DIVISION OF HOUSEHOLD LABOR AND
MATERNAL FUNCTIONING AMONG AT-RISK MOTHERS

A Thesis in
Human Development and Family Studies
by
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Submitted in Partial Fulfillment
of the Requirements
for the Degree of
Master of Science

December 2010
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Abstract

Despite elevated incidence of preterm births among African Americans, very little is known about how aspects of family functioning, such as the division of labor and maternal functioning, operate within this population of families. The current study examines the applicability of a reliable questionnaire of household labor division and support (Who Does What; Cowan & Cowan, 1988) in a predominantly low-income sample of urban-dwelling African American mothers with preterm infants. It was hypothesized that lower discrepancy between actual and preferred divisions of labor and child care tasks would predict higher levels of maternal self-efficacy and relationship satisfaction and lower levels of parental stress.

Participants were African American mothers of premature infants recruited into a larger study from four hospitals in the Baltimore/Washington, DC area. Of 173 mothers recruited, 79 who were married or living with partner served as subjects; assessments for the current analyses occurred at 32-36, 40-44, 54-58, and 94-98 weeks gestational age (GA). Scales used included the Dyadic Adjustment Scale (DAS, Spanier, 1976), Parenting Stress Index – Short Form (PSI-SF, Abidin, 1995), Maternal Self-Efficacy Scale (Teti & Gelfand, 1991), and the Who Does What? scale (WDW; Cowan et al., 1978). The WDW yields discrepancy scores between the mother’s actual and preferred divisions of labor, i.e., the greater the discrepancy, the less satisfied she is with the support she receives. Reliabilities were calculated for the WDW actual and preferred subscales from their respective time points; alphas ranged from .70 to .90. Discrepancy scores were calculated as the absolute difference between actual and preferred divisions of labor and showed very good to high internal consistency (.75-.93). Additionally, change and stability in the WDW were assessed using repeated-measures, univariate ANOVA and Pearson’s zero-order correlation coefficients, respectively. Significant main effects for time emerged for actual family
decisions, actual and preferred overall child care, and actual daily child care. Post-hoc contrasts suggested that mothers perceived increases in fathers assisting with family decisions, overall child care, and daily child care across the first year after their preterm infant’s birth; yet, mothers reported preferring that fathers assist more only with overall child care. Zero-order correlation coefficients demonstrated stability in all four subscales of the reported actual division of labor; however, two of the preferred subscales (family decisions and daily child care) were not particularly stable. Results of the stability analysis suggest that mothers had a stable level of perceived discrepancy between actual divisions of labor and child care, whereas their preferred divisions of labor and child care appeared to fluctuate across the transition to parenthood.

Lastly, in addition to these findings, analyses were also conducted to examine predicted change in maternal functioning as a function of mothers’ satisfaction with division household and childcare responsibilities. After employing LISREL to analyze the correlational structures, significant results indicated that household labor and relationship satisfaction were mutually influential towards the latter part of the first year of parenthood. Results also suggested that parenting stress and maternal self-efficacy, contrary to hypotheses, significantly influenced discrepancies for division of child care tasks.

The current study provides evidence of a reliable, stable measure of household labor and child care division for African American samples of mothers with preterm infants. Additionally, the current study illustrates mechanisms of family functioning during the transition to parenthood for African American parents of preterm infants, an understudied population. Findings not only have implications for co-parenting, but also contribute to the growing literature of family functioning among African Americans.
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Acknowledgements

I would like to thank my thesis committee of Drs. Teti and Rovine for their support and feedback. In particular, I would like to especially thank Doug Teti for all of his effort throughout the process.

I dedicate this thesis to Jason, for seeing my potential and using love to nudge it towards realization; to my parents, for their arduous encouragement during life’s tough times, and to my Soon-to-Be, who already inspires me to accept the past and be present to positively inspire the future.
Introduction

Despite elevated incidence of preterm births among African Americans, very little is known about how aspects of family functioning, such as the division of labor and maternal functioning, operate within this population of families. The current study examines the applicability of a reliable questionnaire of household labor division and support (Who Does What; Cowan & Cowan, 1988) in a predominantly low-income sample of urban-dwelling African American mothers with preterm infants. It was hypothesized that lower discrepancy between actual and preferred divisions of labor and child care tasks would predict higher levels of maternal self-efficacy and relationship satisfaction and lower levels of parental stress.

Participants were African American mothers of premature infants recruited into a larger study from four hospitals in the Baltimore/Washington, DC area. Of 173 mothers recruited, 79 who were married or living with partner served as subjects; assessments for the current analyses occurred at 32-36, 40-44, 54-58, and 94-98 weeks gestational age (GA). Scales used included the Dyadic Adjustment Scale (DAS, Spanier, 1976), Parenting Stress Index – Short Form (PSI-SF, Abidin, 1995), Maternal Self-Efficacy Scale (Teti & Gelfand, 1991), and the Who Does What? scale (WDW; Cowan et al., 1978). The WDW yields discrepancy scores between the mother’s actual and preferred divisions of labor, i.e., the greater the discrepancy, the less satisfied she is with the support she receives. Reliabilities were calculated for the WDW actual and preferred subscales from their respective time points; alphas ranged from .70 to .90. Discrepancy scores were calculated as the absolute difference between actual and preferred divisions of labor and showed very good to high internal consistency (.75-.93). Additionally, change and stability in the WDW were assessed using repeated-measures, univariate ANOVA and Pearson’s zero-order correlation coefficients, respectively. Significant main effects for time emerged for actual family
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Lastly, in addition to these findings, analyses were also conducted to examine predicted change in maternal functioning as a function of mothers’ satisfaction with division household and childcare responsibilities. After employing LISREL to analyze the correlational structures, significant results indicated that household labor and relationship satisfaction were mutually influential towards the latter part of the first year of parenthood. Results also suggested that parenting stress and maternal self-efficacy, contrary to hypotheses, significantly influenced discrepancies for division of child care tasks.

The current study provides evidence of a reliable, stable measure of household labor and child care division for African American samples of mothers with preterm infants. Additionally, the current study illustrates mechanisms of family functioning during the transition to parenthood for African American parents of preterm infants, an understudied population. Findings not only have implications for co-parenting, but also contribute to the growing literature of family functioning among African Americans.
Chapter 1. Review of the Literature

Extant research has shown that new parents face challenges that are associated with lowered marital satisfaction (Cowan & Cowan, 1988; Doss, Rhoades, Stanley, & Markman, 2009; Krieg, 2007; McHale, et al., 2004). New parents with preterm infants, however, have a myriad of stressors and responsibilities that may put them at a more pronounced risk for marital discontent (Jackson, Ternestedt, & Schollin, 2003; Weingarten, Baker, Manning, & Kutzner, 1990). Among preterm U.S. births, African Americans are more likely than other ethnic groups to give birth prematurely (Giscombé & Lobel, 2005; Messer, Kaufman, Mendola, & Laraia, 2008); moreover, this occurrence is still prevalent after controlling for educational and income levels in analysis (Rowley, 1994, 2001).

With evidence suggesting that household labor division relates to parents’ quality of relationship during the transition to parenthood (Cowan & Cowan, 1988; Cowan & Cowan, 1992; Krieg, 2007; McHale, et al., 2004; Terry, McHugh, & Noller, 1991), it is important to consider how the division of household labor, within the context of having a premature infant, can impact parents’ relationship satisfaction during the transition to parenthood. In addition, studies have yet to examine the quality of relationship among African American parents of preterm infants; accordingly, this thesis seeks to examine how perceptions of household labor division and childcare responsibilities are linked to relationship quality, parenting stress, and maternal self-efficacy among low income, African American mothers of preterm infants. The current study also aims to extend current literature by examining the reliability and stability of the Who Does What? questionnaire (Cowan & Cowan, 1988), a measure of the division of household labor and child care among dyads that assesses both the actual and preferred division
of tasks and which, to date, has yet to be analyzed among a sample of families with preterm infants.

Using previous literature as a conceptual map, the division of household labor (Thorp, Krause, Cukrowicz, & Lynch, 2004), perceptions of support (Thorp, et al., 2004), relationship quality, self-efficacy (Raver & Leadbeater, 1999; Teti & Gelfand, 1991) and stress will be examined. Social Exchange will serve as a theoretical heuristic of how the division of household tasks, perceived by mothers in the current study as partner support during the transition to parenthood, plays a role in relationship quality, parental stress, and maternal self-efficacy in the current sample.

*Division of Household Labor*

The division of household labor refers to tasks and responsibilities associated with running an effective household, including chores such as cleaning, laundry, and meal preparation. Various social science disciplines have conducted research on the division of household labor: in family sociology and demography, for example, self-reports from nationally representative surveys are typically aggregated to provide evidence of how division of labor is impacted by factors such as the dual-earner family (Meier, McNaughton-Cassill, & Lynch, 2006), marital status (Baxter, 2005) shared beliefs among dyads (Gager & Hohmann-Marriott, 2006; Hohmann-Marriott, 2006) cross-cultural comparisons (Cooke, 2006; Crompton, Brockmann, & Lyonette, 2005), and changing trends across age cohorts (Sayer, 2005). Researchers interested in family systems typically examine associations between the perceived division of household labor and factors such as perceived gender roles in marriage (Hochschild, 1989; McHale & Crouter, 1992; Starrels, 1994), violated wishes (Khazan, McHale, &
DeCourcey, 2008) and how specific aspects of the family system are impacted, such as marital quality (Cowan & Cowan, 1995).

Social Exchange Theory and the Division of Labor

Social exchange can be perceived as a cost-benefit process that occurs between two entities. Early theorizing by Homans (1958) posited that people give time and energy to others in order to receive the same in kind. This expectation incites recipients to respond; in doing so, a process begins by which exchange transpires between dyads. This process can be heuristically perceived as a cost-benefit analysis that may be subconsciously or consciously perceived by each person: for instance, that which is given can be construed as cost and that which is received a benefit (Homans, 1958). More recently, social exchange has been defined as “voluntary actions of individuals that are motivated by the returns they are expected to bring and typically do in fact bring from others” (Blau, 1964). Dyadic behavior between individuals fluctuates like scales of justice, where one person’s efforts weigh one side of the scale down, prompting the other person to give of him or herself for balance in the relationship.

