UNDERSTANDING STABILITY AND CHANGE IN DAILY COPARENTING:
PREDICTORS AND OUTCOMES IN FAMILIES WITH YOUNG CHILDREN

A Dissertation in
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by

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ABSTRACT

Coparenting consists of the ways parents work together in rearing their children. The ability of parents to cooperate, support one another, and avoid undermining or criticizing each other influences the quality of their couple relationship across time as well as can spill over into their children’s behavior and well-being. Coparenting quality can influence children directly through compromising the emotional security that children feel in regards to their parents and indirectly as the quality of coparenting spills over into the quality of parenting children receive from each individual parent. Coparenting can also be a source of strain or support for parents, as they provide assistance to one another in parenting. Therefore, examining the development of coparenting contributes in important ways to efforts to enhance family and child well-being.

Some studies have reported a moderate degree of stability in the quality of coparenting during the early years after birth—with those parents who start off working well together continuing to work well together later—yet researchers have often left relatively large gaps in between assessments of coparenting quality. For example, many longitudinal studies of coparenting tend to assess coparenting every 6 months to 1 year. These large gaps in between assessments leave us with an inadequate understanding of the complex family processes that are experienced by parents and children on a daily basis. Furthermore, the so-called “stability” that is observed in these studies tells nothing of what happens in between these various snapshots of family life. Indeed, coparenting quality likely fluctuates within families over shorter periods of time, as parents and families deal with the stresses of everyday life and seek for equilibrium. Moreover, these fluctuations likely hold meaning for relationships, parents, and children. Therefore, the current dissertation fills this gap in the research by examining coparenting quality on a daily basis.

Data for this dissertation were drawn from the Daily Family Life Project (DFLP), a longitudinal and daily diary study of parenting and family relationships in 183 couples with a young
child under age 5. In Study I, I developed and validated the Daily Coparenting Scale (D-Cop), a 10 item measure of parents’ perceptions of daily coparenting quality. Utilizing multilevel factor analysis, I identified two daily coparenting factors at both the between- and within-person level: positive and negative daily coparenting. The reliabilities for assessing within-person change of the overall D-Cop and individual positive and negative subscales were good, and I confirmed that parents' reports of coparenting quality fluctuated on a daily basis. Also, I established the initial validity of the D-Cop, as scores related as expected to (a) an established measure of coparenting in the field and to (b) couple relationship quality, parent depressive symptoms, and child behavior problems. Further, fluctuations in daily couple relationship feelings related to fluctuations in daily coparenting quality.

In Study II, I utilized multilevel modeling to examine predictors of within-person fluctuations in daily coparenting quality. Specifically and in line with frameworks on parenting and coparenting, I examined contextual (daily relationship quality, daily stressors, daily childcare burden), parent (daily negative emotions, gender), and child factors (daily child negative emotion, daily child-induced parenting stress) as predictors of mothers' and fathers' perceptions of daily coparenting quality. I found significant effects for daily relationship feelings, stressors, burden in childcare, parent negative mood, and parenting stress, although not child negative mood. These results indicate that on days when parents experience worse relationship satisfaction, more stressors, greater childcare burden, more negative emotions, and greater parenting stress—as compared with their usual level—they feel that coparenting functions more poorly than normal. No gender differences emerged in the effects of the predictors on daily coparenting.

As coparenting that is highly variable from day-to-day could potentially be a source of stress and insecurity for parents and children, Study III examined the overall extent of within-person variability in daily coparenting across 14 days as a predictor of change in relationship (couple relationship quality, coparenting quality), individual (parent depressive symptoms), and
child outcomes (internalizing and externalizing behavior) across 6 months. Overall, I confirmed that daily variability was unhealthy for some parent and child outcomes. Specifically, parents who showed higher variability were at risk of increasing depression, deteriorating coparenting quality, and increases in their child’s behavior problems. This was especially true for parents who already showed high levels of negative daily coparenting behavior on average, and variability in negative coparenting (e.g., undermining, hostility) held more meaning for outcomes than variability in positive coparenting (e.g., support, cooperation).

