This study examined individual, parenting context, and child characteristics associated with mothers’ and fathers’ perceptions of coparenting after accounting for the prenatal marital relationship among first-time parents. Seventy-eight mothers and forty-nine fathers participated by completing a variety of questionnaires during the prenatal period and again at 6 and 16 months after the birth of their first child. Multiple hierarchical regressions showed that for mothers, positive and undermining coparenting was primarily a function of prenatal marital functioning. For fathers, the parenting context and child characteristics predicted positive and undermining coparenting even after accounting for prenatal marital functioning, which was also a significant predictor. How parents interact with one another in their marriage before the infant's birth may set the context for whether they are able to create a positive coparenting relationship in the future. Implications for future research and intervention efforts are discussed.
PREDICTORS OF COPARENTING QUALITY AMONG FIRST TIME PARENTS DURING TODDLERHOOD

by

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CHAPTER I

INTRODUCTION

Coparenting is a relatively new concept and can be conceptualized as how two individuals work together to raise a child (Talbot & McHale, 2004). To coparent, individuals do not have to be married; they only have to share the responsibility of raising the child. Researchers first investigated coparenting relationships in divorced families (Ahrons, 1981; Maccoby, Depner, & Mnookin, 1990). More recently, researchers have begun to examine coparenting in intact families and how a couple’s ability to work together as parents can affect parents and children (Belsky, Crnic, & Gable, 1995; Floyd, Gilliom, & Costigan, 1998; Leary & Katz, 2004; McBride & Rane, 1998; McConnell & Kerig, 2002; Schoppe, Mangelsdorf, & Frosch, 2001). Research indicates that when families exhibit hostile coparenting, there is more marital conflict, less father involvement, and children exhibit higher levels of externalizing behavior problems (McBride & Rane; McConnell & Kerig; Schoppe, et al.; Schoppe-Sullivan, Frosch, Mangelsdorf, & McHale, 2004). Given evidence that coparenting affects parents and children, it is surprising that relatively little is known about what predicts the quality of coparenting. Previous research has demonstrated concurrent associations between marriage and coparenting (Abidin & Brunner, 1995; McConnell & Kerig; McHale, 1995; Schoppe-Sullivan et al.); however, only two other studies (McHale et al., 2004; Van
Egeren, 2004) have examined how the depression, coparenting in family of origin) and the parenting context (i.e., discrepancies in childrearing beliefs, infant temperament) affects mothers’ and fathers’ perceptions of quality of marriage prior to the birth of children impacts coparenting. The purpose of this study was to examine the extent to which individual characteristics (i.e., self-esteem, coparenting at 16 months postpartumafter accounting for prenatal marital functioning in couples following the birth of their first child.

Coparenting Defined

Researchers have defined coparenting in a variety of ways. The initiation of coparenting is broadly defined with the birth of the first child in a family; although, some researchers suggest that expectant parents are able to develop mental representations of themselves as parents and coparents (Feinberg, 2003; McHale et al., 2004; Van Egeren & Hawkins, 2004). A number of researchers have defined coparenting differently and identified various characteristics of the coparenting relationship (Feinberg; McHale, 1995; Van Egeren, 2004; Van Egeren & Hawkins). Recently, Van Egeren and Hawkins proposed a framework of four distinct coparenting dimensions that are inclusive of all these disparate definitions and are the basis of the current study. The dimensions are coparenting solidarity, coparenting support, undermining coparenting, and shared parenting, each of which is described below and integrated with the dimensions other researchers have identified.

Coparenting solidarity. Coparenting solidarity is characterized by an affective, enduring, and unified relationship that grows between individuals raising a child. This
dimension is demonstrated by warm and positive emotions that are expressed between partners while interacting with or about the child. Even when one partner is absent, the present partner talks of the absent partner in a positive manner. Parents who experience coparenting solidarity often report that as they parent together they grow together and become closer (Van Egeren & Hawkins, 2004). This theme is reflected in Weissman and Cohen’s (1985) view that in a sound parenting alliance parents take pleasure in communicating with each other about their child. Solidarity is similar also to family warmth which is described by McHale et al. (2004) as high levels of warmth, positive affect, and positive connection while interacting with one another and the infant. In contrast, solidarity is the opposite of triangulation in which one parent attempts to form a coalition with their child in order to exclude the other parent (Margolin, Gordis, & John, 2001).

Coparenting support. Coparenting support is defined as different strategies that support each partner’s efforts to accomplish parenting goals or the parent’s perceptions of support in his/her efforts to accomplish parenting goals. The most critical feature of this dimension is that each partner reinforces the other’s parenting goals (Belsky et al., 1995; Van Egeren & Hawkins, 2004). In a triadic context, the parents’ cooperative interchanges build upon one another. For example, one parent may give toys to the other parent while they are playing with their child. Supportive coparents are able to identify the strategies that they utilize to support their partners (Van Egeren & Hawkins). The parenting alliance factor, communication and teamwork, or the idea that parents value each other’s role and respect each other’s opinions, is consistent with coparenting support (Konold & Abidin,
Similarly, McHale et al. (2004) refer to this dimension as coparenting cooperation, where parents accommodate and support one another’s interactions with their child. Some aspects of coparenting conflict, particularly disagreement, in which parents argue or disagree about child-rearing issues or household rules (Margolin et al., 2001) may be viewed as the negative end of this dimension.

*Undermining coparenting.* In undermining coparenting, partners employ strategies that prevent the other partner from accomplishing parenting goals. This component is evidenced by criticism and lack of respect for a partner’s parenting decisions (Van Egeren & Hawkins, 2004). Undermining actions can be overt (i.e. name calling or criticism aimed at the partner) or covert (one parent makes comments about the other to the child or excludes partner from a desired activity) (McHale, 1997; Van Egeren & Hawkins). Similarly, McHale et al. (2004) described competitive coparents as those who intruded upon one another’s interactions with the infant. Upon first read supportive and undermining coparenting seem to be the opposite ends of one dimension, but they can also be viewed as distinct from one another. For example, in one family, the mother tells her toddler that she cannot have any ice cream right now and the father supports her in saying “it’s too close to dinner for ice cream.” In another family, facing the same situation, the father does not do anything; therefore neither supporting nor undermining the mother. And yet, in another family, the father undermines the mother and gives the toddler ice cream. A parent can be unsupportive by taking no action whereas undermining consists of specific strategies to criticize and intrude upon the other parent’s decisions and goals.
Shared parenting. Shared parenting “is characterized by the degree to which one or the other parent is responsible for limit-setting and each partner’s sense of fairness about the way responsibilities are divided” (Van Egeren & Hawkins, 2004, p. 169) and may be conceptualized in two ways; balance of involvement and mutual involvement. Balance of involvement is the extent to which each partner interacts with the child relative to the other partner and is highly consistent with Feinberg’s (2003) notion of division of labor and Weissman and Cohen's (1985) view that the parenting alliance reflects both parents’ investment in the child. Mutual involvement is the degree to which both partners are engaged with the child at the same time (Van Egeren & Hawkins).

Although these four dimensions of coparenting are theoretically distinct, it is likely that they are related to one another. Therefore, couples who are high on solidarity, support, and shared parenting and are low on undermining are viewed as having high quality coparenting relationships. These dimensions of coparenting, each of which involves parenting issues, are part of what makes the coparenting relationship distinct from the marital relationship.

Coparenting and marital relationships differ in that the two relationships are based on different family subsystems (mother-father-child versus husband-wife); therefore, differences between the two would be expected. The unit of analysis in coparenting is a triad, whereas, in the marital relationship it is a dyad. Thus, these two relationships appear to exist on different levels within the family system (McHale & Fivaz-Depeursinge, 1999; Schoppe-Sullivan et al., 2004). Also, most often, the marital relationship predates the coparenting relationship and each follows its own trajectory of
development. In the coparenting relationship, partners develop their bond as parents and are able to continue this relationship even if the marriage dissolves (Schoppe-Sullivan et al.).

However, the coparenting relationship and the marital relationship are thought to be related. For example, couples who engage in a high degree of marital conflict in general may demonstrate more coparenting conflict and less support for one another, because of an underlying relationship style. The critical difference lies in the focus the coparenting relationship centers around raising the child; whereas the marital relationship focuses on a range of other issues (e.g., finances, emotional intimacy, etc.). Consistent with this view, measures of coparenting and marital functioning correlate significantly, but only mildly to moderately (correlations ranged from .01-.60 with an average of .20; Abidin & Brunner, 1995; McConnell & Kerig, 2002; McHale, 1995; McHale et al., 2004; Schoppe-Sullivan et al., 2004; Van Egeren, 2004). Additional research is needed to examine if the antecedents, processes, and effects on family life are similar or different for both relationships.
Two theoretical perspectives, family systems theory and determinants of parenting, are particularly relevant to the study of coparenting. Each is described below.

*Family Systems Theory*

Minuchin (1985) suggested six basic principles to family systems theory and Cox and Paley (2003) suggested that several of these principles could be applied to studying the family as an organized system. Several of these principles also have implications for the development of coparenting. First, a system (e.g., a family) is an organized whole, composed of subsystems that work interdependently: marital, parent-child, and coparent (mother-father-child) subsystems. These subsystems are separated by boundaries, but interactions within one subsystem may affect interactions within other subsystems. Interactions within the marital subsystem are distinct from those within the coparenting subsystem; however, there may be some spill-over from one system to the other. For example, a mother and father who have just had a fight about money and are mad at each other may be more likely to undermine each other’s parenting in the heat of the moment (e.g. “Here Tommy, play with this toy instead of Daddy, Mommy bought it just for you”).

An additional principle is that patterns in a system are circular rather than linear. Van Egeren and Hawkins (2004) state “the fact that coparenting is bidirectional is
obvious; each partner’s actions affect and are affected by the other’s” (p. 168). The same is true when thinking about the effect that coparenting has on children and the effect that children have on coparenting. Some parents may change their behaviors once they discover their child’s personality. For example, parents may want to do all of the childrearing mutually; however, if an infant is highly reactive, they may choose to divide up responsibilities and perform them separately in order to meet the needs of the infant. This supports the view that it is important to examine the effects of child characteristics, such as temperament, on coparenting.

