of the relationship among maternal victimization, depressive symptoms, social support, and children's behavior and development. *Journal of International Violence*, 20(12), 1523-1546.
- Krishnakumar, A., & Buehler, C. (2000). Interparental conflict and parenting behaviors: A meta-analytic review. *Family Relations*, 49(1), 25-44.
- Lee, C. & Gotlib, I. H. (1989). Maternal depression and child adjustment: a longitudinal analysis. *Journal of Abnormal Psychology*, 98(1), 78-85.
- Lehmann, S., Shinn, N., Allen, J., & Simko, P. (1983). Measuring social supports. *Paper presented at the meeting of the American Psychological Association, Anaheim, Ca.*
- Liebow, E. (2003). Tally's Corner: A study of Negro streetcorner men. (2nd Ed.). Lanham, MD: Rowman & Littlefield Publishers, Inc.
- Leventhal, T., Martin, A., & Brooks-Gunn, J. (2004). The EC-HOME across five national data sets in the 3rd to 5th year of life. *Parenting: Science and Practice*, 4(2-3), 161-188.
- Luther, S. S., Cicchetti, D., Becker, B. (2000). The construct of resilience: A critical evaluation and guidelines for future work. *Child Development*, 71(3), 543-562.

- Maccoby, E. D., & Martin, J.A. (1983). Socialization in the context of the family: Parent-child interaction. In E. M. Hetherington (Ed.), *Mussen Manual of Child Psychology*, (Vol.4, 4th ed.), pp.1-102. New York: Wiley.
- McGroder, S. M. (2000). Parenting among low-income, African American single mothers with preschool-age children: Patterns, predictors, and developmental correlates. *Child Development*, 71(3), 752-771.
- McLanahan, S. (2004). Fragile families and the marriage agenda. In Kowaleski-Jones and Wolfinger (Eds). *Fragile Families and the Marriage Agenda* (pp. 1-22). New York: Springer Science and Business Media, Inc.
- McLanahan, S., Brooks-Gunn, J., Tienda, M., & Garfinkel, I. (2006). The Research Forum at the National Center for Children in Poverty – Fragile Families and Child Wellbeing Study, General Information. Retrieved December 14, 2006, from http://www.researchforum.org/project_printable_28.html
- McLanahan, S., Donahue, E., & Haskins, R. (2005). Introducing the Issue. In S. McLanahan, E. Donahue and R. Haskins. *Marriage and Child Well-Being* (pp. 3-12). Princeton-Brookings: The Future of Children.
- McLanahan, S., Garfinkel, I., Reichman, N., & Teitler, J. (2001). Unwed parents or fragile families? Implications for welfare and child support policy. In Wu and Wolfe (Eds.), *Out of Wedlock: Trends, Causes, and Consequences of Non Marital Fertility* (pp. 202-228). New York: Russell Sage Foundation.
- McLanahan, S., & Sandefur, G. (1994). *Growing up with a single parent: What helps, what hurts*. Boston: Harvard University Press.
- McLoyd, V. C. (1990). The impact of economic hardship on Black families and children: Psychological distress, parenting, and socioemotional development. *Child Development*, 61, 311-346.
- McLoyd, V. C. (1998). Socioeconomic disadvantage and child development. *American Psychologist*, 53(2), 185-204.
- McLoyd, V. C. (2006). The legacy of *Child Development's* 1990 *Special Issue on Minority Children*: An editorial review. *Child Development*, 77, 1142-1148.
- McLoyd, V. C., Cauce, A. M., Takeuchi, D., & Wilson, L. (2000). Marital processes and parental socialization in families of color: A decade in review. *Journal of Marriage and the Family*, 62, 1070-1093.
- McLoyd, V. C., Harper, C. I., & Copeland, N. L. (2001). Ethnic minority status, interparental conflict, and child development. In J. Grych & F. Fincham (Eds.), *Interparental conflict and child development* (pp. 98-128). New York: Cambridge University Press.