Comparable to scales of justice is a theory of marriage proposed by Becker (1973), who created an equation to describe the marital unit as a market. This equation states that a man and a woman will seek to maximize the utility of the family unit by specializing in either housework or work outside of the home. At the time the theory was proposed, men earned substantially more income than women; thus, the gains to marriage during this particular time period promoted a wife to stay at home to do housework whereas a husband worked outside of the home for monetary income. Becker’s theory of marriage complements social exchange theory in that dyads have a balance in their relationship that is maintained by how much each partner gives to the relationship. Juxtaposition of these theories reveals that whereas Becker’s marriage theory is
strictly based on rational choice - defined as the rational calculation of costs and benefits of actions among partners before deciding what to contribute in a relationship (Becker, 1973) - exchange theory allows for emotion or sentiment to affect how a person is willing to give.

Exchange theory has been cited and examined by several researchers in attempts to better understand the motivated division of household tasks in modern families. Bittman and colleagues (2003) found that exchange theory was partially supported in both international and domestic samples, with results showing that as married partners contribute more to the family income, their housework decreases. Although this finding is consistent with other studies that have examined household labor division and family income (Mickelson, Claffey, & Williams, 2006; Milkie, Bianchi, Mattingly, & Robinson, 2002; Shelton & John, 1996), results from this particular study found a curvilinear effect such that a woman’s housework declined as her income increased, yet only to the point where married partners contribute income equally. Above this threshold, men conformed to a traditional division of household labor and did less housework (Bittman, England, Sayer, Folbre, & Matheson, 2003). These findings have implications for exchange in relationships and, in particular, how women might respond to an unfair exchange between partners. In this particular situation, Becker’s theory would posit that when women’s salaries resemble men’s, the gains to marriage are reduced. This is because specialization of the dyad will be imbalanced: As women participate more in the outside work force, their housework lessens, creating an imbalance in the family unit (Becker, 1973).

Division of Labor During the Transition to Parenthood

When childbirth occurs, parents spend more time on housework simply because of a commensurate increase in tasks; yet, despite increases in overall housework and with the addition of childcare, trends reveal that new mothers usually assume the majority of household
tasks during the transition to parenthood (Bianchi, Milkie, Sayer, & Robinson, 2000; Shelton & John, 1996). This is likely due to the reality that some tasks can only be done by mothers: for example, many new mothers assume a specialized caregiving role that demands significant amounts of time and energy both in a given day and night via breastfeeding. However, household tasks during the transition to parenthood increase to also include childcare responsibilities ranging from planning and implementing a child’s daily routine to managing medical care and legalities (Feinberg, 2003). With increased household tasks and sleep deprivation associated with young infants at home, the new parenting dyad must make adjustments to their schedules. Satisfaction in the division of labor among new parents is thus important because of its changing impact on relationship quality during the transition to parenthood.

Quality of Relationship During the Transition to Parenthood

The quality of relationship between couples can be complex to measure because of the many dimensions that relationship quality has the potential to impact. Spanier (1976) intended to capture the relationship quality among married and cohabiting partners using the Dyadic Adjustment Scale (DAS); yet, despite high reliability and validity of the DAS, Spanier urged researchers to continue in the development of scales that measure important relationship qualities of romantic dyads (Spanier, 1976). Additionally, for partners becoming parents, evidence has suggested that transitioning to new parenthood can predict steep declines in marital satisfaction (Cowan, et al., 1985; Lawrence, Cobb, Rothman, Rothman, & Bradbury, 2008; Perren, von Wyl, Burgin, Simoni, & von Klitzing, 2005); thus particularly for new parents, measures need to assess the unique factors involved with transitioning to parenthood and the variables most salient to relationship quality for new parents (Van Egeren & Hawkins, 2004), such as help and support (Floyd, Gilliom, & Costigan, 1998; Krieg, 2007; Lawrence, et al., 2008) and division of child
care tasks (Cowan & Cowan, 1988; Cowan, Cowan, Coie, & Coie, 1978; Lawrence, et al., 2008). The quality of the romantic relationship during the transition to parenthood is believed to derive from how well each member of the dyad balances their perception of their newly undertaken roles (Cowan, et al., 1978). In response to the call for more comprehensive measurement of new parents and with reply to the need for reliable, multidisciplinary scales, Cowan and colleagues identified and tested core dimensions of romantic relationships. One of these core dimensions is social role behavior, defined as a set of deeds between couples that define the roles in their relationship. These roles reflect both the balance of power as well as the division of labor in the dyadic relationship (Cowan, et al., 1978). Social role behavior and social exchange theory are complementary in that both imply a need for perceived balance in relationship that is decided upon by the dyad. The Cowan et al. study measured couple satisfaction in their roles using the *Who Does What?* questionnaire (WDW; Cowan et al., 1978), which assesses both the current division of labor between new parents and parents’ ideal divisions of labor. Interestingly, the authors found that after six months postpartum, all participants gravitated toward traditional roles, particularly during times of stress, despite their pre-partum scores (Cowan, et al, 1978). The results underscore the need to capture discrepancies felt by each member of the dyad in their household labor division rather than their gender role ideologies, particularly given that tasks have the potential of radically shifting during the transition to parenthood and that a discrepant score can indicate future relationship dissatisfaction.

In other studies of families, gender role ideologies were compared with self-reported actual division of household tasks and the preferred division, according to the reporter, to examine relationship quality in dyads. One study found that women who perceived themselves as egalitarian, yet who performed traditionally female household tasks, were typically less satisfied
and reportedly more negative in their relationships than women whose perceived gender roles and housework responsibilities were less discrepant (McHale & Crouter, 1992). This suggests that dissonance, derived from discrepancies between ideal and actual division of labor, can negatively impact relationship quality among couples. The discrepancy is known as “wish violations” among some researchers (Khazan, et al., 2008), and is similar to other research showing that the discrepancy between that which one perceives about the labor division and that which is desired about division is important to consider for relationship quality (Hochschild, 1989; Milkie, Bianchi, Mattingly, & Robinson, 2002). Thus, measuring household labor division should include measuring potential discrepancies in the ideal and actual division of tasks (i.e., wish violations) with the goal of tapping into potential mechanisms operating between perceived division of labor and the quality of relationship during the transition to parenthood.

The overlap of parenting and household labor tasks have led some family researchers interested in the transition to parenthood to conceptualize labor division among parents as a component of coparenting, a latent construct comprised of labor division, social support, and joint family management within dyads (Belsky, Putnam, & Crnic, 1996; Cowan & Cowan, 1992; Feinberg, 2003; S. M. McHale & Crouter, 1992). Indeed, many of the analyses conducted using the WDW have been conducted with the additional aim of tapping into the construct of coparenting. For example, McHale and Rotman (2007), using a prospective sample, found that couples’ belief systems during pregnancy affected their coparenting solidarity as far as one year after the birth of their first child, suggesting that how a couple perceives their relationship early on can impact their later coparenting cohesion. Prospective studies have also been informative on the association of household labor division, relationship quality, and coparenting. For instance, assessments during pregnancy of marital quality and later assessments of coparenting cohesion
and, more specifically, the labor inequity of childcare tasks are significantly related (McHale, et al., 2004). Another study found that couples characterized as having low marital quality demonstrated worse coparenting cohesion than couples with higher, more optimal marital quality (Schoppe-Sullivan, Mangelsdorf, Brown, & Szewczyk Sokolowski, 2007). In this particular study, using a sample of new parents with temperamentally difficult infants served as a quasi-control in confirming that differences between couples were attributable to variations in marital quality and not from merely having a temperamentally difficult child. Taken together, these studies highlight the association between division of household labor, relationship quality, and coparenting; as such, understanding how labor division and relationship are related in the current study will be informative to coparenting research; however, it is also important to keep in mind that the marital relationship is a “first-order source of support for parenting,” and although the romantic and coparenting relationship share commonalities, they are separate entities (Gable, Belsky, & Crnic, 1995).

**Household Labor Division as a Measurement of Partner Support**

The *Who Does What?* questionnaire (WDW; Cowan et al., 1978) has been used in several types of studies to capture perceived partner support in tandem with the division of household labor among dyads. For example, Khazan and colleagues (2008), using a sample of urban families (88% Caucasian, 12% minority), measured mothers and fathers using 12 childcare items (e.g., feeding, diapers, toys) from the WDW to assess how each partner anticipated the division of childcare to be and 12 childcare items to assess how parents wished the division of childcare could be once the baby will be born. Measurements were conducted during the 3rd trimester and at 3 months postpartum. The researchers created two indices, one being fathers’ participation in childcare responsibility (at 3 months) and degree to which mother’s wish violations, (i.e.,
perceptions of a pronounced discrepancy between the actual and ideal division of labor) were perceived to be violated. Analyses were conducted across time points to examine wish violations longitudinally; in addition, the authors hoped to assess which was more affected by wish violations: the marital or the emerging co-parenting relationship. Results found that for women, both the marriage and the emerging co-parenting relationship were negatively associated with their wish violations (Khazan, McHale & DeCourcey, 2008). The results contribute to discussions in the literature of the overlapping relations of perceived labor division and subsequent perceived lack of support and the relation to reduced marital satisfaction (Belsky & Hsieh, 1998; Cowan & Cowan, 1988).

Another study using a sample of Caucasian women used the WDW to correlate mothers’ perceived stress and demand-withdraw interactions (Thorp, et al., 2004). Demand-withdraw interactions were defined as the demand of household labor support from wives to husbands who subsequently withdraw support. Results revealed that demand-withdraw interactions mediated the relation between wish violations and stress. This finding empirically linked perceived support and stress levels in mothers during the transition to parenthood (Thorp, et al., 2004) and is consistent with literature that discusses the relation of labor division, stress, and marital satisfaction in that parents tend to feel happier in their marriage when they feel supported in their role (Feinberg, 2002).