Another principle is that evolution and change are inherent in open systems and are likely to occur during developmental transitions. As families attempt to adapt to transitions, multiple subsystems are affected and each subsystem affects one another causing new patterns to emerge within the family (Cox & Paley, 2003). Consistent with this view, Fivaz-Depeursinge and Corboz-Warnery (1999) reported that there was stability in triadic family patterns during infancy. However, McHale, Kuersten-Hogan, Lauretti, and Rasmussen (2000) suggest that when children enter toddlerhood, there is a disruption in family patterns, but by the end of toddlerhood they fall into place and become stable. The key issues shift from dependency to limit-setting and fathers are becoming more involved with their children and coparenting (McHale et al., 2002). These shifts in children’s needs and parenting patterns make toddlerhood an appealing time to study the coparenting relationship.
Determinants of Parenting

Belsky (1984) created a contextual model of the determinants of parenting (see Figure 1) in order to examine the developing person in context. It emphasizes that parenting is influenced by factors such as personality characteristics of the parent, the marital relationship, and child characteristics, all of which are embedded in a social context. It is likely that similar factors will affect coparenting as well because coparenting is in essence a part of parenting. Drawing from this perspective, I examined the following potential predictors of the quality of coparenting: quality of prenatal marital functioning, attributes that parents bring to the relationship (self-esteem, depression, coparenting in the family of origin, and childrearing beliefs), and infant temperament.
CHAPTER III
REVIEW OF THE LITERATURE

Quality of Marital Functioning

Quality of marital functioning can be conceptualized as how partners interact with one another and how satisfied they feel with the relationship. When parents report having low quality prenatal marital functioning, it is more likely that there will be low levels of solidarity, support, and shared coparenting, and higher levels undermining coparenting. This may be because negative patterns within the marital relationship are spilling over into the coparenting relationship as couples make the transition to parenthood or the patterns may reflect an underlying relationship style. Consistent with this view, positive marital quality has been found to be positively associated with coparenting harmony and negative marital quality was positively associated with coparenting negativity (McConnell & Kerig, 2002; Schoppe-Sullivan et al., 2004; Talbot & McHale, 2004), parenting alliance and marital satisfaction correlated positively (Abidin & Brunner, 1995). Similarly, McHale (1995) found that marital distress was linked to lower levels of warmth and cooperation between parents. All of these studies examined concurrent marital quality in relation to coparenting.

When examining prenatal marital quality, McHale et al. (2004) found that it positively predicted coparenting cooperation but not coparenting competition. Similarly, Van Egeren (2004) reported that prenatal marital quality was positively associated with
coparenting quality. Thus, the quality of a couple’s prenatal marital relationship may be expected to be directly linked to the quality of the future coparenting relationship. Both of these studies have only examined the extent to which prenatal marital quality has affected coparenting during early infancy. Research is needed to see if the influence of prenatal marital quality extends as children reach toddlerhood, a time when children are becoming more independent and parenting issues are changing. As noted above, the strength of these associations has been moderate; thus, other factors likely predict additional variation in coparenting quality.

**Parental Characteristics**

*Self-esteem.* Self-esteem has been conceptualized as the level of global regard that one has for the self as a person (Harter, 1993). Cooley (1902) and James (1892) point out that one possesses a global concept of self over and above more specific self-evaluations. Evidence suggests that self-esteem is a contributor to adults’ abilities to effectively relate to others and form supportive relationships (Katz & Joiner, 2002). Individuals with low self-esteem often feel that others think poorly of them and feel that their opinions are not worthwhile; therefore, they are less likely to interject their opinion on issues and may ultimately feel unsupported. The inability to form supportive relationships may hinder parents’ abilities to form a positive coparenting relationship with their partner. Consistent with this view, high self-esteem has been linked to positive parenting behavior in mothers and fathers (Belsky, Woodworth, Crnic, 1996; Hess, Papas, & Black, 2002; Volling & Belsky, 1992). Similarly, Lindsey, Caldera, and Colwell (2005) found that mothers with high self-esteem exhibited supportive coparenting behavior, whereas fathers who had
high self-esteem exhibited less intrusive coparenting. Taken together the data suggest that parents with high self-esteem will develop supportive and cooperative coparenting relationships.

Depressive Symptoms. Another parent characteristic that has been linked to the quality of the coparenting relationship is depression. Depression is a pervasive mental state characterized by feelings of sadness, despair and discouragement (Downey & Coyne, 1990). Depressed persons display two behavioral patterns: negativity/intrusiveness and withdrawal. These behavioral patterns likely affect close relationships such as the coparenting relationship (Downey & Coyne). Individuals with depression often have higher levels of parenting stress and display an excessive amount of negativity in their communications and in their appraisals of their spouses’ behaviors (Ruscher & Gotlib, 1988). These difficulties may hinder how emotionally available one partner is for the other and increase how critical one partner is of the other, which may affect the quality of the coparenting relationship. For example, if a depressed mother does not respond to her toddler’s bids for help, her partner may feel he bears the brunt of parenting and gets no support from her. When they talk about it, she likely becomes irritated with him for bringing up the subject. This coparenting relationship is characterized by low solidarity, support, and shared coparenting. Consistent with this view, when parents are less depressed there is more support between parents and a stronger parenting alliance (Brody, Flor, & Neubaum, 1998; Hughes, Gordon, & Gaertner, 2004).
**Family of origin.** Parents may be influenced also by the coparenting experiences they observed in their own family of origin. Social learning theory (Bandura, 1977) suggests that human thought, affect, and behavior can be influenced by observation and direct experience. There is substantial research examining the transmission of parenting behaviors across generations. Research indicates that individuals who experienced harsh parenting as children exhibited less nurturing and effective parenting behavior and used more aggressive parenting behavior with their children (Capaldi, Pears, Patterson, & Owen, 2003; Conger, Nell, Kim, & Scaramella, 2003). Similarly, there is also evidence suggesting intergenerational transmission of warm, sensitive, and supportive parenting (Belsky, Jaffee, Sligo, Woodward, & Silva, 2005; Chen & Kaplan, 2001), such that when parents experienced more positive and supportive parenting during their childhood, they provided similar care with their own children. The family of origin may also provide future parents with role models and direct training on how to effectively or ineffectively coparent. For example, if when growing up, children saw that one of their own parents criticized the other parent frequently or did not follow through with agreed upon punishments; they may not learn the skills of effectively communicating with or supporting the parenting partner. Consistent with this view, when parents reported that their own parents had a successful coparenting relationship, they were more likely to engage in positive coparenting (Stright & Bales, 2003; Van Egeren, 2003).

**Childrearing beliefs.** Childrearing beliefs are the different attitudes and beliefs that parents hold about childrearing (e.g., discipline, affection, expression of emotions). Coparents who have differing childrearing beliefs may exhibit more conflict and
undermining in their coparenting relationship because they disagree frequently about what is best for their child and/or what parenting behaviors best achieve specific childrearing goals. These differing beliefs may result in higher levels of undermining and lower levels of solidarity and support, resulting in a dysfunctional coparenting relationship. Research investigating the links between partners’ childrearing attitudes and quality of coparenting reveal mixed results in the few studies that have examined the relationship. Belsky et al. (1995) reported that discrepancies in childrearing attitudes were unrelated to coparenting at 15 months postpartum. However, they only measured parents’ attitudes about spoiling, discipline, and control; the discrepancies were small; and the children in this sample were all male. On the other hand, Lindsey et al. (2005) examined beliefs about nurturance and restrictiveness at 15 months postpartum and reported that having similar childrearing beliefs was associated with more supportive and less intrusive coparenting. Similarly, Van Egeren (2003) measured authoritarian, authoritative, and permissive beliefs and found that parents who had differences in childrearing attitudes grew dissatisfied with their coparenting relationship over time. After a while the differences may become more problematic or put more strain on the coparenting relationship. Given the mixed findings, it is important to investigate the association between discrepancies in childrearing beliefs and quality of coparenting further.

Child Characteristic

One of the main principles of family systems theory is that patterns in a system are circular (Minuchin, 1985), meaning that systems interact with one another through
feedback loops. As reviewed earlier, research shows that coparenting affects child outcomes (Schoppe et al., 2001; Schoppe-Sullivan et al., 2004), and it is important to know if children have an effect on coparenting. Children who are temperamentally reactive are characterized as displaying negative affect, being easily and intensely distressed, and being harder to soothe (Rothbart, 1981). Children who are temperamentally reactive may contribute to a stressful parenting environment, which may result in less adaptive coparenting. For example, if an infant is not easily soothed, one parent may get frustrated with the other for not being able to soothe the infant. However, under certain conditions parents may work as a team and demonstrate supportive coparenting in order to deal with a more reactive infant.

Given these conflicting hypotheses, it is not surprising that results from studies examining the links between child temperament and coparenting are mixed. Stright and Bales (2003) and McHale et al. (2004) reported that there are no direct associations between reports of infant temperament and quality of coparenting. However, Van Egeren (2004) reported that when fathers perceived their infants as reactive they had poorer coparenting relationships. Similarly, Lindsey et al. (2005) found that fathers demonstrate more intrusive coparenting when infants are reported to be temperamentally reactive. These discrepancies are not surprising given Crockenberg’s (1986) proposition that the links between temperament and parenting may be moderated by individual characteristics and social contexts. That is, parents may be less sensitive to their reactive infants when other risks are present (i.e., low quality marital functioning); when buffers are present (i.e., social support), parents may be more sensitive to their reactive infants (Crockenberg
& Leerkes, 2003). It is probable that the association between temperament and coparenting is equally complex; therefore, it is predicted that the association between infant temperament and coparenting will be moderated by quality of prenatal marital functioning. That is, parents with high quality prenatal marital functioning are more likely to report high quality coparenting when their children are temperamentally reactive; whereas, parents with low quality prenatal marital functioning are more likely to report low quality coparenting when their children are temperamentally reactive. Parents who have high marital quality and have infants who are more reactive may “pull together” to coparent their fussy children whereas when parents already have a low quality marriage they may already have a difficult time solving problems together. Consistent with this view, Schoppe-Sullivan, Mangelsdorf, Brown and Sokolowski (2007) found that when parents perceived their infants as fussy, but reported good marital quality, they did not engage in undermining behavior. They also found that when parents perceived their infants to be unadaptable and had poor marital quality, they exhibited more undermining coparenting than parents who perceived their infants to be unadaptable and exhibited good marital quality.
CHAPTER IV
SUMMARY OF STUDY AND RESEARCH QUESTIONS

In summary, the goal of the study is to identify factors that contribute to individual differences in the quality of coparenting during the early years of parenting. The research goal is to test the relations among characteristics of the marital relationship, parents, and children and the quality of coparenting. This study addresses a significant gap in the literature because little is known about what predicts coparenting in first time families independent of marital functioning. Relatively few researchers have examined predictors of coparenting and the joint effects of marital, parent, and child characteristics. A strength of the study is that marital functioning and self-esteem and depression were measured prenatally, before infant characteristics could affect them. Through understanding what affects coparenting prenatally, interventionists may be able to identify characteristics of the individual or couple that could be modified prenatally to help couples develop future positive coparenting relationships. Further, toddlerhood is an important time to examine coparenting, because fathers often become more involved relative to the infancy years (Lamb, Pleck, Charnov, & Levine, 1987). In addition, children are becoming more mobile and independent and issues of limit setting and discipline become more prominent. How parents choose to deal with these issues may influence how they work together in raising their child.
Hypotheses

Hypothesis 1. Mothers’ and fathers’ perceptions of quality of prenatal marital functioning will be positively associated with their perceptions of coparenting quality.