- Menaghan, E. G., & Parcel, T. L. (1991). Determining children's home environments: The impact of maternal characteristics and current occupational and family conditions. *Journal of Marriage and the Family*, 53, 417-431.
- Mezulis, A. H., Hyde, J. H., & Clark, R. (2004). Father involvement moderates the effect of maternal depression during a child's infancy on child behavior problems in kindergarten. *Journal of Family Psychology*, 18(4), 575-588.
- Mincy, R. B., & Sorensen, E. (1998). Deadbeats and turnips in child support reform. *Journal of Policy Analysis and Management*, 17, 44-51.
- Moffitt, T. E., Caspi, A., Harrington, H., & Milne, B. J. (2001). Males on the life-course-persistent and adolescence-limited antisocial pathways: Follow-up at age 26 years. [*Development and Psychopathology* 14](#), 179-207.
- Murry, V. M., Bynum, M. S., Brody, G. H., Willert, A., Stephens, D. (2001). African American single mothers and children in context: A review of studies on risk and resilience. *Clinical Child and Family Psychology Review*, 4(2), 133-155.
- Nievar, M. A., & Luster, T. (2006). Developmental Processes in African American Families: An Application of McLoyd's Theoretical Model. *Journal of Marriage and the Family*, 68(2) 320-331.
- New Responsible Fatherhood Initiative. (2000, January 26). The white house unveils new responsible fatherhood initiative to promote work and boost child support payments. The White House Office of the Press Secretary. Retrieved on July 7, 2006, at <http://clinton4.nara.gov/WH/New/html/20000204.html>
- Newton, R. R., & Rudestam, K. E. (1999). *Your statistical consultant: Answers to your data analysis questions*. Thousand Oaks, CA: Sage Publications.
- Nock, S. L. (2005). Marriage as a public issue. In S. McLanahan, E. Donahue, & R. Haskins (Eds.), *Marriage and Child Well-Being* (pp.13-23). Princeton-Brookings: The Future of Children.
- Office of Public Affairs. (2006, July) Welfare Reform Reauthorized. Retrieved July 2, 2006, from <http://www.acf.hhs.gov/opa/spotlight/welfarereauthorized.htm>
- O'Leary, S. G., & Vidair, H. B. (2005). Marital adjustment, child-rearing disagreements, and overreactive parenting: Predicting child behavior problems. *Journal of Family Psychology*, 19(2), 208-216.
- Orvaschel, H., Walsh-Allis, G., & Ye, W. (1988). Psychopathology in children of parents with recurrent depression. *Journal of Abnormal Child Psychology*, 16(1), 17-28.

- Osborn, C., & McLanahan, S. (2004). The effects of partnership instability on parenting and young children's health and behavior. Center for Research on Child Well-Being Working Paper #04-16-FF.
- Osborne, C., McLanahan, S., & Brooks-Gunn, J. (2004). Young children's behavioral problems in married and cohabitating families. Center for Research on Child Well-Being, Working Paper # 03-09-FF.
- Pachter, L. M., Aulinger, P., Palmer, R., & Weitzman, M. (2006). Do parenting and the home environment, maternal depression, neighborhood, and chronic poverty affect child behavioral problems differently in different racial-ethnic groups? *Pediatrics*, 117(4), 1329-1338.
- Patterson, J. (2002). Integrating family resilience with family stress theory. *Journal of Marriage and Family*, 64, 349-360.
- Patterson, O. (1999). *Rituals of blood: Consequences of slavery in two American centuries*. New York: Civitas Book Publisher.
- Peterson, J. L., & Zill, N. (1986). Marital disruption, parent-child relationships, and behavior problems in children. *Journal of Marriage and the Family*, 48, 295-307.
- Petterson, S. M., & Albers, A. B. (2001). Effects of poverty and maternal depression on early child development. *Child Development*, 72(6), 1794-1813.
- Radke-Yarrow, M., Nottelmann, E., Martinez, P, Fox, M. B., & Belmont, B. (1992). Young children of affectively ill parents: A longitudinal study of psychosocial development. *Journal of the American Academy of Child and Adolescent Psychiatry*, 31(1), 68-77.
- Radloff, L. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Journal of Applied Psychological Measurement*, 1, 385-401.
- Raver, C. C., & Knitzer, J. (2002). Ready to enter: What research tells policymakers about strategies to promote social and emotional school readiness among three- and four-year-olds. Promoting the emotional well-being of children and families, policy paper No. 3, National Center for Children in Poverty, Columbia University: New York.
- Reid, W. J., & Crisafulli, A. (1990) Marital discord and child behavior problems: A meta-analysis. *Journal of Abnormal Child Psychology*, 18(1), 105-117.
- Roberts, R.E. (1980). Reliability of the CES-D scale in different ethnic contexts. *Psychiatry*, 2, 125-134.
- Rodriquez, H. & Arnold, C. (1998, October). Children & divorce: A snapshot. Center for Law and Social Policy. Retrieved March 17, 2004, at http://www.clasp.org/DMS/Documents/1011885066.47/children_and_divorce.pdf