Relatively scant research has tapped diverse samples on labor division and marital satisfaction. Because much of research has been conducted with middle and upper class Caucasian participants, little is known about the variation of the division of household labor in African American samples with exception of a select few. For example, a study on marital quality during the transition to parenthood found that both African American and Caucasian
couples’ marital quality declines as a function of parenthood and not merely as a function of an aging marriage (Crohan, 1996). The authors of the WDW questionnaire piloted the measure on a middle-class, 85% Caucasian (15% minority) sample; however, ethnic group differences were not reported (Cowan et al., 1988). Recently, a unique study measured the division of household labor among low-income, adolescent African American mothers who lived with their mothers to receive support in raising babies. Results were organized to categorize the strategies of parenting support the grandmothers were offering to their daughters in order to raise the infants (Oberlander, Black & Raymond, Jr., 2007). However, this is the only known study that has used the WDW on an exclusively African American sample. McHale & Rotman (2007), while using the WDW, noted the dearth of studies that focus on co-parenting within and between ethnic minority families, urging researchers to establish replications of studies conducted with Caucasian samples. To examine the impact of these variables within the current sample - a low-income, minority sample of families with preterm infants - a review of research on preterm infants is warranted.

**Racial Disparities Among Mothers with Preterm Births**

The preterm birth rate in the United States, characterized by babies delivered before less than 37 weeks gestation, was 12.5% in 2004, a 2% increase from 2003 (Martin, et al., 2004). In addition, since 1990, preterm births have risen 18% (Mathews, Menacker, & MacDorman, 2004). Preterm infants are an at-risk population (Friedman & Sigman, 1992) because of their propensity towards developmental delays. Overall increases in preterm births persist because of technological advances designed to provide sustainable care.

Research on preterm infants of specific racial groups has found disparities among African American mothers that make their early parenting situations unique from their Caucasian
counterparts. For instance, African American mothers disproportionately experience chronic stress because of less income and more societal barriers; these factors have been associated with childbirth at earlier gestational ages and with lower birth weights. For example, a recent meta-review indicated that after accounting for educational level, income, overall health, and marital status, African American mothers experienced persistently higher rates of preterm births than Caucasian mothers (Kashef, 2003). In addition, controlling for educational attainment revealed lower trends of infant mortality rates among Caucasian mothers, whereas the same did not occur among African American mothers (Rowley, 1994; 2001. Although no simple answer exists of why a racial gap persists, research points to several factors such as poverty, health behaviors, access to health care, and both indirect and direct effects of racism that contribute to a context of heightened risk for African American women (Giscombé & Lobel, 2005). Moreover, non-Caucasian mothers of preterm infants also report experiencing higher levels of stress than Caucasian mothers (Beckman & Pokorni, 1988). It is likely, then, that stress from several sources operates as a mechanism that contributes to heightened risk among African American mothers. It is important, however, to distinguish types of stress (e.g., acute, chronic) and duration of stress so that researchers can pinpoint targets for prevention efforts (Beckman & Pokorni, 1988).

Maternal Functioning in Mothers of Preterm Infants

Researchers have consistently found linkages indicating that prenatal stress, experienced by mothers, adversely affects birth weight and gestational age in their babies (Younger, Kendell, & Pickler, 1997). Thus, it is important to consider the factors that have the potential to negatively impact the mother during her preparation for motherhood and beyond. Indeed, one such study found that living in persistently dangerous neighborhoods over time was negatively associated with birth weight in a low income, African American sample (Lobel & Graham 2002).
Other studies that have examined stress in low-income families during the transition to parenthood have found more proximal, direct associations that impact stress levels such as informal social support and self-efficacy. For example, in a study of mothers with preterm infants, all participants were found to experience high amounts of stress after giving birth, yet those who felt increased amounts of social support reported increased mastery of their stress and, in turn, decreased stress (Younger et al., 1997). In another empirical example of support, Milkie and colleagues (2002) found that when the discrepancy was large between actual and ideal household task divisions among parents, mothers reported more stress. The authors argue that perceived lack of support begets stress among mothers, which can impact well-being (Milkie, Bianchi, Mattingly & Robinson, 2002). Additionally, a study of stress in families with preterm infants found that higher levels of informal support (e.g. spouse, friends) was associated with lower stress levels of mothers over the course of two years following childbirth (Beckman & Pokorni, 2001).

Taken together, the empirical studies underscore the need for identification of multiple risks that operate together to affect mothers during the transition to parenthood.

*Study Aims and Objectives*

As discussed earlier, research on the influence of household labor and child care division is scant among minority samples and nonexistent in preterm samples. Furthermore, despite the pronounced incidence of preterm births among African Americans, relatively little research has been conducted on the relationship quality of this population to discover risk and protective factors in African American families with preterm infants. In the present study, we expand on previous research by analyzing how a reliable questionnaire of household labor division and
support applies to a sample of urban-dwelling African American mothers with preterm infants. The thesis seeks to examine two broad research questions:

Aim 1: To examine the internal consistency and short- and long-term stability of the *Who Does What?* (WDW) questionnaire among a sample of urban-dwelling African American mothers of preterm infants.

Aim 2: To investigate if the WDW questionnaire of household labor division and child care tasks, examined longitudinally, was associated with maternal functioning (e.g., relationship satisfaction with partner, self-efficacy, stress) among a sample of urban-dwelling African American mothers of preterm infants. It was hypothesized that relations exist such that lower discrepancy between actual and preferred divisions of labor and child care tasks would be predictive of higher levels of maternal self-efficacy and relationship satisfaction and lower levels of parental stress.
Chapter 2. Method

Participants

African American mothers who were recruited as part of a larger study known as the Preterm Infant Development Study (PIDS) represented the study sample. Participants were recruited from four hospitals in Baltimore City, Maryland and Washington, DC. The overall aim of the study examined the efficacy of a 20-week intervention program that sought to promote positive parent-child interactions, intellectual and socio-emotional development for the infants, and a positive family adjustment to having a preterm infant. Mothers who were under 18 years of age or who had positive toxicology screenings were excluded from the study. Infants who were diagnosed with a chromosomal abnormality were also excluded from the study. After initial recruitment, parents were randomly selected into the intervention or control group; both groups received eight visits over the 20-week home visiting period. All parents received social support and general developmental information during the visits. Intervention parents participated in serial administrations using the Brazelton Neonatal Behavioral Assessment Scale (Brazelton & Nugent, 1995), watched an educational video on preterm infants, and learned infant massage.

Of the 295 eligible families approached by PIDS staff in the NICU, 173 of the infants and mothers were recruited for the study. Baseline data were collected when the infants were 32-36 weeks GA. The current study used a subset of study mothers that indicated they were married or living with a romantic partner (N= 79).

Procedure

There were four time points (infant post-conceptual age) of data collection that were analyzed in the current study: 1) 32-36 weeks; 2) 40-44 weeks; 3) 54-58 weeks (about 4 months of age, corrected for prematurity;) and 4) 94-98 weeks (12 months, corrected age). Demographic
variables were collected at baseline; the WDW (Household Tasks and Family Decisions subscales) were collected at baseline, 32-36, 40-44, 54-58 and 94-98 weeks. The Overall and Daily Child Care Responsibilities subscales were collected at 40-44, 54-58 and 94-98 weeks. Maternal self-efficacy and perceived parental stress were measured at 40-44, 54-58 and 94-98 weeks. Quality of relationship with partner was measured at all four time points in the present study (32-36, 40-44, 54-58 and 94-98 weeks).

Measures

Quality of Relationship with Partner.

The Dyadic Adjustment Scale (DAS) is a measure of relationship quality in couples that has demonstrated construct validity as well as high scale reliability (Spanier, 1976). One item of the DAS was used in the current study to test dyadic satisfaction. Participants were asked to choose an answer that best reflects the level of happiness in the relationship. Answer choices ranged from 0 = Very Unhappy; 2 = Fairly Unhappy; 7 = A Little Unhappy; 15 = Happy; 20 = Very Happy; 25 = Extremely Happy; 35 = Perfect. Also asked in the DAS are subscales of cohesion, consensus, and affective expression. Questions about division of responsibilities in the relationship include household tasks, handling finances and leisure time interests and activities. Response choices for these questions were on a 6-point scale where 0 = Always disagree; 1 = Almost always disagree; 2 = Frequently disagree; 3 = Occasionally disagree; 4 = Almost Always Agree; 5 = Frequently Agree; 6 = Always Agree. Cronbach’s alphas across time points for this scale can be found in Table 4b.

Division of Household Labor.

The Who Does What? scale (WDW; Cowan et al., 1978) measures mothers’ perceptions of partner involvement in household tasks, family decision-making, and childcare.
responsibilities. Questions included “planning and preparing meals;” “buying groceries, household needs;” “looking after the car;” and “working outside the family.”

Response items for questions are comprised of two columns: “How it is now” and “How I would like it to be.” Response options are on a 9-point scale; 1 = the female partner is primarily responsible for the given task, 9 = primary responsibility on the part of the male partner. The median score of 5 indicates that the dyad shares tasks equally. Based on previous studies (Thorp et al., 2004; Cowan & Cowan, 1988), a composite index of perceived support from partners was derived by first summing the “How it is now” and “How I would like it to be” scales and subsequently calculating the absolute difference for each item. In the current study, the reliability for this index was consistently high and will be discussed in the results section – results can be viewed in Table 4a.