Hypothesis 2. Self-esteem and supportive coparenting in the family of origin will be positively correlated with coparenting quality; depression and discrepancies between mothers’ and fathers’ childrearing beliefs will be negatively correlated with coparenting quality. Each of these associations will be independent of quality of prenatal marital functioning.

Hypothesis 3. Infant temperament and quality of prenatal marital functioning will interact to predict coparenting quality. Infant temperament will correlate negatively with coparenting quality when quality of prenatal marital functioning is low, but not when it is high.
CHAPTER V

METHODOLOGY

Participants

One hundred and thirty-four primiparous mothers and 90 partners from a county surrounding a moderate sized city in the southeastern United States were recruited prenatally to participate in a longitudinal study about the antecedents of maternal sensitivity. Of these, 87 mothers and 49 fathers, approximately 65% and 56% of the prenatal sample, participated in the 16 month postnatal data collection. Demographics (age, education, income, and race) and prenatal measures (marital satisfaction and marital conflict problem solving strategies) were compared between those who dropped out of the study and those who remained in the study. Twenty-two comparisons were conducted and 5 significant differences emerged. Mothers who remained in the study were more likely to be White ($\chi^2(1) = 9.07; p<.01$), were older ($t(131) = 2.35; p<.05$), and had higher educational attainment ($t(132) = 2.56; p<.05$) than mothers who no longer participated in the study. Fathers who remained in the study had higher educational attainment ($t(88) = 2.13; p<.05$) and reported more avoidant conflict problem solving strategies ($t(88) = 2.38; p<.05$) than fathers who dropped out of the study. The most common reasons for not continuing the study were not having enough time and moving out of the state. Four mothers were single and 5 couples were separated or divorced by 16 months postpartum and were excluded from data analysis.
The final sample for this study included 78 primiparous mothers and 49 fathers. Mothers ranged in age from 19-40 (M=31), the majority (77%) had a college degree or higher, 14% had some college, and 9% had a high school education or less, and the majority (85%) were Caucasian, 9% were African American, and 6% were Multiracial or were from other ethnic groups. Fathers ranged in age from 23-45 (M=34), the majority (74%) had a college degree or higher, 22% had some college, and 4% had a high school education, and the majority (88%) were Caucasian, 10% were African American, and 2% were Multiracial. Mothers (M = 29.83, SD = 3.59) were significantly younger than fathers (M = 31.59, SD = 4.84), t(49) = -2.77; p<.01. Total annual family income ranged from $15,000 to $170,000 (M = $71,000). All of the couples were either married, living together, or dating. Fifty-six percent of the infants were male. All infants were full term and healthy.

The larger study focused on mothers, and partners were asked to participate, but they were not required nor were they given additional incentives. Therefore, a number of mothers who participated had partners that did not participate in the project. Demographics (age, education, income, and race) and all key study variables were compared between mothers whose partners did participate and mothers whose partners did not participate. Only one difference emerged; mothers whose partners participated in the study were significantly older (M = 29.84, SD = 3.59) than mothers whose partners did not participate (M = 27.83, SD = 4.72) in the study, t (76) = -2.12; p <.05.
Procedure

Parents were initially contacted through local birthing classes. Those who consented to be contacted by phone were called and given a more detailed description of the study to see if they would be interested in participating. Those who agreed to participate were sent prenatal questionnaires, including measures of quality of marital functioning, self-esteem, and depression, which were returned by mothers when they visited campus for a prenatal interview. Couples received $15 gift cards to Target for completing the interview and questionnaires. When infants were 6 months old, couples completed a set of questionnaires, including measures of infant temperament, which were returned when mothers visited campus with their infants for an observation of mother-infant interaction. Couples were given $20 gift cards to Target for completing the visit and questionnaires. Parents were re-contacted by phone when their toddlers were 15 months old and details of the follow-up study were explained. If they agreed to participate, they were sent a packet with consent forms and questionnaires including measures of coparenting in the family origin, ideas about parenting, and perceptions of current coparenting. Mothers were asked to return the questionnaires when they visited campus with their toddlers for an observation. Couples were given a $25 gift card for completing the questionnaires and the follow-up visit.

Measures

Quality of marital functioning. Quality of marital functioning was assessed prenatally using two different measures; the Conflict and Problem-Solving Scales (CPS) and an adaptation of the Aspects of Married Life Questionnaire. The conflict strategies
A subscale of the CPS (Kerig, 1996) was administered prenatally to assess the extent to which mothers and partners used particular strategies during marital conflicts. Mothers and partners rated the frequency with which they and their partners engaged in 39 different strategies over the past year using a scale from 0 (never) to 3 (often). The CPS has shown good convergent validity with the Conflict Tactics and the Dyadic Adjustment scales and good test-retest reliability over three months ($r = .63$; Kerig). Three subscales emerged from a previous factor analysis (Crockenberg & Leerkes, 2003), avoidance (10 items; e.g., change the subject; try to ignore problem/avoid talking about), aggression (19 items; e.g., threaten to end relationship; slap partner), and adaptive (10 items; e.g., compromise/meet half-way; find a solution that meets both our needs equally). Items were averaged and these subscale scores were created for reports of own strategy use and reports of partners’ strategy use. Cronbach’s alphas ranged from .66 to .90 for mothers and .68 to .91 for fathers.

An adaptation of the Aspects of Married Life Questionnaire (Huston, McHale, & Crouter, 1986; Proulx, Helms, & Payne, 2004) was administered prenatally to assess parents’ marital satisfaction. Mothers and partners rated their satisfaction on several domains of marriage using a 7-point scale, where 1 = extremely dissatisfied and 7 = extremely satisfied. Prenatally, there were 8 items. For example, parents were asked, “How satisfied are you with the way decisions in your marriage/partnership get made and the level of influence you have in those decisions?” Items were averaged, such that higher scores indicated high marital satisfaction. Cronbach’s alphas were .83 and .72 for mothers and fathers respectively.
Correlations among the different marital dimensions are illustrated in Table 1. Mothers’ reports of their own and their partner’s strategies and their overall marital satisfaction were highly correlated as was the case for fathers’ reports. Thus, the marital satisfaction and conflict resolution scores for self and partner were standardized and averaged together with avoidance and aggression reverse scored to create a quality of prenatal marital functioning variable in which high scores reflect high functioning and satisfaction (Cronbach’s alpha = .79 for mothers and .80 for fathers). The composite prenatal marital functioning variable was utilized to reduce the number of predictors relative to the sample size.

**Global Self-Esteem Scale.** The Global Self-Esteem Scale (Messer & Harter, 1986) is a six-item scale that measures one’s global sense of self-worth and was administered to parents prenatally. Respondents were instructed to rate which statement of a pair is most like them. For example, in response to the statement, “Some adults are dissatisfied with themselves, BUT other adults are satisfied with themselves”, respondents were instructed to check which half of the statement is really true of them or sort of true of them, which makes for a total of four possible responses to each statement (1=really untrue, 2=sort of untrue, 3=sort of true, 4=really true). The Global Self-Esteem Scale correlates positively with parents’ perceptions of spousal support (Harter, 1990). Items were averaged, such that higher scores reflected high global self-esteem. Cronbach alphas for mothers and fathers were .80 and .77 respectively.

**The Center for Epidemiologic Studies-Depression Scale (CES-D).** The CES-D (Radloff, 1977) is a 20-item measure used to assess depressive symptoms (e.g. I felt
lonely; I thought my life had been a failure) and was administered to parents prenatally. Parents indicated how often they felt a particular way during the previous week on a 4-point scale (ranging from never to always). The CES-D demonstrates high internal consistency, acceptable test-retest reliability, and adequate concurrent validity based upon clinical and self-report criteria (Radloff) and has correlated with parenting behavior in other studies (Crockenberg & Leerkes, 2003). A total score was derived by averaging the items. Higher scores indicated greater and more persistent depressive symptomatology. For mothers and fathers Cronbach’s alphas were .85 and .82 respectively.

*Family of origin experiences.* At 16 months postpartum, the 12-item Parents’ Parenting Scale (Stright & Bales, 2003) was administered to assess each partner’s recollection of his/her own parents’ coparenting relationship during childhood (during the first 16 years). Parents rated how much each item described their parents’ coparenting from 1 (never) to 5 (always) (e.g., My parents supported each other’s parenting. My parents used parenting techniques they knew the other did not want them to use.). The scale has shown good internal consistency reliability and correlated with observed supportive coparenting (Stright & Bales). Scores were calculated by reverse coding negative items and then averaging all items, such that higher scores indicated more positive coparenting relationships in the family of origin. Cronbach’s alphas were .94 for both mothers and fathers. Three fathers and four mothers did not complete the questionnaire, because they were raised by only one parent. These missing values were
substituted by each gender’s mean scores. Analyses were conducted with and without these cases included and the results did not differ.

*The Ideas About Parenting Questionnaire.* A 26-item reduced version of the Ideas About Parenting Questionnaire (Heming, Cowan, & Cowan, 1990) was used to assess the degree to which mothers and partners disagree on their child-rearing attitudes and beliefs at 16 months postpartum. For example, parents were instructed to indicate how much they agreed or disagreed with a statement such as “Children should be encouraged to express their anger as well as their more pleasant feelings” on a 9-point scale, ranging from very much disagree to very much agree. The reduced 21 item version is based on a confirmatory factor analysis by Van Egeren (2003), which yielded three scales corresponding to Baumrind’s (1967) model of authoritarian (7 items; e.g., Too much cuddling spoils a child.), authoritative (7 items; e.g., One of the joys of parenthood is encouraging a child’s natural curiosity.), and permissive parenting (7 items; e.g., I want to try to tell my child what to do as little as possible.). A scale reflecting traditional gender stereotypes was also added, consisting of 5 items (e.g., Fathers have a special knack for raising sons). Cronbach’s alphas were .66, .46, .57, and .55 for mothers’ and .51, .72, .60 and .69 for fathers’ endorsements of authoritarian, authoritative, permissive, and gender stereotypical child rearing philosophies respectively. Absolute value difference scores were then calculated for each item and averaged for each subscale. Higher difference scores indicate greater discrepancies in authoritarian, authoritative, permissive, and gender stereotypical child rearing philosophies. These variables are only available from couples with complete mother and father data (n = 49).
Infant temperament. Temperament was assessed at 6 months postpartum and at 16 months postpartum using different age related measures. The Infant Behavior Questionnaire-Revised (IBQ-R; Gartstein & Rothbart, 2003) was administered at 6 months postpartum to assess parents’ perceptions of their infant’s temperament. Parents were asked questions about specific behaviors that had occurred in response to specific events over the last 2 weeks. This kept parents focused on their infants’ actual recent behavior, and includes a number of items as indicators of each dimension of temperament to increase reliability.