This dissertation contributes in many ways to the prior coparenting literature, as no work has examined coparenting at more micro time scales than months or years. The largest contributions of this dissertation to the literature include the first daily diary measure of coparenting quality (*Daily Coparenting Scale*), confirmation of fluctuations in coparenting quality on a daily basis, the potential meanings of daily variability in coparenting quality for parent and child outcomes, and potential avenues for targeted interventions to further stabilize and improve coparenting on a daily basis. The findings support and expand prior research and conceptualizations of coparenting as a dynamic construct that is multiply determined and that holds meaning for family, parent, and child well-being. This dissertation also suggests that studying family relationships at more micro-process levels (such as days) is useful and can assist researchers in uncovering processes of change for improving the quality of family relationships.
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General Introduction

The coparenting relationship deals with the way that partners work together in rearing their children and is considered to be related to but distinct from the marital or couple relationship (e.g., Feinberg, 2003). The study of coparenting in intact families is a relatively recent phenomenon (as compared to the marital relationship literature), with some of the first studies of coparenting on intact two-parent families taking place in the 1990s (e.g., Abidin & Brunner, 1995; Gable, Belsky, & Crnic, 1992; Floyd & Zmich, 1991; Fivaz-Depeursinge et al., 1996; McHale, 1995, 1997; Cowan & McHale, 1996)—although research first began with divorced and separated families, where ex-partners still had to manage their responsibilities to their children (e.g., Ahrons, 1981). Coparenting quality has quickly emerged though as an important influence on relationship well-being (e.g., Belsky & Hsieh, 1998; Schoppe-Sullivan et al., 2004) and child outcomes (e.g., Brown et al., 2010; McHale & Rasmussen, 1998; Schoppe et al., 2001; Teubert & Pinquart, 2010). Therefore, examining the influences on and the development of coparenting contributes in important ways to efforts to enhance family and child well-being.

This dissertation conceptualizes coparenting on a daily basis and seeks to understand its correlates and outcomes. In this dissertation, I develop and provide some initial validity for the Daily Coparenting Scale (D-Cop), a 10-item daily measure of parents' perceptions of coparenting. I then utilize 14 days of diary data obtained from over 170 two-parent families with a young child to examine daily predictors and long-term family and child outcomes of daily coparenting quality. In this introduction, I describe (a) the historical and theoretical conceptualizations of coparenting, (b) the empirical literature on how coparenting is a distinct and important construct, (c) the literature on the course of and predictors of coparenting quality, and (d) the usefulness of daily
diary designs and of measuring coparenting as daily family process. Finally, I provide an overview of the three studies to be conducted in this dissertation.

**Historical and Theoretical Conceptualizations of Coparenting**

Much of what has guided work on coparenting can be traced back to family systems theory (S. Minuchin, 1974; P. Minuchin, 1985). Families can be conceptualized as systems, just as organisms have various subsystems that all work together to produce the functioning of the organism; it is also recognized that breaking a system down into its various parts often does not yield an adequate understanding of the whole system, nor of the functioning of that individual part. This is because individual members of the family are embedded within the larger family system and their behaviors are dependent upon the rest of the system (Minuchin, 1985); thus, in theory adding another member, such as a child, to the family or while observing a marital discussion will necessarily change the family system and behavior. Individuals—subsystems in and of themselves—are also part of multiple-person subsystems within the whole family system, such as the marital, coparenting, parent-child, or sibling subsystems (S. Minuchin, 1974; P. Minuchin, 1985).

Salvador Minuchin (1974) stressed how partners (the executive subsystem) share leadership in the family. They must collaborate and support one another in their role as the head of the family and as coparents. He also contends that the various subsystems within the family are separated by boundaries—in other words, the couple and coparenting subsystems are distinct in theory—and the functioning of the couple subsystem lays the foundation for the functioning of the coparenting subsystem (e.g., the quality of their handling of parenting responsibilities).

Additionally, Patricia Minuchin’s (1985) writings were quite influential as she poignantly argued that developmental psychology had focused for too long on only dyadic relationships, especially the mother-child relationship. She held that we must examine the triadic family system as the unit of analysis in order to truly understand the inner workings and complexities of
families. She declared, “Studies of the parent-child dyad...do not represent the child’s significant reality” (p. 296). Reviews examining families as systems have also called for going beyond dyadic relationships in our analysis of families (e.g., Cox & Paley, 1997), as the functioning of various subsystems within the family may differ markedly—which could lead to different child outcomes than would be expected from examining only the quality of the parent-child relationship or the dyadic marital relationship (Cox & Paley, 2003). In a recent chapter, McHale and Lindahl (2011) summarized what the push for looking beyond dyads means for family research:

“This basic notion—that children are part of a family relationship system in which they are simultaneously cared for and socialized by multiple parenting figures—is at the core of modern coparenting theory and research....Coparenting conceptualizations are not meant to replace or reduce the importance of maternal (or paternal) parenting influences, but rather to draw attention to the simultaneous reality that even as they are parented by individuals, children also develop and function within a triangular system in which the ‘rules of engagement’ differ” (pp. 4-5).