*Perceived Parenting Stress of Mothers.*

Mother’s parenting stress was assessed via the 36-item Parenting Stress Index Short Form (PSI-SF, Abidin, 1995). The PSI-SF is comprised of three subscales: 1) Parental Distress, indicating levels of distress at the individual level (e.g., depression, conflict with partner); 2) Parent–Child Dysfunctional Interaction subscale indicates a parent’s dissatisfaction with interactions with their children; 3) The Difficult Child subscale measures a parent’s perception of their child’s ability to self-regulate. Mothers were asked to indicate the truth of statements such as “I find myself giving up more of my life to meet my child’s needs than I ever expected,” “Having a child caused problems with my spouse” and “Child is more of a problem than expected”. Response options were on a 5-point scale; -2 = *Strongly disagree*; -1 = *Disagree*; 0 = *Not sure*; 1 = *Agree*; 2 = *Strongly agree*. Cronbach’s alphas across time points for this scale can be found in Table 4b.
Maternal Self-Efficacy.

The maternal self-efficacy scale (Teti & Gelfand, 1991) measures perceived efficacy in mothers regarding various domains related to childcare (e.g., understanding what the child wants, knowing what the child enjoys, soothing the child). The scale is comprised of 10 items rated on a 4-point scale, with 1= Not good at all, 2=Not good enough, 3=Good enough, and 4=Very good, with higher scores indicating higher feelings of effectiveness. Items include ‘‘How good are you at getting your baby to have fun with you? For example, how good are you at getting your baby to smile and laugh with you?’’ Scores were calculated by summing the individual items to create a summary score for each participant. A standardized Cronbach’s alpha of .79 was reported by Teti and Gelfand (1991); in the current study, maternal self-efficacy was measured three times, with acceptable to good reliability (see Table 4b).

Analytic Strategy

For Aim 1, missing variable procedures were employed for the construction of composite variables: Summary scores that had 20% or less of the items missing in the composite were created by assigning the mean of the non-missing items to the missing items and then summing all the items. When more than 20% of the items in a summary score were missing, the entirety was treated as missing data.

Next, descriptive statistics and correlations were computed to both assess the degree of association of the WDW subscales across study time points and also between the WDW and maternal functioning variables. After being established to have good reliability, composite variables from the discrepancy scores of the independent variable were generated. Correlations calculated from each composite variable of the WDW and each of the maternal functioning variables subsequently were used in path analysis (see Table 6 for descriptive statistics). LISREL
8.5 (Jöreskog and Sörbom, 2001) was utilized to analyze the correlation matrix and estimate the models of hypothesized effects. The two composite manifest variables of the independent variable (WDW) were: 1) household labor, comprised of the household tasks and family decisions subscales; 2) child care, comprised of daily and overall child care subscales. Twenty-four models in total were estimated. Models consisted of the following types: 1) Stability-only models (n=6), which did not have any cross-lags in the model; 2) Models with independent variables (e.g., WDW subscales) at t predicting the dependent variables’ residualized gains (e.g., maternal functioning variables) at t +1 (n=6 models); 3) Models with dependent variables (e.g., maternal functioning variables) at t predicting independent variables’ residualized gains (e.g., WDW subscales) at t +1 (n=6 models); 4) Final models, constructed such that the independent and dependent variables at time t predict their respective counterparts at t +1 in a cross-lagged fashion (n=6 models). For the final models, cross-lags were constructed so that the prediction of Aim 2 would be strengthened; i.e., if a beta in one of the cross-lagged models was significant in a particular direction, this would indicate that a predictive relation exists after having allowed one variable to have predictive power of the second variable. Thus, adding this cross-lagged model employs a more rigorous evaluation of the variable associations. Finally, model fit was assessed by the non-normed fit index (NNFI), comparative fit index (CFI), and the root-mean-square error of approximation (RMSEA).
Chapter 3. Results

Aim 1

Preliminary Analyses

The means and standard deviations for the Aim 1 WDW variables are presented in Table 1. All variables included in analysis had distributions that fell within the limits of the assumptions of normality.

WDW Reliability. To address the internal consistency of the WDW, two tests were conducted. First, reliability analyses calculated Cronbach’s alphas for all subscales of the WDW (household tasks, family decisions, overall and daily child care) and included both actual and desired division of labor across the study time points. Reliabilities ranged from .70 to .97 (see Table 4a). Next, reliability coefficients were calculated for the difference scores created from the actual and preferred subscales of the WDW. Alphas ranged from acceptable (.71) to very good (.81; see Table 4a). As a precaution, internal consistencies for the dependent variables were also calculated. Cronbach’s alphas ranged from very good (.75) to excellent (.93) (see Table 4b).

Group Change – Actual and Preferred Divisions of Household Labor and Child Care.

Secondly, to address continuity of the WDW, discrepancy scores from the four subscales of the Who Does What (WDW) were subjected to repeated measures, univariate analysis of variance (RM-ANOVA) with time as the within-subjects factor. Hertzog and Rovine (1983) note that omnibus tests are required when a priori hypotheses are not generated; thus, following this protocol for omnibus RM-ANOVA, sphericity for the 4 subscales was inspected via Mauchly’s Test (see Table 5a). The test suggested that the observed matrix variances and covariances were not equal for the family decisions subscale; thus, for these particular values, an uncorrected $F$-
test is likely to inflate the likelihood of Type I Error (i.e., rejecting null hypotheses when, more likely, they should be supported). In the current study, Huynh-Feldt coefficients were used when sphericity was violated (when the coefficients >.75). No significant linear effects emerged among the variables, suggesting that mother discrepancies between actual and preferred household labor division do not significantly differ over the time points in the current study.

**Group Change – Relationship Satisfaction.** Scores on the DAS for the 4 time points measured were subjected to repeated-measures, univariate analysis of variance with time as the within-subjects factor. No significant time effect emerged from this analysis (see Table 5b). Inspection of the relevant means displayed in Table 1 highlights a linear decline in relationship satisfaction scores, though the change was not of sufficient magnitude to achieve significance.

**Group Change – Maternal Self-Efficacy.** Scores on maternal self-efficacy for the 3 time points measured were subjected to repeated-measures, univariate analysis of variance with time as the within-subjects factor. A significant time effect, $F(6,52) = 4.372, p < .05$ emerged from this analysis. Inspection of the relevant means displayed in Table 4 highlights that maternal self-efficacy changed for mothers in this sample across the transition to parenthood. In post-hoc contrasts, a significant quadratic effect was found, $F(2,52)=6.964, p<.050$, suggesting that mothers’ self-efficacy, on average, increased between 40-44 and 54-58 weeks GA but then began to decline somewhere between 54-58 and 94-98 weeks GA.

**Group Change – Parenting Stress.** Scores on parenting stress for the 3 time points measured were subjected to repeated-measures, univariate analysis of variance with time as the within-subjects factor. A significant time effect, $F(2,52) = 4.478, p < .05$, emerged from this analysis. Inspection of the relevant means displayed in Table 6 highlights that parenting stress did change across the transition to parenthood for the current sample. In post-hoc contrast
analysis, a significant quadratic effect was found, \( F(2,52)=10.756, p<.01 \), suggesting that parenting stress, on average, increased fairly steeply between 40-44 and 54-58 weeks GA and then began to decline somewhere between 54-58 and 94-98 weeks GA.

**Aim 2**

*Preliminary Analyses*

Means and standard deviations for Aim 2 variables (both composite variables of the WDW and maternal functioning variables) are shown in Table 6. Pearson zero-order correlations were calculated to validate the selection of maternal functioning variables in relation to both household labor and child care. All variables included in Aim 2 analyses had distributions that fell within the limits of the assumptions of normality for regression and correlation.

*Household Labor Multivariate Results.* It was hypothesized that fewer discrepancies between mothers’ actual and preferred division of household labor would predict better maternal functioning (i.e., higher relationship satisfaction, higher maternal self-efficacy and lower parenting stress) over time. The multivariate results partially supported these hypotheses.

For relationship satisfaction, the hypothesis of an inverse relation between discrepancies in the division of household labor and relationship satisfaction over time was supported. The analysis revealed the cross-lagged model to be the best fit for the data, \( \chi^2(15)=80.66, p<.001 \). Fit indices indicated that this model could be significantly improved, however, with the SRMR=.12, NNFI=.68 and CFI=.83. Despite these sub-par indices, the cross-lagged model was significantly better than the stability only model \( (\Delta\chi^2=39.49, \Delta df=4) \) and the other lagged models compared with the stability-only model. The results suggest that from 40-44 to 54-58 weeks GA, higher relationship satisfaction predicted lower discrepancy in division of household labor, \( \beta=-.50 (.09), t=-5.50 \). In turn, from 54-58 to 94-98 weeks GA, higher discrepancies in the
division of household labor predicted lower relationship satisfaction, $\beta = -0.34 \pm 0.08$, $t = -4.01$ (see Figures 1a-1d).

For maternal self-efficacy, the hypothesis of an inverse relation between discrepancies in the division of household labor with maternal self-efficacy over time was not supported. This analysis revealed the cross-lagged model to be the best fit for the data, $\chi^2 (8) = 5.12, p = .53$. Fit indices were SRMR=.05, NNFI=1.03 and CFI=1.00. The cross-lagged model was significantly better than both the stability only model ($\Delta \chi^2 = 31.78$, $\Delta df = 4$) and the other models that were compared with the stability-only model. The cross-lagged results do not suggest a predictive relation between household labor and maternal self-efficacy (see Figures 2a-2d).

For parenting stress, the hypothesis of a significant relation between discrepancies in the division of household labor with parenting stress over time was not supported. This analysis revealed the cross-lagged model to be the best fit for the data, $\chi^2 (8) = 16.23, p < .05$. Fit indices were SRMR=.07, NNFI=.89 and CFI=.73. The cross-lagged model was significantly better than both the stability only model ($\Delta \chi^2 = 93.24$, $\Delta df = 4$) and the other lagged models that were compared with the stability-only model. The cross-lagged results do not suggest a predictive relation between household labor and parenting stress (see Figures 3a-3d).