Two subscales of the IBQ-R were used: distress to limitations (16 items) and distress and latency to approach sudden or novel stimuli (16 items). Mothers and partners were instructed to indicate how often behaviors occurred in the past week (e.g., before falling asleep at night during the last week, how often did the baby show no fussing or crying?) on a scale from 1 (never) to 7 (always). Items marked “does not apply” were not included in the averaged scores.

IBQ scores have good concurrent validity with home observation assessments of infant temperament in a sample of 6 month old infants, mean r =.40 (Rothbart & Goldsmith, 1985). The distress to limitations and distress to novelty subscales also correlate with the negative emotionality and approach-sociability subscales of the Revised Infant Temperament and the Infant Characteristics Questionnaire (rs =.61-.73; Goldsmith, Rieser-Danner, & Briggs, 1991). Subscale items were averaged such that, higher scores on the distress to limitations subscale indicate that the infant is easily frustrated; αs were .76 for mothers and .71 for fathers. Higher scores on the distress to
novelty subscale show that the infant is easily frightened; \( \alpha \)s were .87 for mothers and .88 for fathers.

The Toddler Behavior Assessment Questionnaire (TBAQ; Goldsmith, 1996) was administered at 16 months postpartum to assess parents’ perceptions of their toddler’s temperament. The social fearfulness (19 items) and anger proneness (28 items) subscales were used. Mothers and partners were asked to indicate how often their child exhibited specific behaviors in response to specific events during the last month (e.g., when you removed something your child should not have been playing with, how often did he/she scream?) on a scale from 1 (never) to 7 (always). Items marked “does not apply” were not included in the averaged scores. The social fearfulness and anger proneness subscales correlate with the overall difficulty subscale of the Infant Characteristics Questionnaire (\( rs = .43, .54; \) Goldsmith). Subscale items were averaged such that higher scores on the social fearfulness subscale indicate that the toddler is easily frightened; \( \alpha \)s were .88 for mothers and .63 for fathers. Higher scores on the anger proneness subscale show that the toddler is easily angered; \( \alpha \)s were .79 for mothers and .92 for fathers.

**Coparenting experiences.** Drawing from several questionnaires and an interview technique (Family Experiences Questionnaire; FEQ; Frank, Jacobson, Avery, 1988; Coparenting Questionnaire; Margolin et al., 2001; Coparenting Scale; McHale, 1997), the 68-item Coparenting Questionnaire (CQ) was developed for this study and given at 16 months postpartum. These other measures of coparenting needed to be adapted for several reasons. Many of the items of the FEQ (Frank et al.) are not applicable to coparenting (e.g., my marital relationship is not a perfect success); the Coparenting Scale
(McHale) is designed for families with preschoolers and does not tap into the coparenting solidarity dimension, and the Coparenting Questionnaire (Margolin et al.) was designed for children 5 years and older and would not be an adequate measure for parents of toddlers.

The CQ consisted of four subscales designed to tap the four dimensions of coparenting defined by Van Egeren and Hawkins (2004; see Appendix). Coparenting solidarity consisted of 15 items (i.e., Parenting has brought my partner and me closer together), coparenting support consisted of 19 items (i.e., My partner tells me I’m doing a good job as a parent), shared coparenting consisted of 17 items (i.e., My partner and I share parenting responsibilities fairly), and undermining coparenting consisted of 17 items (i.e., My partner says bad things about me in front of our child). Parents were instructed to rate how much they agree or disagree with each item using a scale from 1 (strongly disagree) to 4 (strongly agree). The appropriate items were reverse scored and items were averaged within each subscale. High levels of coparenting solidarity, supportive coparenting, shared parenting, and undermining coparenting were indicated by higher scores in each subscale. Cronbach’s alphas were .88, .93, .84, and .90 for mothers’ and .81, .89, .81, and .93 for fathers’ perceptions of coparenting solidarity, supportive coparenting, shared parenting, and undermining coparenting respectively.

At 16 months postpartum, the 20-item Parenting Alliance Inventory (PAI; Abidin & Brunner, 1995) was administered to assess mothers’ and fathers’ perceptions of their working relationship with their child’s other parent and to establish validity with the CQ. Parents were instructed to respond to items using a 5 point scale ranging from 1 (strongly
agree) to 5 (strongly disagree). The PAI is a frequently used instrument that has excellent internal reliability and good convergent validity with measures of marital satisfaction, parenting stress, parenting style, and child adjustment (Abidin & Brunner). Items were averaged to create a total score for the parenting alliance, such that higher scores indicate positive parenting relationships. Cronbach’s alphas were .95 for mothers and .93 for fathers respectively.

Descriptive statistics and intercorrelations for all predictor variables are presented in Tables 2 and 3.
CHAPTER VI
RESULTS

Analysis Plan
First, the structure and validity of the CQ were examined. Then, simple
 correlations were calculated to examine the interrelations among the predictors and
coparenting. Next, partial correlations between hypothesized predictors and coparenting
were calculated to test the hypothesis that these variables were correlated with
coparenting after the prenatal marital relationship was controlled. Finally, hierarchical
multiple regression was used to test the proposed interaction effect between infant
temperament and prenatal marital functioning and to test the independence of
hypothesized predictors of coparenting. For mothers, two sets of regressions were run: 1
set based on the full sample (N= 78) and the other based on the subset of mothers (n =
49) for whom childrearing belief discrepancy scores could be calculated.

Preliminary Analyses

Validity, Structure, and Descriptive Statistics for the Coparenting Questionnaire.
Preliminary analyses were conducted to examine the properties of the CQ and to
demonstrate its validity because it is a new measure. The PAI was used to validate the
use of the CQ (see Table 4). At 16 months postpartum the PAI was significantly
positively related to coparenting solidarity, coparenting support, and shared parenting,
and negatively related to undermining coparenting for both mothers and fathers demonstrating convergent validity.

Intercorrelations were examined between mothers’ and fathers’ reports of each coparenting dimension (see Table 5). Mothers and fathers appeared to perceive coparenting similarly, given their reports on the same dimensions were significantly positively correlated except for shared parenting, although the correlation was in the expected direction \( r = .22 \). This suggests some degree of inter-rater reliability given both partners rated the same relationship.

To test for mean differences between mothers’ and fathers’ perceptions of coparenting dimensions related samples t-tests were calculated (see Table 6). There were no significant mean differences between mothers’ and fathers’ perceptions of coparenting support and shared parenting. There were mean differences at trend levels between mothers’ and fathers’ perceptions of coparenting solidarity and undermining. Mothers perceived somewhat more coparenting solidarity than fathers and fathers perceived somewhat more undermining coparenting than mothers.

Much of the coparenting literature has primarily included supportive or positive and undermining or negative dimensions of coparenting (McConnell & Kerig, 2002; McHale, 1995; McHale, Kuersten, & Lauretti, 1996). Zero-order correlations among the four subscales were examined (see Table 5) to determine if this more parsimonious approach would also be warranted in this study. For mothers and fathers, the positive dimensions of coparenting, solidarity, support, and shared parenting, were highly correlated with one another (average \( r = .79 \) and \( .77 \)) and moderately negatively
correlated with undermining coparenting (average $r = -.65$ and -.63). Thus, solidarity, support, and shared parenting were averaged to form a positive coparenting dimension ($\alpha = .94$ for mothers and .96 for fathers) and undermining was retained as a separate dimension; these are the outcome variables in the regressions used to test the hypotheses.

Identifying covariates. Correlations were examined between the coparenting variables and respondent age, education, race, family income, child sex, and mothers’ work hours at 16 months postpartum. Demographics were unrelated to mothers’ reports of coparenting. For fathers, race (White vs. minority) correlated positively with undermining coparenting, $r (47) = .32$, $p < .05$ and correlated negatively with positive coparenting, $r (47) = -.25$, $p < .10$. These associations indicate that minority fathers rated undermining coparenting higher and positive coparenting lower than White fathers. Child sex correlated negatively with undermining coparenting, $r (47) = -.24$, $p < .10$, such that fathers of sons reported more undermining than fathers of daughters. Thus, race and child sex were used as covariates in regressions predicting fathers’ coparenting.

Zero-order and Partial Correlations Among Predictor and Outcome Variables

Zero-order and partial correlations were examined between study variables and positive and undermining coparenting as a preliminary test of hypotheses (Table 7). For mothers, prenatal marital functioning was positively related to positive coparenting and negatively related to undermining coparenting, consistent with the hypothesis. Prenatal self esteem correlated positively with positive coparenting and negatively with undermining coparenting and depression was negatively associated with positive coparenting and positively related to undermining coparenting. However, inconsistent
with the hypotheses, once prenatal marital functioning was taken into account these associations were no longer significant. Likewise, infant distress to novelty at 6 months postpartum was negatively associated with positive coparenting and positively related to undermining coparenting as a trend; although, inconsistent with the hypothesis, once prenatal marital functioning was taken into account, these associations were no longer significant. In a smaller sample (n = 49) consisting of only mothers who also had partners that participated, initially, differences in permissive parenting beliefs was not significantly correlated with positive or undermining coparenting; however, after controlling for quality of prenatal marital functioning, the difference in permissive parenting beliefs was negatively related to positive coparenting as a trend as predicted.

For fathers, as hypothesized, prenatal marital functioning was positively related to positive coparenting and negatively related to undermining coparenting. Initially and after accounting for prenatal marital functioning, race (White vs. minority) was negatively correlated with positive coparenting and positively correlated to undermining coparenting. Infant gender was negatively related to undermining coparenting as a trend when prenatal marital functioning was taken into account. Depressive symptomology was associated positively with undermining coparenting as a trend and coparenting in the family of origin was negatively related to undermining coparenting as a trend; however, inconsistent with the hypotheses, these associations became nonsignificant once prenatal marital functioning was taken into account. Toddler anger proneness at 16 months was associated with undermining coparenting as a trend and this association became significant once prenatal marital functioning was accounted for, as hypothesized.
Differences in authoritative parenting beliefs was negatively correlated with positive coparenting and positively correlated with undermining coparenting and these associations remained significant after accounting for prenatal marital functioning as predicted.