Cohen and Weissman’s (1984) writings were also influential in conceptualizing coparenting, which they termed the “parenting alliance.” To them, this alliance contains interactions between parents that concern childrearing, and it is distinguishable from the marriage. In fact, they posit that it is possible for the parenting alliance to be functional while marital difficulties exist. They also elucidate four crucial factors in a coparenting relationship: each parent (1) must be invested in the child, (2) should value the other parent’s involvement, and (3) should respect the judgments of the other parent; also (4) communication between parents must be established.

From these beginnings, various definitions of coparenting developed. Belsky et al. (1995) examined coparenting via naturalistic observation in the triad, mothers and fathers working with or against each other when parenting their child. Fivaz-Deperusinge et al. (1996) talk about it as the coordination between family members in the triad. McHale and his associates typically refer
to coparenting as mutual parental support and coordination of involvement with the child, although they also point out that coparenting can include covert communications between parent and child regarding the coparenting or family unit—even in the absence of the other parent (Cowan & McHale, 1996; McHale, 1995, 1997; McHale & Rasmussen, 1998; McHale, et al., 2000); to them, it is also an inherently triadic or polyadic concept (McHale et al., 2004). Feinberg (2002) refers to coparenting as “the ways that parents work together in their roles as parents” (p. 173). Van Egeren and Hawkins (2004) state that coparenting is a dyadic process and “exists when at least two individuals are expected by mutual agreement or societal norms to have conjoint responsibility for a particular child’s well-being” (p. 166). And more recently, McHale and Irace (2011) give the most expansive and inclusive definition, stating that “coparenting, stripped to its essence, is a shared activity undertaken by those adults responsible for the care and upbringing of children” (p. 16); they point out that these individuals need not even be biologically related to the child, that the variety of family forms are limitless, and that there need not be only two coparents. They caution that this does not mean every adult who has positive interactions with the child is counted as a coparent (McHale & Irace, 2011).

Integrating these various perspectives can be difficult, which is one of the current limitations of the field of coparenting research and theory. Each has his or her own conception of how to distinguish coparenting from the marital relationship. From my review of the literature and theory, I suggest there is an inherent focus in all of these definitions on interactions between parents who must work together to raise a child. Furthermore, Feinberg (2003) makes it clear in his writings that coparenting is a “conceptual term”—in other words, the functioning of the coparenting subsystem is conceptually distinct from the couple subsystem. He asserts that “a focus on the importance of coparenting need not lead to a reification of the concept: The coparenting relationship does not exist outside of, apart from, or independently of the overall relationship between parents” (p. 97, emphasis added). Additionally, in one of the first modern
conceptions of coparenting, Gable, Crnic, & Belsky (1994) explain that the coparenting relationship is the melding of the marital subsystem and the parent-child subsystem, and it emerges from the marriage; they suggest though that it also “possesses unique qualities, perhaps because it encompasses attitudes, values, and beliefs about another individual—the child” (p. 382). Therefore, coparenting is conceptually distinct from the marital relationship, and it is important to examine empirically (as I outline in the next section); yet, satisfaction with coparenting and with the couple relationship are inherently interdependent. Indeed, from a family systems perspective, the functioning of the coparenting relationship cannot be adequately removed from the context of the functioning of the marital relationship. The one deals with parenting issues and the other deals with relationship issues. In brief, coparenting deals with all aspects of managing shared childrearing, and it does not include relationship issues such as “the romantic, sexual, companionate, emotional, financial, and legal aspects of the adults’ relationship that do not relate to childrearing” (Feinberg, 2003, p. 96).