*Child Care Multivariate Results.* It was hypothesized that fewer discrepancies between mothers’ actual and preferred divisions of household labor would predict better maternal functioning (i.e., higher relationship satisfaction, higher maternal self-efficacy, lower parenting stress) over time. The multivariate results partially supported these hypotheses for the following relationships:

For relationship satisfaction, the hypothesis of an inverse relation between discrepancies in the division of child care tasks with relationship satisfaction over time was not supported. This
analysis revealed the cross-lagged model to be the best fit for the data, $\chi^2 (8)=30.25, p<.001$. Fit indices were SRMR=.07, NNFI=.78 and CFI=.91. The cross-lagged model was significantly better than both the stability only model ($\Delta \chi^2 =.55, \Delta df=4$) and the other lagged models that were compared with the stability-only model. The cross-lagged results do not suggest a predictive relation between child care and relationship satisfaction (see Figures 4a-4d).

For maternal self-efficacy, the hypothesis of an inverse relation between discrepancies in the division of child care tasks with maternal self-efficacy over time was not supported. This analysis revealed the cross-lagged model to be the best fit for the data, $\chi^2 (15)=123.33, p<.001$. Fit indices indicated that this model could be significantly improved, however, with SRMR=.16, NNFI=.28 and CFI=.49. Despite these poor indices, the cross-lagged model was significantly better than both the stability only model ($\Delta \chi^2 =46.99, \Delta df=4$) and the other lagged models compared with the stability-only model. The results suggest that from 40-44 to 54-58 weeks GA, higher maternal self-efficacy predicted higher perceived discrepancies in division of child care tasks $\beta=.34 (.08), t=4.53$. In turn, from 54-58 to 94-98 weeks GA, perceived discrepancies in division of child care tasks predicted higher maternal self-efficacy, $\beta=.37 (.09), t=4.37$ (see Figures 5a-5d).

For parenting stress, the hypothesis that fewer discrepancies in the division of child care tasks would predict lower parenting stress over time was supported. This analysis revealed the cross-lagged model to be the best fit for the data, $\chi^2 (15)=74.56, p<.001$. Fit indices indicated that this model could be significantly improved, however, with SRMR=.09, NNFI=.44 and CFI=.77. Despite these sub-par indices, the cross-lagged model was significantly better than both the stability only model ($\Delta \chi^2 =69.67, \Delta df=4$) and the other lagged models compared with the stability-only model. The results suggest that from 54-58 to 94-98 weeks GA, higher perceived
discrepancy in division of child care tasks predicted higher parenting stress $\beta=.41 (.08)$, $t=5.11$. It should be noted also that from 40-44 to 54-58 weeks GA, discrepancies were approaching significance, $\beta=.17 (.09)$, $t=1.92$. However, significant betas are shown in the dependent variable as well. For example, from 40-44 to 54-58 weeks GA, higher parenting stress predicted higher perceived discrepancy in division of child care tasks $\beta=.48 (.06)$, $t=7.56$ and also from 54-58 weeks to 94-98 weeks, $\beta=.26 (.10)$, $t=2.67$ (see Figures 6a-6d).
Chapter 4. Discussion

The aim of the present study was to analyze discrepancies in the division of household labor and child care among low-income, African American mothers of preterm infants and to investigate how these discrepancies relate to maternal functioning. After establishing the WDW as an internally consistent, stable measurement, it was then hypothesized that fewer discrepancies in the division of household labor and child care and would be predictive of higher relationship satisfaction and maternal self-efficacy and lower levels of parenting stress. Overall, hypotheses were partially supported.

Discussion of Findings

WDW as a Reliable, Valid Measure for African American Mothers of Preterm Infants

The dearth of research on African American families during the transition to parenthood underscores the need for better understanding of family functioning in this population. The WDW, measured across the first year after childbirth, has been a reliable measure in prior homogeneous samples (e.g., McHale et al., 2004) and showed good reliability in the current study as well. The reliability analysis extends the extant co-parenting literature in its indication that the WDW is an appropriate measure to use in low-income populations of African American mothers when their infants are premature.

In addition to being reliable, correlation analyses of the WDW measure reflected that mothers in this sample exhibited rank order stability across the transition to parenthood. For example, stability was demonstrated in all four subscales of the actual division of labor and two of the four preferred division of labor subscales (household tasks and overall child care), whereas two preferred subscales, family decisions and daily child care, were not stable. Results of stability analyses suggest that, in general, African American mothers of preterm infants have
consistent levels of discrepancy of how household labor and child care are actually divided and how they should be divided among their partners, whereas a mother’s preferred division of household labor and child care changes across the first year postpartum. These findings are similar to research that has been conducted on Caucasian samples: several studies have indicated that new parents experience frequent conflicts because of the remarkable increase in household labor and child care (Cowan & Cowan, 1995; Khazan, et al., 2008; MacDermid, Huston, & McHale, 1990). Perhaps increased responsibility towards preterm infants requires even more work than fathers realized; thus while mothers note an increase in father’s household labor and child care, it is simply not enough effort to offset the burgeoning responsibilities associated with having a preterm infant.

The WDW was subsequently assessed for mean-level change. Results revealed significant mean level increases in family decision-making and child care performed by fathers (as reported by mothers) across the study time points; however, mothers indicated preferring additional assistance with child care and not with family decisions or household tasks (i.e., means for the latter two subscales did not change significantly over time). The finding indicates that some extra work fathers are taking on (namely, household labor) might not be appreciated in contrast to offering to bathe the baby, waking up more in the middle of the night to feed or change diapers, or other tasks corresponding to child care.

Some literature has discussed the co-parenting triad as an evolving one even at its inception (McHale et al., 2004); thus, while parents begin adapting to a rapidly developing new person in the relationship, they are also navigating their own parenting roles and the roles of their partners. This navigation occurs while novel parenting responsibilities emerge a rapidly changing pace across the transition to parenthood. Although mothers in the current study do recognize and
report help from fathers, their preference for more help with only child care and not the more typical household duties suggests that they are likely overwhelmed with all that they must do specifically for the infant. This is in line with studies using Caucasian, middle-class samples, some of which have reported that mothers desire more help from fathers, particularly with child care (Goldberg & Perry-Jenkins, 2004; Grote, Clark & Moore, 2004; Feldman, 2000).

In a Swedish study (Lindberg, Axelsson & Ohrling, 2008), new fathers reported feeling stressed that their children were not born full-term; additionally, some of the fathers also described a delayed attachment to their preterm infants; however, this attachment grew over time. Perhaps similar stress occurs among fathers such as ones in the current study and which leads to their reserve in performing child care tasks. Interestingly, a recent couples intervention focusing on the sharing of household labor duties resulted in fathers becoming more involved with child care, a finding that was surprising to the investigators (Hawkins, Lovejoy, Holmes, Blanchard & Fawcett, 2008) and a potential future direction for prevention efforts.

**Discrepancies of Household Labor and Child Care with Relationship Satisfaction**

Extant research has been fairly consistent in demonstrating that the division of household labor is predictive of satisfaction in romantic relationships (Hochschild, 1989; Khazan, et al., 2008; McHale & Crouter, 1992; Milkie, Bianchi, Mattingly & Robinson, 2002). For example, one such study found that women who perceived themselves as egalitarian yet performed traditionally female household tasks were less satisfied in their relationships than women whose perceived gender roles and housework responsibilities were less discrepant (McHale & Crouter, 1992). Given these studies and the correlations in the current study, preliminary analyses had suggested that discrepancies in household labor division would, in fact, negatively impact relationship quality among couples when subjected to multivariate analyses. Results showed that
this is indeed true for the current sample, suggesting that African American mothers with preterm infants are similar to other populations of mothers with regard to the division of household labor and satisfaction in their romantic relationships. Given that many low-income mothers describe themselves as egalitarian (Edin & Kafalas, 2005), perhaps the study mothers share similar typological beliefs; thus, when fathers are not helping in a satisfactory way, mothers become disheartened about their relationship.

Despite low correlations between discrepancies in the division of child care and relationship satisfaction, multivariate relations were tested. This was largely done because of empirical evidence that pointed toward their association. For instance, a study that analyzed several aspects of coparenting together (e.g., labor inequity, relationship quality, coparenting cohesion) found the three significantly related to each other pre- and post-partum (McHale, et al., 2004). The current study was thus expected to contain these significant relations but did not. A reason for the null finding could be that mothers from the current sample do not believe that having discrepancies in division of child care relates to the satisfaction in their romantic relationship. Perhaps coparenting culturally or socioeconomically varies among these particular mothers than with other groups assessed on this construct. Yet, Gable and colleagues advise keeping in mind that the marital relationship is a “first-order source of support for parenting,” and that even though the romantic and coparenting relationship share commonalities, they are indeed separate entities (Gable et al., 1995). Perhaps mothers in the current study do not conflate these entities as much as other mothers because their perceptions of their romantic relationship remain separate from the context of child care. This suggests that low-income, African American mothers have specific ideas of how fathers should be involved during the transition to
parenthood; moreover, these ideas may be different from Caucasian mothers or African American mothers with full-term infants.

Discrepancies of Household Labor and Child Care with Maternal Self-Efficacy

Regarding the hypotheses that discrepancies in division of household labor and child care would predict maternal self-efficacy, the null hypotheses could not be rejected. Given that some pathways between time points of these constructs showed significance in correlational analysis, multivariate tests were expected to show significant predictive relations between the IV and DV for both sets of models but did not. However, unexpected results were found in the child care and maternal self-efficacy models; namely, that with regard to child care tasks, maternal self-efficacy predicted approximately 35% of the variance in discrepancies reported about the division of child care. These results suggest that mothers with higher maternal self-efficacy perceive significantly higher discrepancies in the division of child care with her partner. These particular models should be interpreted with caution due to problems related to fit indices, including a negative NNFI (see Table 8). However, if true, the results imply that maternal self-efficacy might operate differently in low-income African American mothers of preterm infants than in Caucasian samples. Perhaps current study mothers and their partners have increased gender imbalances with regard to parenting roles, a process that stems from what Walzer calls “an invisible, mental labor” (Walzer, 1996, p.219) caused by more prominent worry for the child on the part of mothers. Given the precarious nature of preterm childbirth, it is possible that mothers in the current study spent more time worrying about their infants than normative samples; thus, mothers who possess prominent worry despite their strong maternal self-efficacy may conclude that their partners should be doing a lot more with child care than they were actually doing in order to properly care for their preterm infant. Teasing this relationship out in
future studies will be beneficial in understanding how maternal self-efficacy operates in low-income African American mothers.