*Hierarchical Multiple Regression Models*

Hierarchical regression analyses were calculated to test the independence of effects from one another and to test the proposed interaction effect between temperament and quality of prenatal marital functioning to predict positive and undermining coparenting. Given the sample size, rather than entering all hypothesized variables, only those that were significant in the partial correlations or were needed to test the interaction effects were entered in the regression models.

Preliminary hierarchical regressions were used to identify significant interactions for potential inclusion in the final regressions for mothers and fathers. Eight separate regressions were run for mothers and fathers (2 coparenting outcomes—positive or undermining, and 4 different temperament indices—6 month distress to limits and distress to novelty, 16 month, social fearfulness and anger proneness). First, any covariates were entered, then the appropriate temperament variable and prenatal marital functioning were entered, and finally, the interaction between the temperament variable and prenatal marital functioning as predictors of positive and undermining coparenting. Contrary to prediction, none of the temperament by prenatal marital functioning interactions were significant in these preliminary analyses; therefore, none were included in the final regression analyses.
Factors Associated with Positive Coparenting

**Mothers.** For mothers, only prenatal marital functioning was a significant predictor of positive coparenting, $\beta = .51$, $p < .001$. Thus, consistent with the hypothesis, mothers with higher quality prenatal marital functioning reported more positive coparenting. This model accounted for 25% of the variability (adjusted $R^2$) in mothers’ perceptions of positive coparenting, $F(76) = 26.32$, $p < .001$.

**Subset of mothers.** A subset of mothers (n = 49) whose partners also participated was examined. Differences in permissive parenting beliefs was entered in the first block and quality of prenatal marital functioning was entered in the final block. As illustrated in Table 8, consistent with the hypothesis, differences in permissive parenting beliefs predicted positive coparenting (as a trend) after quality of prenatal marital functioning was accounted for. Mothers reported more positive coparenting when they had fewer differences with their partners regarding permissive parenting beliefs. Similar to the whole sample of mothers, quality of prenatal marital functioning was still the strongest predictor of positive coparenting. The overall model was statistically significant, $F(47) = 7.57$, $p < .001$ and accounted for 22% of the variance (adjusted $R^2$) in positive coparenting.

**Fathers.** For fathers, race was entered into the first block as a covariate. Anger proneness and differences in authoritative parenting beliefs, were entered in the second block. Finally, quality of prenatal marital functioning was added in the third block. As presented in Table 9, race (as a trend), anger proneness (as a trend), and differences in authoritative parenting beliefs retained their significance independent of one another and
after quality of prenatal marital functioning was taken into account. Fathers who were White, perceived their infants to be low on proneness to anger, had few differences in authoritative parenting beliefs in relation to their partner, and who reported higher quality prenatal marital functioning rated their coparenting relationships more positively. Similar to mothers, quality of prenatal marital functioning was a strong predictor fathers’ perceptions of positive coparenting; however, differences in authoritative parenting beliefs was the strongest predictor. The overall model was statistically significant, $F(44) = 4.94, p < .01$, and accounted for 25% of the variance (adjusted $R^2$) in positive coparenting.

Factors Associated with Undermining Coparenting

Mothers. For mothers, only prenatal marital functioning was a significant predictor of undermining coparenting, $\beta = -.48, p > .001$. As hypothesized, mothers with lower quality prenatal marital functioning reported more undermining coparenting. This model accounted for 22% of the variability (adjusted $R^2$) in mothers’ perceptions of undermining coparenting, $F(76) = 22.25, p < .001$. No additional analyses were needed for the subset of mothers, because differences in parenting beliefs were unrelated to undermining coparenting in the partial correlations.

Fathers. For fathers, race and infant gender were entered as covariates in the first block. Next, anger proneness and differences in authoritative parenting beliefs, were entered in the second block. Finally, quality of prenatal marital functioning was added in the third block. As presented in Table 10, race, infant gender, anger proneness, and differences in authoritative parenting beliefs were significant predictors of undermining
coparenting independent of one another and quality of prenatal marital functioning. Thus, fathers who were minority, had boys, perceived their toddlers to be high on proneness to anger, had differences in authoritative parenting beliefs in relation to their partner, and who reported lower quality prenatal marital functioning rated their coparenting relationships as more undermining. In contrast to mothers, race and toddler anger proneness were the strongest predictors for fathers’ perceptions of undermining coparenting. This model accounted for 36% of the variability (adjusted R\(^2\)) in fathers’ perceptions of undermining coparenting, \(F(43) = 6.48, p < .001\).
CHAPTER VII
DISCUSSION

The primary goal of this study was to identify factors that predict parents’ perceptions of the quality of their coparenting. Several antecedent and concurrent characteristics of mothers, fathers, and children were examined in relation to parents’ reports of positive and undermining coparenting approximately 16 months after the birth of their first child. For mothers, positive and undermining coparenting was primarily a function of prenatal marital functioning, which accounted for 25% and 22% of the variances respectively. Similarly, prenatal marital functioning was a predictor of fathers’ positive and undermining coparenting; however, parenting context and child characteristics were stronger predictors of positive and undermining coparenting for fathers. These models accounted for 25% and 36% of the variance for positive and undermining coparenting respectively. Importantly, this study is one of few that have examined the impact of the prenatal marital relationship and factors beyond that relationship on perceptions of coparenting for mothers and fathers. Also, it is the only study that has examined how the marital relationship and personality characteristics prior to the birth of the child affect perceptions of coparenting during toddlerhood.
Predictors of Coparenting

For mothers and fathers, quality of prenatal marital functioning was a significant predictor of positive and undermining coparenting. This finding is consistent with previous research, (McHale, 1995; McHale et al., 2004; Talbot & McHale, 2004; Van Egeren 2004) which has reported similar small to moderate associations between marital functioning and positive and undermining coparenting. Results of this study also provides support for the notion that disharmony in the marital subsystem can spill over into the parenting subsystem (Krishnakumar & Buehler, 2000) and affect the coparenting subsystem. This suggests that although the marital relationship and the coparenting relationship are often highly related and influential of one another, they are not interchangeable. Quality of prenatal marital functioning was a more robust predictor for mothers than fathers, which is inconsistent with previous research that demonstrated the marital and parenting subsystems were more highly correlated for fathers than for mothers (Thompson & Walker, 1989).

As mentioned above, this is one of few studies that has examined the link between prenatal marital quality and coparenting quality and the only one to examine how it affects coparenting during toddlerhood. The results given here are consistent with the two studies (McHale et al, 2004.; Van Egeren, 2004) that have examined the relation between the prenatal marital relationship and coparenting quality during infancy and the results also extend these studies by demonstrating that the prenatal marital relationship continues to relate to coparenting quality into toddlerhood. How parents interact with one another
before the infant’s birth may set the context for whether they are able to create a positive
coparenting relationship.

Contrary to prediction, other antecedent factors were not associated with positive
and undermining coparenting for mothers and fathers after controlling for prenatal
marital functioning. For mothers, self-esteem was positively associated and depression
was negatively associated with positive coparenting, and self-esteem was negatively
associated and depression was positively associated with undermining coparenting;
however, once the prenatal marital relationship was accounted for, these associations
disappeared. This was a surprising finding given the results of Lindsey et al. (2005) who
found a significant positive relationship between self-esteem and coparenting and Brody
et al. (1998) who found a significant negative relationship between depression and
coparenting, and the view that individual psychological attributes could influence
coparental functioning (Belsky, 1984). However, neither study accounted for marital
functioning, which illustrates the importance of considering predictors simultaneously
due to shared variance.

Although not hypothesized, inspection of the zero-order correlations suggests that
for mothers there may be an indirect association between self-esteem and positive and
undermining coparenting through the prenatal marital relationship. A similar indirect
relationship appears likely for the association between depression and positive and
undermining coparenting. That is, both self-esteem and depression correlated
significantly with marital functioning and with positive and undermining coparenting, but
after marital functioning was accounted for, the correlations between self-esteem and
depression with positive and undermining coparenting became non-significant meeting the criteria for mediation (Baron & Kenny, 1986). For mothers, these prenatal personality characteristics may impact the marital relationship, which in turn affects the future coparenting relationship.

Also contrary to the hypothesis, coparenting in the family of origin did not predict mothers’ and fathers’ positive and undermining coparenting. This is inconsistent with the results of Stright and Bales (2003) and Van Egeren (2003). Although the family of origin may provide future parents with role models and direct training of coparenting, other more recent coparenting models outside of the family may be more salient; such as friends with children or books or articles about how to handle the transition to parenthood. Future researchers could ask parents about whom or what has influenced their ideas about coparenting. These reports are also retrospective, which may affect how current parents remember how they were coparented.

For a subset of mothers, whose partners also participated, as hypothesized, when there were few differences with their partners regarding permissive parenting beliefs mothers reported more positive coparenting. Surprisingly, this effect was only significant once prenatal marital functioning was accounted for, suggesting a suppressor effect. Prenatal marital functioning served as a suppressor variable, thus after the association between prenatal marital functioning and positive coparenting was accounted for, the relationship between differences in permissive parenting and positive coparenting is enhanced (Cohen & Cohen, 1983). It appeared that when there was little discrepancy between mothers’ and fathers’ beliefs about permissive parenting, mothers were more
likely to perceive that they work well with their partner in raising their child. Similarly, differences in parenting beliefs was related to fathers’ perceived supportive and undermining coparenting; however, for fathers, it was differences in authoritative parenting beliefs that predicted coparenting. These results are consistent with Lindsey et al. (2005) and Van Egeren’s (2003) results and are in line with research suggesting that spouses were more satisfied with their marriages when they had more similar parental attitudes (Hendrick, 1981). When parents are more alike in their thoughts on parenting, they are more likely to support one another. During early infancy, parents are likely to agree that they should focus on fulfilling the needs of infants; however, as children reach toddlerhood issues such as setting limits and autonomy may become prevalent increasing the salience of attitudes about permissiveness and authoritative parenting and creating more opportunities for conflict regarding parenting, particularly discipline issues.