- Rosenberg, M. (1968). *The logic of survey analysis*. New York: Basic Books.
- Ross, C. E., & Mirowsky, J. (1984). Components of depressed mood in married men and women: The Center for Epidemiologic Studies' Depression Scale. *American Journal of Epidemiology*, 119, 997-1004.
- Rothbaum, F., & Weisz, J. R. (1994). Parental caregiving and child externalizing behavior in nonclinical samples: A meta-analysis. *Psychological Bulletin*, 116(1), 55-74.
- Roxburgh, S., Stephens, R. C., Toltzis, P., & Adkins, I. (2001). The value of children, parenting strains, and depression among urban African American mothers. *Sociological Forum*, 16(1), 55-72.
- Roy, K. (1999). Low-income single fathers in an African American community and the requirements of welfare reform. *Journal of Family Issues*, 20(4), 432-457.
- Rubin, A., & Babbie, E. (2001). *Research methods for social work*. (4th ed.). Belmont, CA: Wadsworth/Thomson Learning.
- Rutter, M. (1979). Protective factors in children's responses to stress and disadvantage. In J. S. Bruner & A. Gartin (Eds.), *Primary prevention of psychopathology* (Vol. 3), pp. 49-74. Hanover, NH: University Press of New England.
- Rutter, M. (1987). Psychosocial resilience and protective mechanisms. *American Journal of Orthopsychiatry*, 57, 316-331.
- Rutter, M. (1999). Resilience concepts and findings: Implications for family therapy. *Journal of Family Therapy*, 21, 119-144.
- Rutter, M., Pickles, A., Murray, R., Eaves, L. (2001). Testing Hypotheses on Specific Environmental Causal Effects on Behavior. *Psychological Bulletin*, 127(3), 291-324.
- Saluter, A. F. (1994, March). Marital status and living arrangements: March 1994. U.S. Department of Commerce, Economics and Statistics Administration, Bureau of the Census, Current Population Reports, Population Characteristics #P20-484, Washington, DC.
- Sano, Y. (2004). The complexity of nonresident father involvement in low-income families: Mothers' perspectives. Unpublished doctoral dissertation, Oregon State University, Corvallis.
- Secombe, K. (2002). "Beating the Odds" versus "Changing the Odds": Poverty, resilience, and family policy. *Journal of Marriage and Family*, 64(2), 384-394.

- Seifer, R., Sameroff, A.J., Baldwin, C.P., & Baldwin, A. (1992). Child and family factors that ameliorate risk between 4 and 13 years of age. *Journal for the American Academy of Child Adolescence and Psychiatry*, 31(5), 893-903.
- Shaw, D. S., Keenan, K., Vondra, J. I., Delliquadri, E. & Giovannelli, J. (1997). Antecedents of preschool children's internalizing problems: A longitudinal study of low-income families. *Journal of American Academy of Child and Adolescent Psychiatry*, 36(12), 1760-1767.
- Shaw, D. S., & Vondra, J. I. (1995). Attachment security and maternal predictors of early behavior problems: A longitudinal study of low-income families. *Journal of Abnormal Child Psychology*, 23, 335-356.
- Shaw, D. S., Vondra, J. I., Hommerding, K. D., Keenan, K., & Dunn, M. (1994). Chronic family adversity and early child behavior problems: A longitudinal study of low-income families. *Journal of Child Psychology and Psychiatry*, 35, 1109-1122.
- Shaw, D. S., Winslow, E. B., Owens, E. B., Vondra, J. I., Cohn, J. F., & Bell, R. Q. (1998). The development of early externalizing problems among children from low-income families: A transformational perspective. *Journal of Abnormal Child Psychology*, 26(2), 95-107.
- Sigle-Rushton, W., & McLanahan, S. (2002). Father absence and child well-being: A critical review. In D. Moynihan, L. Rainwater, & T. Smeeding (Eds.). *The future of the family* (pp.116-155). New York: Russell Sage Foundation.
- Simons, R. L., Lin, K., Gordon, L. C., Conger, R. D., & Lorenz, F. O. (1999). Explaining the higher incidence of adjustment problems among children of divorce compared with those in two-parent families. *Journal of Marriage and the Family*, 61, 1020-1033.
- Smith, C., & Carlson, B. E. (1997). Stress, coping, and resilience in children and youth. *Social Service Review*, 71(2), 231-256.
- Smokowski, P. R. (1998). Prevention and intervention strategies for promoting resilience in disadvantaged children. *Social Service Review*, 337-364.
- Spence, S.H., Naiman, J.M., Bor, W., O'Callaghan, M.J., & Williams, G.M. (2002). Maternal anxiety and depression, poverty and marital relationship factors during early childhood as predictors of anxiety and depressive symptoms in adolescence. *Journal of Child Psychology and Psychiatry*, 43(4), 457-469.
- Spencer, M. B. (1990). Identity processes among racial and ethnic minority children in America. *Child Development*, 61, 290-310.
- Spencer, M. S., Fitch, D., Grogan-Kaylor, A. & McBeath, B. (2005). The equivalence of the behavior problem index across U.S. ethnic groups. *Journal of Cross-Cultural Psychology*, 36(5), 573-589.