Discrepancies of Household Labor and Child Care with Parenting Stress.

The hypothesis regarding household labor and parenting stress was not supported. While research suggests that support in the household and parenting stress are related (Milkie, et al., 2002; Younger et al., 1997), the data in the current study did not find this relation. It is possible that the current study did not take into consideration other factors relating to stressors among the current study’s population. Turning to literature on low-income families, one study found that living in persistently dangerous neighborhoods over time was negatively associated with birth weight in a low income, African American sample (Lobel & Graham 2002). Thus, there could be other factors related to stress in the current sample that are more proximal to mothers than the division of household and child care tasks (e.g., income supports, government assistance, levels of perceived social cohesion in low-income neighborhoods).

Another plausibility for the null finding is that attitudes about the divisions of household labor among the current sample of mothers reflect those of low-income single mothers, who reported having egalitarian beliefs despite their male counterpart’s adherence to more traditional family roles (Edin & Kafalas, 2005). Given that a disproportionately high ratio of low-income men are African American, i.e., unemployment rates for African American men run twice as high as for other ethnic groups, both majority and minority (U.S. Census Bureau, 2010), fathers in the current sample may be more likely to be un- or under-employed. In turn, low-income mothers may take on unequal amounts of responsibility for housework because they assume that their male counterparts, with traditional gender role beliefs, will not be available to contribute to the share of the housework and child care even if they are available to do so. If true, then it is not
surprising that the division of household labor does not affect levels of maternal parenting stress. Perhaps mothers in the current study already knew they would have to be both a significant contributor to the family income and a primary caregiver and housekeeper to their children. And consequently their self-efficacy and stress levels might be impervious to how much housework they perform. A study by Goldberg and Perry-Jenkins (2004) found that the division of child care significantly predicted more stress than the division of household labor; notably, the study was conducted with working-class mothers. Together, results from the current study and the Goldberg and Perry-Jenkins study suggest that stress factors and mechanisms likely operate differently among low- or working-class mothers than factors and mechanisms in middle class mothers.

Regarding child care tasks, parenting stress significantly predicted child care discrepancies from Time 2 to Time 3 and parenting stress and discrepancies in the division of child care significantly predicted each other by the end of the first year. Results suggest a process whereby mothers with higher parenting stress subsequently perceive significantly higher discrepancies in the division of child care tasks. The reverse occurs at the following measurement point (i.e., discrepancies predict stress) even while higher stress is concurrently predicting higher discrepancies. These particular models should be interpreted with caution due to problems related to fit indices (see Table 8). If indeed correct, however, it may be the case that mothers suffering from higher levels of parental distress foster greater stress in fathers in relation to child care. In response, fathers may react by reducing their involvement in child care, which in turn promoted even greater levels of parenting stress in the mother. Perhaps these models represent the direct relation between a mother’s worry (Walzer, 1996) and the perceived discrepancies of child care between parents. Other studies corroborate this notion; Goldberg and
Perry-Jenkins (2004), for example, discuss a process evolving from mothers’ violated expectations about the division of labor followed by experiencing postnatal parenting distress, with gender ideology moderating this relation. Grote and colleagues (2004) found that after mothers began perceiving that the care performed for their child was unfair as compared with father’s care, both parents were more likely to report subsequent levels of stress (Grote, Clark & Moore, 2004).

**Limitations**

The current study was not without its limitations. One such limitation was that participants were not measured prior to the child’s birth, so we cannot be sure that the declines in relationship satisfaction started when the child was born or if it began occurring before the baby was born. Thus, direction of effects in this sample cannot be absolutely determined, although previous research using prospective samples have evidenced that declines occur after the onset of parenthood (Cowan & Cowan, 1995; Crohan, 1996).

Another limitation to the study is sample size. The current study began with 79 participants at wave 1 - we selected only the mothers who were married or living as if they were married with their partner – and ended with 54. Programs using latent frameworks are sensitive to sample size; thus, having more power in the study could have resulted in a more parsimonious fit among the relationship satisfaction models and the parenting stress models. Additionally, attrition in the sample, compounded with the small sample size, could have contributed to the lack of fit among the variables.

Other limitations include that it is unknown from the results whether or not the unexpected finding in maternal self-efficacy is a result of being low-income or alternatively a result stemming from cultural differences between the current sample and other samples.
measured using the same instrument. Lastly, because the mothers were asked if they were “married or living with a partner,” the study is not able to delineate married respondents from cohabiting respondents, an important distinction particularly given the unknown variances of attitudes among African American mothers.

Conclusion

One of the 2 study aims was to longitudinally analyze the WDW to see if it is valid for use in populations similar to the current study’s sample. The other study aim was to test a conceptual model examining division of household labor and child care with three maternal functioning variables within the context of African American mothers of pre-term infants. Specifically, we examined the impact of discrepancies in division of household labor and child care on relationship satisfaction, maternal self-efficacy, and parenting stress outcomes. Results confirmed that the WDW is a reliable, valid measure to use in low-income, African American populations. Findings confirmed some of the aim 2 hypotheses, most notably that discrepancies in the division of household labor impacts relationship satisfaction that low-income African American mothers feel towards their partners during the transition to parenthood. Additionally, the findings confirmed two unexpected relations: 1) That when mothers’ maternal self-efficacy is high, their discrepancies of child care division are subsequently higher; 2) That when mother’s parenting stress is high, a process occurs whereby discrepancies over the division of child care increase, which begets yet more subsequent parenting stress. This study’s novelty was in examining family functioning in low-income African American families with preterm infants by exploring factors that have yet to be empirically discussed or measured on the study’s population.
References


*Edin, K. & Kefalas, M. Promises I Can Keep: Why Poor Women Put Motherhood Before*


Appendix A – Tables

Table 1.

*Descriptive Statistics of the Who Does What Questionnaire of Household Labor and Child Care Division.*

<table>
<thead>
<tr>
<th>Child’s Post-Conceptional Age (Weeks)</th>
<th>32-36 n=78</th>
<th>40-44 n=65</th>
<th>54-58 n=58</th>
<th>94-98 n=54</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Actual</td>
<td>Preferred</td>
<td>Actual</td>
<td>Preferred</td>
</tr>
<tr>
<td></td>
<td>M  SD</td>
<td>M  SD</td>
<td>M  SD</td>
<td>M  SD</td>
</tr>
<tr>
<td>Household Tasks</td>
<td>62.82 14.37</td>
<td>73.56 10.57</td>
<td>60.29 16.76</td>
<td>71.40 13.26</td>
</tr>
<tr>
<td>Family Decisions</td>
<td>58.37 11.33</td>
<td>61.04 6.86</td>
<td>71.61 7.94</td>
<td>56.49 15.16</td>
</tr>
<tr>
<td>Overall Child Care</td>
<td>44.80 17.67</td>
<td>65.45 9.67</td>
<td>63.97 25.00</td>
<td>91.31 10.27</td>
</tr>
<tr>
<td>Daily Child Care</td>
<td>36.82 18.68</td>
<td>56.47 10.68</td>
<td>37.80 17.62</td>
<td>56.85 7.64</td>
</tr>
</tbody>
</table>
Table 2.

*Short- and Long-term Stability Coefficients (Pearson’s Correlations) of WDW Subscales.*

<table>
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<tr>
<th></th>
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<th>2</th>
<th>3</th>
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<tbody>
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<td>.483**</td>
<td>.625**</td>
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<tr>
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<td>.421**</td>
<td>.451**</td>
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<tr>
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<td>Family decisions (actual), time 2</td>
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<td>1</td>
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<td>.648**</td>
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<td>Family decisions (actual), time 4</td>
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<td>.564**</td>
<td>.619**</td>
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<td></td>
<td></td>
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<tr>
<td>Overall childcare (preferred), time 3</td>
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<td>1</td>
<td></td>
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<td>Overall childcare (preferred), time 4</td>
<td>.284*</td>
<td>.324*</td>
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<td>.680**</td>
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<td></td>
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<td>Daily childcare (preferred), time 3</td>
<td>.690**</td>
<td>1</td>
<td></td>
<td></td>
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<tr>
<td>Daily childcare (preferred), time 4</td>
<td>.255</td>
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***p < .001; *p < .05***
Table 3.


<table>
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<tr>
<th>WDW Difference Scores</th>
<th>Time</th>
</tr>
</thead>
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<tr>
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<tr>
<td>Household tasks time 1</td>
<td>1</td>
</tr>
<tr>
<td>Household tasks time 2</td>
<td>.508**</td>
</tr>
<tr>
<td>Household tasks time 3</td>
<td>.385***</td>
</tr>
<tr>
<td>Household tasks time 4</td>
<td>.447**</td>
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<tr>
<td>Family decisions time 1</td>
<td></td>
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<tr>
<td>Family decisions time 2</td>
<td>.677**</td>
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<tr>
<td>Family decisions time 3</td>
<td>.321*</td>
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<tr>
<td>Family decisions time 4</td>
<td>.355**</td>
</tr>
<tr>
<td>Overall childcare time 2</td>
<td></td>
</tr>
<tr>
<td>Overall childcare time 3</td>
<td></td>
</tr>
<tr>
<td>Overall childcare time 4</td>
<td></td>
</tr>
<tr>
<td>Daily childcare time 2</td>
<td></td>
</tr>
<tr>
<td>Daily childcare time 3</td>
<td></td>
</tr>
<tr>
<td>Daily childcare time 4</td>
<td></td>
</tr>
</tbody>
</table>

**=p<.001; *=p<.05
Table 4a.  

*Internal Consistencies (Cronbach’s Alphas) for WDW Subscales and Difference Scores.*

<table>
<thead>
<tr>
<th>Subscale</th>
<th>1 (32-36 weeks)</th>
<th>2 (40-44 weeks)</th>
<th>3 (54-58 weeks)</th>
<th>4 (94-98 weeks)</th>
<th>Difference Score</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Actual</td>
<td>Preferred</td>
<td>Actual</td>
<td>Preferred</td>
<td>Actual</td>
</tr>
<tr>
<td>Household Tasks</td>
<td>0.90</td>
<td>0.70</td>
<td>0.89</td>
<td>0.82</td>
<td>0.92</td>
</tr>
<tr>
<td>Family Decisions</td>
<td>0.91</td>
<td>0.89</td>
<td>0.90</td>
<td>0.70</td>
<td>0.94</td>
</tr>
<tr>
<td>Overall Child Care</td>
<td>-</td>
<td>-</td>
<td>0.94</td>
<td>0.91</td>
<td>0.97</td>
</tr>
<tr>
<td>Daily Child Care</td>
<td>-</td>
<td>-</td>
<td>0.91</td>
<td>0.86</td>
<td>0.91</td>
</tr>
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</table>

Table 4b.  