There were no direct effects of infant temperament on mothers’ reports of positive or undermining coparenting. These findings are consistent with Stright and Bales (2003), but inconsistent with the view that patterns in a system are circular rather than linear, suggesting that children’s temperament affects coparenting just as coparenting affects children. In contrast to mothers, for fathers, there was a direct effect of infant temperament on supportive and undermining coparenting, consistent with results of Lindsey et al. (2005) and Van Egeren (2004) and the idea that more challenging infants may represent a risk for early coparenting. Infants who are more prone to anger may contribute to a stressful parenting environment and affect how parents interact with one another while raising their child. Correlations between CQ items and fathers’ perceptions
of anger proneness at 16 months postpartum were examined to further explore this finding. In the CQ there are 17 items that make up the undermining dimension, of those, 4 (e.g., when my child and I are playing, my partner interrupts us and takes over) were positively correlated with fathers’ perceptions of anger proneness and all focused on the partner undermining the father. This finding may reflect that when fathers are trying to parent their reactive infants, mothers may be more likely to intervene if the child is not easily soothed; therefore, fathers may feel undermined in their parenting. Importantly, fathers do not describe their own behavior as undermining when they have reactive infants.

There were also no interaction effects between infant temperament and prenatal marital functioning to predict positive and undermining coparenting for mothers and fathers. This is inconsistent with the view that temperament may interact with other risks (e.g., low marital quality) to predict parenting (Crockenberg, 1986) and the results of Schoppe-Sullivan, et al. (2007) who found an interaction effect between infant temperament and marital quality in predicting undermining coparenting. However, with such a small sample, and given the non-experimental nature of the design, there may have not been enough power to detect significant interactions (McLelland & Judd, 1993).

Surprisingly, fathers’ race was a predictor for both positive and undermining coparenting although it was not hypothesized. White fathers reported more positive coparenting than minority fathers and minority fathers reported more undermining coparenting than White fathers. These results must be considered cautiously as different minority groups were categorized together because there were not enough participants in
each group to be examined individually, and as there were only 6 minority fathers, it seems unwise to make speculations regarding race in the absence of replication of this finding.

Although not hypothesized, infant gender correlated with undermining coparenting, such that fathers of boys were more likely to perceive undermining than fathers of girls. When t-tests were computed comparing fathers of boys and fathers of girls on fathers’ ratings of CQ items, of the 17 undermining items describing partner and self, 4 items were significantly different between boys and girls and all were about the partner, not the fathers themselves. Fathers of boys were more likely to report that their partners were exhibiting more undermining behaviors, than fathers of girls. Thus, much like temperament, fathers of sons perceived their wives to be undermining, but do not report engaging in undermining themselves. In previous research, it has been suggested that fathers are more involved with sons than daughters (Marsiglio, 1991). However, in this sample, fathers were not more involved with sons than daughters, but perhaps fathers desire more one on one time with their sons, and feel undermined when they do not get it.

Limitations and Directions for Future Research

The results of this study must be considered cautiously due to several limitations. First, the sample size was small, homogenous, and relatively high functioning limiting statistical power and the generalizability of the findings. Replication is needed in samples that are larger and more diverse. Second, attrition was higher among minority parents and parents who were younger, further limiting generalizability of the findings. Third, although the measure of coparenting used in this study was validated using the PAI, it is
new and has not been normed or demonstrated evidence of predictive or construct validity. More objective assessments, such as observed coparenting behavior, may have produced different patterns of associations. Finally, associations may be inflated due to shared method variance among self-report measures. Evidence suggests that alternative methods of assessing the coparenting relationship such as, asking parents open ended questions about how they work together to raise their child (McHale et al., 2004), may capture unique information about the process of coparenting. Nevertheless, the results of this study support pre-existing models of coparenting and lay the groundwork to understanding what predicts coparenting in maritally intact families. This is one of few studies that has examined the influence of the prenatal marital relationship and the results support and extend the work by McHale et al. and Van Egeren (2004), who both examined the influence of the prenatal marital relationship on coparenting during infancy.

Possibilities for future research include examining other predictors of positive and undermining coparenting. Families reside in broader ecological contexts, and other factors external to the family such as parent work hours, work conditions, and social support may affect couples’ positive and undermining coparenting. A strength of this study is that it examined self-esteem, depression, and marital functioning prenatally; however, it would also have been interesting to have asked parents about their expectations about future coparenting. Some researchers suggest that expectant parents are able to develop mental representations of themselves as coparents (Feinberg, 2003; Van Egeren & Hawkins, 2004) and prior research has indicated that prebirth family expectations can help shape subsequent family dynamics (Belsky, Lang & Huston, 1986;
Grote & Clark, 2001; McHale & Rotman, 2007); however, little is known about how prenatal expectations about future coparenting trigger different coparenting patterns.

In this study, differences in parenting beliefs were examined at 16 months postpartum it would be interesting for future research to examine how differences in prenatal parenting beliefs influence the coparenting relationship over time. Prior research has demonstrated that parents who had differences in childrearing attitudes prenatally grew dissatisfied with their coparenting relationship over the first 6 months of parenthood (Van Egeren, 2003). However, little is known if these differences in attitudes impact parents past infancy and if there are changes in parenting beliefs over the transition to parenthood and how those changes may result in different coparenting patterns.

Individual characteristics (self-esteem and depression) were not related to coparenting independent of prenatal marital functioning; however, other characteristics that were not examined in this study may influence coparenting. One such characteristic is locus of control, an aspect of personality. Mondell and Tyler (1981) found that when parents had an internal locus of control and an active coping style, they were more likely to exhibit high levels of warmth and acceptance and low levels of disapproval with their child. The process may work similarly with coparenting, such that mothers or fathers who have an internal locus of control may be more likely to talk about parenting issues and work together with their partner.

For fathers race predicted supportive and undermining coparenting; however, because of the small subsample, further examination was not possible. Future research could examine if the same differences in coparenting quality exist in a more diverse
sample, if the process explaining the differences can be identified, and test race as a moderator between different predictor variables and coparenting quality. These efforts should be made in samples that are larger and more diverse with respect to race, culture, and risk factors than the current sample.

Implications for Practice

The results of this study offer some points of guidance for practitioners targeting expectant couples or for screening for interventions. First, the results emphasize the importance of intervening with mothers and fathers as they are both a part of the future coparenting relationship. Existing research suggests that the transition to parenthood is an optimal time for intervention as expectant and new parents are open to change (Cowan & Cowan, 2000; Duvall, 1977; Elliot et al., 2000). The idea that an infant brings couples closer together is not supported by this study. If couples were already having trouble in their marital relationship, it appears that having a child does not trigger them to start working together more, in fact, the opposite appears true, where parents may feel less supported and more undermined in their coparenting. This is consistent with the results of Van Egeren (2004) who found that high marital satisfaction prenatally and at 6 months postpartum positively affected coparenting quality.

Interventionists could screen expectant couples for characteristics that could influence future coparenting quality, such as the quality of the prenatal marital relationship or differences in parenting beliefs. Although this study did not examine differences in parenting beliefs prenatally, it did find that differences in parenting beliefs for mothers and fathers did predict perceptions of lower levels of support for mothers and
fathers and higher levels of undermining for fathers. Perhaps by discussing and compromising these beliefs prenatally, couples could be at less risk of developing lower quality coparenting.
REFERENCES


Belsky, J., Lang, M., & Huston, T. (1986). Sex typing and division of labor as


Assessment, 8, 47-65.


reports of coparenting and observed coparenting behavior during the toddler period. *Journal of Family Psychology, 14*, 220-236.


Appendix A

Tables

Table 1. Intercorrelations of Marital Variables

<table>
<thead>
<tr>
<th>Marital Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Marital Satisfaction</td>
<td>--</td>
<td>.27**</td>
<td>-.33**</td>
<td>-.38**</td>
<td>.56***</td>
<td>-.44**</td>
<td>-.58**</td>
</tr>
<tr>
<td>2. Adaptive Self</td>
<td>.29**</td>
<td>--</td>
<td>-.26**</td>
<td>-.29**</td>
<td>.47***</td>
<td>-.24**</td>
<td>-.36**</td>
</tr>
<tr>
<td>3. Avoidant Self</td>
<td>-.49**</td>
<td>-.42**</td>
<td>--</td>
<td>.22**</td>
<td>-.15</td>
<td>.09</td>
<td>.39**</td>
</tr>
<tr>
<td>4. Aggressive Self</td>
<td>-.36**</td>
<td>-.51**</td>
<td>.37**</td>
<td>--</td>
<td>-.43**</td>
<td>.52**</td>
<td>.77**</td>
</tr>
<tr>
<td>5. Adaptive Partner</td>
<td>.59**</td>
<td>.53**</td>
<td>-.41**</td>
<td>-.42**</td>
<td>--</td>
<td>.51**</td>
<td>-.50**</td>
</tr>
<tr>
<td>6. Avoidant Partner</td>
<td>-.27*</td>
<td>-.32**</td>
<td>-.05</td>
<td>.31**</td>
<td>-.26*</td>
<td>--</td>
<td>.51**</td>
</tr>
<tr>
<td>7. Aggressive Partner</td>
<td>-.43**</td>
<td>-.21*</td>
<td>.29**</td>
<td>.56**</td>
<td>-.59**</td>
<td>.13</td>
<td>--</td>
</tr>
</tbody>
</table>

Note: Correlations among mother variables appear above the diagonal (N = 78); correlations among father variables appear below the diagonal (N = 49). *p < .10, *p < .05, **p < .01.
Table 2. Descriptive Statistics of Predictor Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Prenatal Marital Functioning</td>
<td>.00</td>
<td>.66</td>
<td>.00</td>
<td>.67</td>
</tr>
<tr>
<td>2. Prenatal Self-Esteem</td>
<td>3.36</td>
<td>.58</td>
<td>3.29</td>
<td>.57</td>
</tr>
<tr>
<td>3. Prenatal Depression</td>
<td>1.57</td>
<td>.40</td>
<td>1.43</td>
<td>.34</td>
</tr>
<tr>
<td>4. Distress to Limits 6mos</td>
<td>3.22</td>
<td>.73</td>
<td>3.29</td>
<td>.51</td>
</tr>
<tr>
<td>5. Distress to Novelty 6mos</td>
<td>2.19</td>
<td>.73</td>
<td>2.35</td>
<td>.74</td>
</tr>
<tr>
<td>6. Anger Proneness 16mos</td>
<td>3.53</td>
<td>.60</td>
<td>3.53</td>
<td>.58</td>
</tr>
<tr>
<td>7. Social Fear 16mos</td>
<td>3.83</td>
<td>.90</td>
<td>3.79</td>
<td>.80</td>
</tr>
<tr>
<td>8. Coparenting in Family of Origin</td>
<td>3.95</td>
<td>.88</td>
<td>3.86</td>
<td>.74</td>
</tr>
<tr>
<td>9. Authoritative Difference</td>
<td>.51</td>
<td>.86</td>
<td>.51</td>
<td>.86</td>
</tr>
<tr>
<td>10. Authoritarian Difference</td>
<td>-.38</td>
<td>.97</td>
<td>-.38</td>
<td>.97</td>
</tr>
<tr>
<td>11. Permissive Difference</td>
<td>-.01</td>
<td>1.85</td>
<td>-.01</td>
<td>1.85</td>
</tr>
<tr>
<td>12. Gender Stereotype Difference</td>
<td>-.81</td>
<td>1.36</td>
<td>-.81</td>
<td>1.36</td>
</tr>
</tbody>
</table>