- Stack, C. B. (1974). *All our kin: Strategies for survival in a Black community*. New York: Harper & Row.
- Summers, J. A., Raikes, H., Butler, J., Spicer, P., Pan, B., Shaw, S., et al. (1999). Low-income fathers' and mothers' perceptions of the father role: A qualitative study in four early head start communities. *Infant Mental Health Journal*, 20(4), 291-304.
- Thompson, E., Hanson, T. L., & McLanahan, S. (1994). Family structure and child well-being: Economic resources vs. parental behaviors. *Social Forces*, 73, 221-242.
- U.S. Census Bureau. (2005). *America's families and living arrangements: 2005*. Retrieved March 11, 2007, from <http://www.census.gov/population/www/socdemo/hh-fam/cps2005.html>
- U.S. Census Bureau. (2005). *Historical tables: Poverty over time*. Retrieved May 14, 2005, from <http://www.census.gov/hhes/www/poverty/poverty.html>
- Walker, S. (2003). Social work and child mental health: psychosocial principles in community practice. *British Journal of Social Work*, 33, 673-687.
- Waller, M. R., & McLanahan, S. S. (2005). "His" and "her" marriage expectations: Determinants and consequences. *Journal of Marriage and the Family*, 67 (53), 53-63.
- Weisman, M. M., Wickramaratne, P., Nomura, Y., Warner, V., Verdelli, H., Pilowsky, D. J., et al. (2005). Families at high and low risk for depression: A 3-generation study. *Archives of General Psychiatry*, 62(1), 29-36.
- Weissman, M. M., Prusoff, B. A., Gammon, G. D., Merikangas, K. R., Leckman, J. F., & Kidd, K. K. (1984). Psychopathology in the children (ages 6-18) of depressed and normal parents. *Journal of the American Academy of Child Psychiatry*, 23(1), 78-84.
- Weitzman, M., Gortmaker, S.L. & Sobol, A.M. (1992). Maternal smoking and behavior problems of children. *Pediatrics*, 90(3), 342-349.
- Werner, E. E., & Smith, R. S. (1982). *Vulnerable but invincible: A study of resilient children*. New York: McGraw-Hill.
- Whisman, M. A. & McClelland, G. H. (2005). Designing, testing, and interpreting interactions and moderator effects in family research. *Journal of Family Psychology*, 19(1), 111-120.
- Whiteside-Mansell, L., Bradley, R. H., Owen, M. T., Randolph, S. M., & Cauce, A. M. (2003). Parenting and children's behavior at 36 months: Equivalence between African American and European American mother-child dyads. *Parenting: Science and Practice*, 3(3), 197-234.

- Wilcox, H., Field, T., Prodromidis, M., & Scafidi, F. (1998). Correlations between the BDI and CES-D in a sample of adolescent mothers. *Adolescence*, 33(131), 565-575.
- Wilson, M. N., Chambers, A., & Schmidt, K. M. (2001). Exploring relationship satisfaction using item response theory: A fathers' perspective. Center for Research on Child Wellbeing, Working Paper # 01-09-FF.
- Zimmerman, M. A., Salem, D. A., & Maton, K. I. (1995). Family structure and psychosocial correlates among urban African American adolescent males. *Child Development*, 66, 1598-1613.