*Internal Consistencies (Cronbach’s Alphas) of Dependent Variables.*

<table>
<thead>
<tr>
<th>Variables</th>
<th>32-36</th>
<th>40-44</th>
<th>54-58</th>
<th>94-98</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationship Quality</td>
<td>0.80</td>
<td>0.93</td>
<td>0.90</td>
<td>0.93</td>
</tr>
<tr>
<td>Maternal Self-Efficacy</td>
<td>0.79</td>
<td>0.77</td>
<td>0.75</td>
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</tr>
<tr>
<td>Parenting Stress</td>
<td>0.81</td>
<td>0.79</td>
<td>0.77</td>
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</tr>
</tbody>
</table>
Table 5a.

**Sphericity Tests for Homogenous Variances.**

<table>
<thead>
<tr>
<th>Scale</th>
<th>W</th>
<th>$X^2$</th>
<th>df</th>
<th>p</th>
<th>Greenhouse Geisser $\varepsilon$</th>
<th>Huynh-Feldt $\varepsilon$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household Tasks</td>
<td>0.86</td>
<td>7.18</td>
<td>5</td>
<td>ns</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Family Decisions</td>
<td>0.64</td>
<td>19.8</td>
<td>5</td>
<td>&lt;.01</td>
<td>0.80</td>
<td>0.84*</td>
</tr>
<tr>
<td>Overall Child Care</td>
<td>0.97</td>
<td>1.67</td>
<td>2</td>
<td>ns</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Daily Child Care</td>
<td>0.97</td>
<td>1.56</td>
<td>2</td>
<td>ns</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

*Selected for interpretation.
Table 5b.

Repeated Measures ANOVAs with Time as the Within-Subjects Factor.

<table>
<thead>
<tr>
<th>Tests of Within-Subjects (Time)</th>
<th>MS</th>
<th>df</th>
<th>F</th>
<th>Huynh-Feldt</th>
<th>Post-Hoc Contrasts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>p</td>
<td><em>E</em></td>
</tr>
<tr>
<td>Household Tasks</td>
<td>108.745</td>
<td>3</td>
<td>0.95</td>
<td>ns</td>
<td>-</td>
</tr>
<tr>
<td>Error (time)</td>
<td>114.522</td>
<td>141</td>
<td></td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>Family Decisions</td>
<td>97.894</td>
<td>3</td>
<td>0.939</td>
<td>ns</td>
<td>-</td>
</tr>
<tr>
<td>Error (time)</td>
<td>104.279</td>
<td>113.736</td>
<td></td>
<td>ns</td>
<td>-</td>
</tr>
<tr>
<td>Overall Child Care</td>
<td>594.805</td>
<td>2</td>
<td>2.385</td>
<td>ns</td>
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</tr>
<tr>
<td>Error (time)</td>
<td>249.392</td>
<td>100</td>
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<tr>
<td>Daily Child Care</td>
<td>136.793</td>
<td>2</td>
<td>1.179</td>
<td>ns</td>
<td>-</td>
</tr>
<tr>
<td>Error (time)</td>
<td>116.028</td>
<td>96</td>
<td></td>
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</table>
Table 6.

Descriptive Statistics of Aim 2 Study Variables (Discrepancy Score Composites and Dependent Variables).

<table>
<thead>
<tr>
<th>Variables</th>
<th>Child’s Gestational Age (in Weeks)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>32-36</td>
</tr>
<tr>
<td></td>
<td>n=79</td>
</tr>
<tr>
<td></td>
<td>M</td>
</tr>
<tr>
<td>Division of Labor (WDW Composites)</td>
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</tr>
<tr>
<td>Child Care</td>
<td>20.67</td>
</tr>
<tr>
<td></td>
<td>n=38</td>
</tr>
<tr>
<td>Relationship Satisfaction</td>
<td>123.34</td>
</tr>
<tr>
<td>Maternal Self-Efficacy</td>
<td>34.25</td>
</tr>
</tbody>
</table>
Table 7a.

*Intercorrelations Between Household Labor Discrepancy Composites and Maternal Functioning Variables.*

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household Labor Time 1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Household Labor Time 2</td>
<td>.640&quot;</td>
<td>1</td>
<td></td>
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</tr>
<tr>
<td>Household Labor Time 3</td>
<td>.361&quot;</td>
<td>.502&quot;</td>
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</tr>
<tr>
<td>Household Labor Time 4</td>
<td>.387&quot;</td>
<td>.367&quot;</td>
<td>.414&quot;</td>
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</tr>
<tr>
<td>Relationship Satisfaction Time 1</td>
<td>-.221</td>
<td>-.157</td>
<td>-.325</td>
<td>-.103</td>
</tr>
<tr>
<td>Relationship Satisfaction Time 2</td>
<td>-.333</td>
<td>-.384</td>
<td>-.587&quot;</td>
<td>-.460</td>
</tr>
<tr>
<td>Relationship Satisfaction Time 3</td>
<td>-.334</td>
<td>-.464</td>
<td>-.612&quot;</td>
<td>-.523</td>
</tr>
<tr>
<td>Relationship Satisfaction Time 4</td>
<td>-.147</td>
<td>-.114</td>
<td>-.319</td>
<td>-.143</td>
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<tr>
<td>Maternal S.E Time 2</td>
<td>-.368</td>
<td>-.348</td>
<td>-.175</td>
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<tr>
<td>Maternal S.E Time 3</td>
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<td>.105</td>
<td>.318</td>
<td>.495&quot;</td>
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<td>-.155</td>
<td>-.134</td>
<td>.323</td>
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<tr>
<td>Parenting Stress Time 2</td>
<td>.464</td>
<td>.268</td>
<td>.185</td>
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</tr>
<tr>
<td>Parenting Stress Time 3</td>
<td>.766&quot;</td>
<td>.713&quot;</td>
<td>.507</td>
<td>.618&quot;</td>
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<tr>
<td>Parenting Stress Time 4</td>
<td>.470</td>
<td>.438</td>
<td>.343</td>
<td>.558&quot;</td>
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</tbody>
</table>

**= p < .001; *= p < .05**
Table 7b.

*Intercorrelations Between Child Care Discrepancy Composites and Maternal Functioning Variables.*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Time</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Child Care Time 2</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child Care Time 3</td>
<td>.681&quot;</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Child Care Time 4</td>
<td>.486&quot;</td>
<td>.595&quot;</td>
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</tr>
<tr>
<td>Relationship Satisfaction Time 2</td>
<td>-.135</td>
<td>-.352</td>
<td>-.395</td>
</tr>
<tr>
<td>Relationship Satisfaction Time 3</td>
<td>-.219</td>
<td>-.269</td>
<td>-.420</td>
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<tr>
<td>Relationship Satisfaction Time 4</td>
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<td>.281</td>
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<td>Maternal S.E. Time 2</td>
<td>.022</td>
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<td>-.136</td>
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<tr>
<td>Maternal S.E. Time 3</td>
<td>-.140</td>
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<td>.341</td>
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<tr>
<td>Maternal S.E. Time 4</td>
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<td>Parenting Stress Time 2</td>
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<td>.342</td>
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<tr>
<td>Parenting Stress Time 3</td>
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<td>.610&quot;</td>
<td>.528</td>
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<tr>
<td>Parenting Stress Time 4</td>
<td>.108</td>
<td>.686&quot;</td>
<td>.568</td>
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</tbody>
</table>

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**"p < .001; *p < .05**
Table 8.