Note: N=78 for mothers and N = 49 for fathers; variables 9-12 only available for subset of mothers whose partners also participated, N = 49.
Table 3. Intercorrelations of Predictor Variables

<table>
<thead>
<tr>
<th>Marital Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Prenatal Marital</td>
<td>--</td>
<td>.31**</td>
<td>-.51**</td>
<td>-.08</td>
<td>-.23*</td>
<td>-13</td>
<td>-.05</td>
<td>.02</td>
<td>-.14</td>
<td>.07</td>
<td>.09</td>
<td>.15</td>
</tr>
<tr>
<td>Functioning</td>
<td>.23</td>
<td>--</td>
<td>-.42**</td>
<td>.01</td>
<td>-.05</td>
<td>-.18</td>
<td>-.06</td>
<td>-.05</td>
<td>.02</td>
<td>.03</td>
<td>-.18</td>
<td>.09</td>
</tr>
<tr>
<td>2. Prenatal Self-Esteem</td>
<td>-.20</td>
<td>-.53**</td>
<td>--</td>
<td>-.02</td>
<td>.24*</td>
<td>.00</td>
<td>.10</td>
<td>-.06</td>
<td>.07</td>
<td>.08</td>
<td>.15</td>
<td>-.01</td>
</tr>
<tr>
<td>3. Prenatal Depression</td>
<td>.08</td>
<td>-.15</td>
<td>.13</td>
<td>--</td>
<td>.22*</td>
<td>.27*</td>
<td>.15</td>
<td>.00</td>
<td>-.09</td>
<td>.11</td>
<td>-.02</td>
<td>-.32*</td>
</tr>
<tr>
<td>4. Distress to Limits 6mos</td>
<td>-.01</td>
<td>-.20</td>
<td>.27*</td>
<td>.21</td>
<td>--</td>
<td>.07</td>
<td>.25*</td>
<td>-.11</td>
<td>-.28</td>
<td>.12</td>
<td>-.15</td>
<td>.03</td>
</tr>
<tr>
<td>5. Distress to Novelty 6mos</td>
<td>.10</td>
<td>.04</td>
<td>.15</td>
<td>-.16</td>
<td>.02</td>
<td>--</td>
<td>.02</td>
<td>-.06</td>
<td>-.05</td>
<td>.16</td>
<td>-.13</td>
<td>.07</td>
</tr>
<tr>
<td>6. Anger Proneness 16mos</td>
<td>-.12</td>
<td>-.24*</td>
<td>.25*</td>
<td>.02</td>
<td>.23</td>
<td>.29*</td>
<td>--</td>
<td>-.12</td>
<td>-.19</td>
<td>-.06</td>
<td>-.07</td>
<td>.09</td>
</tr>
<tr>
<td>7. Social Fears 16mos</td>
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<td>.20</td>
<td>-.09</td>
<td>-.12</td>
<td>-.14</td>
<td>-.02</td>
<td>--</td>
<td>-.05</td>
<td>-.12</td>
<td>.10</td>
<td>.03</td>
</tr>
<tr>
<td>8. Coparenting in Family of Origin</td>
<td>-.19</td>
<td>.05</td>
<td>-.11</td>
<td>-.22</td>
<td>.11</td>
<td>-.24*</td>
<td>-.14</td>
<td>-.24*</td>
<td>--</td>
<td>-.03</td>
<td>.14</td>
<td>-.24*</td>
</tr>
<tr>
<td>9. Authoritative Difference</td>
<td>.21</td>
<td>.11</td>
<td>.08</td>
<td>-.13</td>
<td>-.02</td>
<td>-.32*</td>
<td>-.04</td>
<td>-.13</td>
<td>-.03</td>
<td>--</td>
<td>.12</td>
<td>.25*</td>
</tr>
<tr>
<td>10. Authoritarian Difference</td>
<td>.16</td>
<td>-.16</td>
<td>.12</td>
<td>.14</td>
<td>-.09</td>
<td>-.12</td>
<td>-.10</td>
<td>.14</td>
<td>.12</td>
<td>--</td>
<td>--</td>
<td>.02</td>
</tr>
<tr>
<td>11. Permissive Difference</td>
<td>.25*</td>
<td>-.14</td>
<td>.09</td>
<td>.11</td>
<td>-.00</td>
<td>.03</td>
<td>.01</td>
<td>-.12</td>
<td>-.24*</td>
<td>.25*</td>
<td>.02</td>
<td>--</td>
</tr>
</tbody>
</table>

Note: Correlations among mother variables appear above the diagonal (N = 78), variables 9-12 only available for subset of mothers (N = 49); correlations among father variables appear below the diagonal (N = 49). *p < .10, **p < .05, ***p < .01.
Table 4. Validity of the CQ Dimensions through examining Parenting Alliance Inventory Correlations

<table>
<thead>
<tr>
<th>Coparenting Dimensions</th>
<th>PAI Total 16mos</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coparenting Solidarity</td>
<td>.67**</td>
</tr>
<tr>
<td>Coparenting Support</td>
<td>.72**</td>
</tr>
<tr>
<td>Shared Parenting</td>
<td>.64**</td>
</tr>
<tr>
<td>Positive Coparenting</td>
<td>.73**</td>
</tr>
<tr>
<td>Undermining Coparenting</td>
<td>-.42**</td>
</tr>
<tr>
<td>Coparenting Solidarity</td>
<td>.74**</td>
</tr>
<tr>
<td>Coparenting Support</td>
<td>.70**</td>
</tr>
<tr>
<td>Shared Parenting</td>
<td>.72**</td>
</tr>
<tr>
<td>Positive Coparenting</td>
<td>.80**</td>
</tr>
<tr>
<td>Undermining Coparenting</td>
<td>-.71**</td>
</tr>
</tbody>
</table>

Mother

Father

Note: N = 78 for mothers and N = 49 for fathers; \(^{1} p<.10, {^{*}} p<.05, {^{**}} p<.01\)
Table 5. Intercorrelations of Mothers’ and Fathers’ Reports of Coparenting Dimensions

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Coparenting Solidarity</td>
<td>.41**</td>
<td>.83**</td>
<td>.80**</td>
<td>.94**</td>
<td>-.69**</td>
</tr>
<tr>
<td>2. Coparenting Support</td>
<td>.80**</td>
<td>.44**</td>
<td>.75**</td>
<td>.93**</td>
<td>-.66**</td>
</tr>
<tr>
<td>3. Shared Parenting</td>
<td>.74**</td>
<td>.78**</td>
<td>.22</td>
<td>.91**</td>
<td>-.62**</td>
</tr>
<tr>
<td>4. Positive Coparenting</td>
<td>.94**</td>
<td>.89**</td>
<td>.86**</td>
<td>.41**</td>
<td>-.71**</td>
</tr>
<tr>
<td>5. Undermining Coparenting</td>
<td>-.67**</td>
<td>-.57**</td>
<td>-.65**</td>
<td>-.69**</td>
<td>.31*</td>
</tr>
</tbody>
</table>

Note: Correlations among mother variables appear above the bold diagonal (N = 78); correlations among father variables appear below the diagonal (N = 49); correlations between mothers and fathers appear in bold (N = 49). *p < .10, **p < .05. ***p < .01.
Table 6. Descriptive Statistics and Paired Sample t-tests Comparing Mother and Father Coparenting Scores

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mothers N = 78 (49)</th>
<th>Fathers N = 49</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Coparenting Solidarity</td>
<td>3.33 (3.32)</td>
<td>.33 (.34)</td>
</tr>
<tr>
<td>Coparenting Support</td>
<td>3.29 (3.28)</td>
<td>.38 (.39)</td>
</tr>
<tr>
<td>Shared Parenting</td>
<td>3.28 (3.26)</td>
<td>.36 (.38)</td>
</tr>
<tr>
<td>Undermining Coparenting</td>
<td>1.59 (1.61)</td>
<td>.38 (.40)</td>
</tr>
</tbody>
</table>

Note: Means for the subset of mothers whose partners provided data appear in parens. $^t$ is the paired sample t calculated for couples with complete mother and father data, df = 48. $^p < .10$, $^*p < .05$, $^{**}p < .01$
Table 7. Zero-Order and Partial Correlations Controlling for Prenatal Marital Functioning Between Predictor Variables and Positive and Negative Coparenting

<table>
<thead>
<tr>
<th>Predictor Variables</th>
<th>Mother Positive Coparenting</th>
<th>Mother Undermining Coparenting</th>
<th>Father Positive Coparenting</th>
<th>Father Undermining Coparenting</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Zero-Order Correlations</td>
<td>Partial Correlations</td>
<td>Zero-Order Correlations</td>
<td>Partial Correlations</td>
</tr>
<tr>
<td>1. Race</td>
<td>-.09</td>
<td>-.14</td>
<td>.12</td>
<td>.16</td>
</tr>
<tr>
<td>2. Child Gender</td>
<td>-.06</td>
<td>-.03</td>
<td>-.03</td>
<td>.07</td>
</tr>
<tr>
<td>3. Prenatal Marital Functioning</td>
<td>.51**</td>
<td>-.48**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Prenatal Self Esteem</td>
<td>.26*</td>
<td>.13</td>
<td>-.20*</td>
<td>-.07</td>
</tr>
<tr>
<td>5. Prenatal Depression</td>
<td>-.26*</td>
<td>-.03</td>
<td>.26*</td>
<td>.03</td>
</tr>
<tr>
<td>6. Distress to Limits 6mos</td>
<td>-.13</td>
<td>-.12</td>
<td>.13</td>
<td>.11</td>
</tr>
<tr>
<td>7. Distress to Novelty 6mos</td>
<td>-.24*</td>
<td>-.15</td>
<td>.19</td>
<td>.11</td>
</tr>
<tr>
<td>8. Authoritative Difference</td>
<td>-.11</td>
<td>-.07</td>
<td>.18</td>
<td>.15</td>
</tr>
<tr>
<td>9. Authoritarian Difference</td>
<td>-.01</td>
<td>-.05</td>
<td>-.18</td>
<td>-.19</td>
</tr>
<tr>
<td>10. Authoritative Difference</td>
<td>-.18</td>
<td>-.27**</td>
<td>.13</td>
<td>.23</td>
</tr>
<tr>
<td>11. Feminine Difference</td>
<td>.07</td>
<td>.10</td>
<td>.20</td>
<td>-.13</td>
</tr>
<tr>
<td>12. Feminine Stereotype Difference</td>
<td>.07</td>
<td>.10</td>
<td>.20</td>
<td>-.13</td>
</tr>
</tbody>
</table>

Note: N = 78 for Mothers and N = 49 for Fathers, Variables 11-14, N = 49 for Mothers and Fathers. *p < .10, **p < .05, ***p < .01
Table 8. Hierarchical Multiple Regression Predicting Positive Coparenting for Subset of Mothers

<table>
<thead>
<tr>
<th>Predictors in each block</th>
<th>Block 1</th>
<th>Block 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Differences in permissive parenting beliefs</td>
<td>-.18</td>
<td>-.22†</td>
</tr>
<tr>
<td>2. Quality of prenatal marital functioning</td>
<td>.46**</td>
<td></td>
</tr>
<tr>
<td>Adjusted $R^2\Delta$ for each block</td>
<td>.01</td>
<td>.20**</td>
</tr>
<tr>
<td>Total model adjusted $R^2$</td>
<td></td>
<td>.22**</td>
</tr>
</tbody>
</table>

Note: N = 49 for mothers who also had a partner participating. †p < .10, *p < .05, **p < .01.
Table 9. Hierarchical Multiple Regression Predicting Positive Coparenting for Fathers

<table>
<thead>
<tr>
<th>Predictors in each block</th>
<th>Block 1</th>
<th>Block 2</th>
<th>Block 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Race</td>
<td>-.25&lt;sup&gt;t&lt;/sup&gt;</td>
<td>-.20</td>
<td>-.22&lt;sup&gt;t&lt;/sup&gt;</td>
</tr>
<tr>
<td>2. Anger Proneness 16mos</td>
<td>-.23&lt;sup&gt;t&lt;/sup&gt;</td>
<td>-.25&lt;sup&gt;t&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Differences in authoritative parenting beliefs</td>
<td>-.41&lt;sup&gt;**&lt;/sup&gt;</td>
<td>-.36&lt;sup&gt;**&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>3. Quality of prenatal marital functioning</td>
<td></td>
<td></td>
<td>.28&lt;sup&gt;*&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>Adjusted R&lt;sup&gt;2&lt;/sup&gt; for each block</strong></td>
<td>.04&lt;sup&gt;t&lt;/sup&gt;</td>
<td>.14&lt;sup&gt;**&lt;/sup&gt;</td>
<td>.06&lt;sup&gt;*&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>Total model adjusted R&lt;sup&gt;2</strong></td>
<td></td>
<td></td>
<td>.25&lt;sup&gt;**&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

Note: N = 49. <sup>t</sup>p < .10, <sup>*</sup>p < .05, <sup>**</sup>p < .01.
Table 10. Hierarchical Multiple Regression Predicting Undermining Coparenting for Fathers

<table>
<thead>
<tr>
<th>Predictors in each block</th>
<th>Block 1</th>
<th>Block 2</th>
<th>Block 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Race</td>
<td>.39**</td>
<td>.32*</td>
<td>.34**</td>
</tr>
<tr>
<td>Child gender</td>
<td>-.33*</td>
<td>-.28*</td>
<td>-.28*</td>
</tr>
<tr>
<td>2. Anger Proneness 16mos</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Differences in authoritative parenting beliefs</td>
<td>.32*</td>
<td>.27*</td>
<td></td>
</tr>
<tr>
<td>3. Quality of prenatal marital functioning</td>
<td></td>
<td></td>
<td>-.29*</td>
</tr>
</tbody>
</table>

Adjusted $R^{2}$ for each block  

<table>
<thead>
<tr>
<th>Adjusted $R^{2}$ for each block</th>
<th>Block 1</th>
<th>Block 2</th>
<th>Block 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>.17**</td>
<td>.12*</td>
<td>.07*</td>
<td></td>
</tr>
</tbody>
</table>

Total model adjusted $R^{2}$  

| Total model adjusted $R^{2}$ | .36** |

Note: N = 49.  
$^i p < .10$, $^* p < .05$, $^{**} p < .01$. 


Appendix B

Figure 1. Belsky’s (1984) process model for the determinants of parenting
Appendix C

Coparenting Dimensions and CQ Items

Coparenting Solidarity. This dimension is characterized by an affective, enduring, and unified relationship that grows between individuals raising a child. Coparenting solidarity is demonstrated by warm and positive emotions that are expressed between partners while interacting with or about the child. Even when one partner is absent, the present partner talks of the absent partner in a positive manner. Parents who experience coparenting solidarity often report that as they parent together, they grow together and become closer (Van Egeren & Hawkins, 2004).

- Parenting has made me feel closer to my partner. (#1)
- I resent that my partner has to give so much of my time to our child (-). (#9)
- I feel closer to my child than to my partner (-). (#17)
- Parenting has given my partner and me a focus for the future. (#20)
- When my partner is gone, I fill him/her on what happens with our child. (#24)
- I often feel torn between my loyalties to my partner and my loyalties to my child (-). (#27)
- My partner and I are growing and maturing together through our experiences as parents. (#35)
- My partner and I work closely together as parents. (#38)
- Having a child has helped me to see positive qualities in my partner that I never noticed before. (#44)
- My partner and I like to talk together about what our child will be like when he/she grows up. (#52)
- I do not feel that parenting is as much of a close/intimate experience with my partner as I hoped it would be (-). (#54)
- My partner loves our child more than me (-). (#58)
- My partner fills me in on what happens with our child when I am gone. (#61)
- Seeing my partner with our child makes me happy. (#64)
- My partner and I often spend special time with our child as a family. (#68)

Coparenting Support. This dimension is defined as the different strategies that support each partner’s efforts to accomplish parenting goals or the parent’s perceptions of support in his/her efforts to accomplish parenting goals. The most critical feature of coparenting support is that each partner reinforces the others’ parenting goals. In a triadic context the parents’ cooperative interchanges build upon one another. (Belsky, Crnic, & Gable, 1995; Van Egeren & Hawkins, 2004)

- My partner tells me I’m doing a good job as a parent. (#2)
- My partner appreciates how hard I work at being a good parent. (#6)
- I support my partner as a parent. (#8)
• My partner and I often talk together about what is best for our child. (#14)
• My partner supports my discipline decisions. (#15)
• I encourage my partner and child to have special time together. (#16)
• My partner backs me up as a parent. (#18)
• My partner often asks my opinion on issues related to parenting. (#26)
• My partner and I argue about parenting (for example, how and when to punish our child) (-). (#32)
• When I feel at my wits end as a parent, my partner gives me the extra support I need. (#36)
• I often ask my partner his/her opinion about parenting issues. (#37)
• After my partner or I have handled a difficult situation with our child, we discuss it and try to figure out what we could have done better. (#39)
• I let my partner he/she is doing a good job as a parent. (#40)
• My partner makes me feel that I am the best possible parent for our child. (#43)
• When my partner and I disagree about parenting issues, we try to reach a compromise. (#49)
• I appreciate the hard work my partner puts into being a good parent. (#50)
• My partner often encourages positive interactions between me and my child (for example, “Show mom” or “Let dad play too”). (#55)
• I back up my partner’s discipline decisions. (#56)
• When I feel I may have made a mistake with our child, I can talk it over with my partner. (#65)

Undermining Coparenting. In this dimension, partners employ strategies that prevent the other partner from accomplishing parenting goals. This component is evidenced by criticism and lack of respect for a partner’s parenting decisions (Van Egeren & Hawkins, 2004). Undermining actions can be overt (i.e. intruding upon one another’s interactions with the baby or criticism aimed at the partner) or covert (i.e. one parent makes comments about the other to the child or excludes partner from desired activity (McHale, 1997; McHale, Kazali, Robman, Talbot, Carleton, & Lieberson, 2004).

• I still do things my own way, even if my partner and I have talked parenting issues over. (#4)
• I criticize the way my partner parents our child. (#5)
• My partner ignores rules we have set for our child. (#11)
• My partner says bad things about me in front of our child. (#12)
• My partner makes me feel like I am a bad influence on our child. (#22)
• I exclude my partner from special time with our child. (#30)
• My partner tries to have the last word on how we raise our child. (#31)
• My partner does things I don’t like with our child when I am not around. (#33)
• I give in to our child after my partner has said no. (#34)
• When my child and I are playing, my partner interrupts us and takes over. (#41)
• I ignore rules that we have been set for our child. (#42)
• Even if we have talked parenting ideas over, my partner does things his/her way. (#45)
• I try to have the last word in how our child is brought up. (#51)
• My partner gives in to our child after I have said no. (#53)
• My partner criticizes the way I parent. (#57)
• My partner excludes me from his/her special time with our child. (#60)
• I say bad things about my partner in front of our child. (#66)

Shared Parenting. This dimension is characterized by the degree to which one or the other parent is responsible for limit-setting and each partner’s sense of fairness about the way responsibilities are divided. Share parenting is assessed in two ways; balance of involvement and mutual involvement. Balance of involvement is the extent to which each parent interacts with the child relative to the other parent. Mutual involvement is the degree to which both parents are engaged with the child at the same time (Van Egeren & Hawkins, 2004)

• When there is a crisis with our child, my partner doesn’t help me as much as I would like (-). (#3)
• I help discipline our child often. (#7)
• I demand too much of my partner as a parent (-). (#10)
• My partner is often too involved with other things to carry a fair share of the parenting load (-). (#13)
• My partner likes to play with our child, but then leaves the hard work to me (-). (#19)
• I am willing to make some personal sacrifices in order to help with parenting. (#21)
• My partner pays too little attention to our child (-). (#23)
• My partner often helps discipline our child. (#25)
• My partner plays with our child often. (#28)
• I do more than my fair share when it comes to parenting (-). (#29)
• My partner makes too many demands on me as a parent (-). (#46)
• My partner and I share parenting responsibilities fairly. (#47)
• I feel like I don’t pay enough attention to our child (-). (#48)
• I have learned that if our child needs something important, I can rely on my partner to help provide it. (#59)
• I don’t carry a fair share of the parenting load, because I am involved with other things (-). (#62)
• My partner is willing to make some personal sacrifices in order to help with parenting. (#63)
• I often play with our child. (#67)