*Chi-square Values and Goodness-of-Fit Indices for Aim 2 Study Variables.*

<table>
<thead>
<tr>
<th>Model</th>
<th>( \chi^2 )</th>
<th>df</th>
<th>( p )</th>
<th>SRMR</th>
<th>NNFI</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a. HT RS Stability</td>
<td>120.15</td>
<td>21</td>
<td>( p&lt;0.01 )</td>
<td>0.24</td>
<td>0.66</td>
<td>0.74</td>
</tr>
<tr>
<td>1b. RS ( \rightarrow ) RS</td>
<td>103.68</td>
<td>18</td>
<td>( p&lt;0.01 )</td>
<td>0.23</td>
<td>0.65</td>
<td>0.78</td>
</tr>
<tr>
<td>1c. HT ( \rightarrow ) HT</td>
<td>96.93</td>
<td>18</td>
<td>( p&lt;0.01 )</td>
<td>0.14</td>
<td>0.68</td>
<td>0.79</td>
</tr>
<tr>
<td>1d. HT ( \rightarrow ) RS</td>
<td>80.66</td>
<td>15</td>
<td>( p&lt;0.01 )</td>
<td>0.12</td>
<td>0.68</td>
<td>0.83</td>
</tr>
<tr>
<td>1a and 1b: ( \Delta \chi^2 )</td>
<td>16.27</td>
<td>3</td>
<td>( p&lt;0.01 )</td>
<td>ns</td>
<td>0.05</td>
<td>0.96</td>
</tr>
<tr>
<td>1a and 1c: ( \Delta \chi^2 )</td>
<td>23.22</td>
<td>3</td>
<td>( p&lt;0.01 )</td>
<td>ns</td>
<td>0.05</td>
<td>1.03</td>
</tr>
<tr>
<td>1a and 1d: ( \Delta \chi^2 )</td>
<td>39.49</td>
<td>6</td>
<td>( p&lt;0.01 )</td>
<td>ns</td>
<td>0.05</td>
<td>1.03</td>
</tr>
<tr>
<td>2a. HT SE Stability</td>
<td>36.99</td>
<td>10</td>
<td>( p&lt;0.01 )</td>
<td>0.13</td>
<td>0.66</td>
<td>0.72</td>
</tr>
<tr>
<td>2b. HT ( \rightarrow ) SE</td>
<td>5.63</td>
<td>8</td>
<td>ns</td>
<td>0.05</td>
<td>1.07</td>
<td>1.00</td>
</tr>
<tr>
<td>2c. SE ( \rightarrow ) HT</td>
<td>9.24</td>
<td>8</td>
<td>ns</td>
<td>0.06</td>
<td>0.96</td>
<td>0.98</td>
</tr>
<tr>
<td>2d. HT ( \rightarrow ) SE</td>
<td>5.12</td>
<td>6</td>
<td>ns</td>
<td>0.05</td>
<td>1.03</td>
<td>1.00</td>
</tr>
<tr>
<td>2a and 2b: ( \Delta \chi^2 )</td>
<td>31.36</td>
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<td>( p&lt;0.01 )</td>
<td>ns</td>
<td>0.05</td>
<td>1.03</td>
</tr>
<tr>
<td>2a and 2c: ( \Delta \chi^2 )</td>
<td>27.74</td>
<td>2</td>
<td>( p&lt;0.01 )</td>
<td>ns</td>
<td>0.05</td>
<td>1.03</td>
</tr>
<tr>
<td>2a and 2d: ( \Delta \chi^2 )</td>
<td>31.87</td>
<td>4</td>
<td>( p&lt;0.01 )</td>
<td>ns</td>
<td>0.05</td>
<td>1.03</td>
</tr>
<tr>
<td>3a. HT PS Stability</td>
<td>109.47</td>
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<td>( p&lt;0.01 )</td>
<td>0.23</td>
<td>0.38</td>
<td>0.59</td>
</tr>
<tr>
<td>3b. HT ( \rightarrow ) PS</td>
<td>17.14</td>
<td>8</td>
<td>( p&lt;0.05 )</td>
<td>0.07</td>
<td>0.82</td>
<td>0.90</td>
</tr>
<tr>
<td>3c. PS ( \rightarrow ) HT</td>
<td>16.65</td>
<td>8</td>
<td>( p&lt;0.05 )</td>
<td>0.08</td>
<td>0.83</td>
<td>0.91</td>
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<tr>
<td>3d. HT ( \rightarrow ) PS</td>
<td>16.23</td>
<td>6</td>
<td>( p&lt;0.05 )</td>
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<tr>
<td>3a and 3b: ( \Delta \chi^2 )</td>
<td>103.84</td>
<td>2</td>
<td>( p&lt;0.01 )</td>
<td>ns</td>
<td>0.05</td>
<td>1.03</td>
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<tr>
<td>3a and 3c: ( \Delta \chi^2 )</td>
<td>92.82</td>
<td>2</td>
<td>( p&lt;0.01 )</td>
<td>ns</td>
<td>0.05</td>
<td>1.03</td>
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<tr>
<td>3a and 3d: ( \Delta \chi^2 )</td>
<td>93.24</td>
<td>4</td>
<td>( p&lt;0.01 )</td>
<td>ns</td>
<td>0.05</td>
<td>1.03</td>
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<tr>
<td>4a. CC RS Stability</td>
<td>32.80</td>
<td>10</td>
<td>( p&lt;0.01 )</td>
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<td>0.88</td>
<td>0.92</td>
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<tr>
<td>4b. CC ( \rightarrow ) RS</td>
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<td>( p&lt;0.01 )</td>
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<td>4c. RS ( \rightarrow ) CC</td>
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<td>4d. CC ( \rightarrow ) RS</td>
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<td>0.91</td>
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<tr>
<td>4a and 4b: ( \Delta \chi^2 )</td>
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<td>ns</td>
<td>0.05</td>
<td>1.03</td>
<td>1.00</td>
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<tr>
<td>4a and 4c: ( \Delta \chi^2 )</td>
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<td>( p&lt;0.05 )</td>
<td>ns</td>
<td>0.05</td>
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<tr>
<td>4a and 4d: ( \Delta \chi^2 )</td>
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<td>ns</td>
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<tr>
<td>5a. CC SE Stability</td>
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<td>( p&lt;0.01 )</td>
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<tr>
<td>5b. CC ( \rightarrow ) SE</td>
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<td>5c. SE ( \rightarrow ) CC</td>
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<td>( p&lt;0.01 )</td>
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<tr>
<td>5d. CC ( \rightarrow ) SE</td>
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<td>5a and 5b: ( \Delta \chi^2 )</td>
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<td>( p&lt;0.01 )</td>
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<td>6a. CCP Stability</td>
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<td>6b. CC ( \rightarrow ) PS</td>
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<td>( p&lt;0.01 )</td>
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<td>0.56</td>
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<td>6d. CC ( \rightarrow ) PS</td>
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<td>6a and 6d: ( \Delta \chi^2 )</td>
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<td>( p&lt;0.01 )</td>
<td>ns</td>
<td>0.05</td>
<td>1.03</td>
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</table>
Appendix B - Figures

*Figure i.* Structural Models of Household Labor and Maternal Functioning Variables.

*Figure ii.* Structural Models of Child Care and Maternal Functioning Variables.
Figure 1a. Stability Model of Household Labor and Relationship Satisfaction.

Figure 1b. Structural Model of Household Labor Predicting Relationship Satisfaction.

Figure 1c. Structural Model of Relationship Satisfaction Predicting Household Labor.
Figure 1a. Cross-Lagged Model of Household Labor and Relationship Satisfaction.

Figure 2a. Stability Model of Household Labor and Maternal Self-Efficacy.

Figure 2b. Structural Model of Household Labor Predicting Maternal Self-Efficacy.
Figure 2c. Structural Model of Maternal Self-Efficacy Predicting Household Labor

Figure 2d. Cross-Lagged Model of Household Labor and Maternal Self-Efficacy

Figure 3a. Stability Model of Household Labor and Parenting Stress
Figure 3b. Structural Model of Household Labor Predicting Parenting Stress.

- Time 2: Household Labor → Household Labor
  - .49** (p = .001)

- Time 3: Household Labor → Parenting Stress
  - .50** (p = .001)
  - ns

- Time 4: Parenting Stress → Household Labor
  - .47** (p = .001)

Figure 3c. Structural Model of Household Labor Predicting Parenting Stress.

- Time 2: Household Labor → Household Labor
  - .49** (p = .001)

- Time 3: Parenting Stress → Parenting Stress
  - .50** (p = .001)

- Time 4: Parenting Stress → Household Labor
  - .56** (p = .001)

Figure 3d. Cross-Lagged Model of Household Labor and Parenting Stress.

- Time 2: Household Labor → Parenting Stress
  - .49** (p = .001)

- Time 3: Parenting Stress → Household Labor
  - .50** (p = .001)

- Time 4: Parenting Stress → Household Labor
  - .56** (p = .001)
Figure 4a. Structural Model of Child Care and Relationship Satisfaction.

Time 2  
Child Care  
70** (.08)  
\( \beta = 8.63 \)  
\( n = 12.70 \)  
-56**  
Relationship Satisfaction  
82** (.06)  
\( \beta = 10.69 \)  
71** (.08)  
\( \beta = 8.96 \)  
Child Care  

Figure 4b. Structural Model of Child Care Predicting Relationship Satisfaction.

Time 2  
Child Care  
70** (.08)  
\( \beta = 8.63 \)  
-56**  
Relationship Satisfaction  
83** (.08)  
\( \beta = 10.69 \)  
72** (.08)  
\( \beta = 8.64 \)  
Relationship Satisfaction  

Figure 4c. Structural Model of Relationship Satisfaction Predicting Child Care.

Time 2  
Child Care  
63** (.10)  
\( \beta = 6.49 \)  
-56**  
Relationship Satisfaction  
93** (.07)  
\( \beta = 13.99 \)  
80** (.00)  
\( \beta = 10.06 \)  
Relationship Satisfaction  

Time 3  
Child Care  
61** (.09)  
\( \beta = 6.83 \)  
Relationship Satisfaction  
71** (.08)  
\( \beta = 8.96 \)  

Time 4  
Child Care  
58** (.00)  
\( \beta = 5.17 \)  
Relationship Satisfaction  
80** (.00)  
\( \beta = 10.06 \)  
Relationship Satisfaction
Figure 4d. Cross-Lagged Model of Child Care and Relationship Satisfaction.

Figure 5a. Stability Model of Household Labor and Maternal Self-Efficacy.

Figure 5b. Structural Model of Child Care Predicting Maternal Self-Efficacy.
Figure 5c. Structural Model of Maternal Self-Efficacy Predicting Child Care.

![Diagram](image1)

Figure 5d. Cross-Lagged Model of Child Care and Maternal Self-Efficacy.

![Diagram](image2)

Figure 6a. Stability Model of Child Care and Parenting Stress.

![Diagram](image3)
Figure 6b. Structural Model of Child Care Predicting Parenting Stress.

Figure 6c. Structural Model of Parenting Stress Predicting Child Care.

Figure 6d. Cross-Lagged Model of Child Care and Parenting Stress.