**Coparenting as a Related, Yet Distinct and Important, Empirical Concept**

**Associations Between Coparenting and Marital or Couple Functioning**

From a family systems perspective, both the couple relationship and the coparenting relationship are subsystems within the broader family whole (Minuchin, 1974; Cox & Paley, 1997); therefore we would expect functioning in one to be inherently tied to the other. In general, research on coparenting has supported this view. Pre-birth marital satisfaction has been linked with the quality of the coparenting relationship during infancy, in both parent reports (Le, McDaniel, Leavitt, & Feinberg, in press; Van Egeren, 2004) and observations (McHale, Kazali, et al., 2004; Schoppe-Sullivan et al., 2007); it also predicts out into the preschool years (Lindahl, Clements, & Markman, 1997). Most studies have related various dimensions of marital functioning cross-sectionally. For example, reported relationship anxiety such as worries about not being loved (Belsky, Crnic, & Gable, 1995), observed hostility between partners (Katz &
Gottman, 1996; Margolin et al., 2001), worse observed marital problem solving (Margolin et al., 2001), and lower observed positive engagement (Schoppe-Sullivan et al., 2004) have been linked to less supportive coparenting. Observed marital distress has also been linked to more competitive and less harmonious coparenting, as well as greater imbalances of involvement and warmth in coparenting interactions (McHale, 1995). Undermining coparenting has been associated with many of the same marital functioning indicators as mentioned before, including but not limited to observed marital hostility (Katz & Gottman, 1996), reported problems with feeling close to others (Belsky et al., 1995), worse reported marital quality (McHale, 1997), low positive engagement (Schoppe-Sullivan et al., 2004), and defensiveness (Margolin et al., 2001). It is important to note that McHale (1997) also found relations between reported marital quality and ‘covert’ coparenting behaviors, such as parent-child conversations that undermine the other parent when the other parent is not physically present.

The relationship between marital and coparenting functioning is not always straightforward, which is to be expected when dealing with complex family systems where changes in one part of the system reverberate throughout the entire system (Cox & Paley, 1997). Although the vast majority of studies find that marital and coparenting functioning are related, there are times when the link between marital functioning and observed coparenting (McHale, 1995), observed family interactions (Favez et al., 2006), or reported coparenting (Floyd & Zmich, 1991) has not been found. This may be due to a lack of power from small sample sizes or in the case of Floyd & Zmich (1991) that they were examining families raising a child with mental retardation. It is also likely that this relationship is more complex than the simple idea that a poor marital relationship must equal a poor coparenting relationship. For example, some have found that the relationship between marital and coparenting functioning differs depending on child gender (McHale, 1995) or child temperament (Schoppe-Sullivan et al., 2007). Parental characteristics, such as fathers’ flexibility and self-restraint, can even block the spillover of
marital problems into the coparenting relationship (Tablot & McHale, 2004), and at times positive coparenting can exist even when coupled with poor marital functioning (e.g., McHale & Rasmussen, 1998). The marital and the coparenting subsystems also may at times move in opposite directions, with increases in marital quality relating to decreases in coparenting quality or vice versa—perhaps suggesting a trade-off of time and energy that can be spent on each relationship during the child’s first year (Van Egeren, 2004).

**Coparenting Quality and Its Distinct and Important Linkages**

_Coparenting and marital relationships may develop differently._ Again, from a family systems perspective, it can be argued that the coparenting and marital subsystems should be distinct in some ways as well—i.e., there are boundaries between subsystems (Minuchin, 1974; Cox & Paley, 1997). The development of the marital and coparenting relationships can take different paths, suggesting that these are in some sense distinct subsystems. Some studies have found that the quality of coparenting predicts the development of the marital relationship post-birth. In their analysis of first-time parents, Belsky and Hsieh (1998) found that the level of supportive coparenting predicted whether marital functioning would deteriorate over time. Schoppe-Sullivan and her colleagues (2004) found that the quality of the coparenting relationship at 6 months after birth predicted the quality of the marriage at 3 years after birth, but the reverse was not true. Another investigation found that childrearing disagreements at 1 month were related to changes in wives’ marital functioning across the first 3 years (O’Brien & Peyton, 2002). Similarly, Le et al. (in press) found that coparenting support and undermining predicted changes in wives’ (but not husbands’) perceptions of relationship quality from 6 months to 3 years after birth. Additionally, although I talk more about the development of coparenting over time in more detail in the next section, it is worth noting that marital relationship quality on average declines—at least in small ways—across time post-birth (for a review see Lawrence, Rothman, Cobb, & Bradbury, 2010), whereas the quality of the coparenting relationship appears be quite stable.
(Favez, Frascarolo, Carneiro, et al., 2006; Feinberg et al., 2012; Schoppe-Sullivan et al., 2004; Van Egeren, 2004) with some research suggesting increases in the frequency of supportive coparenting over time (Gable, Belsky, & Crnic, 1995; Schoppe-Sullivan et al., 2004).

Another point about the distinct development of the marital and coparenting subsystems is that the couple or marital relationship often existed prior to the development of the coparenting relationship, and the coparenting relationship often endures even after the marriage or couple relationship dissolves (Cowan & McHale, 1996). A good illustration of this point comes from fragile families data where coparenting commonly continued long after birth even when most of these parents, of whom many had expected to get married, ended their relationship soon after the birth of their child (Mincy, Pouncy, Reichert, & Richardson, 2004). I also must point out that 20 years ago “coparenting” was a term used to describe interparental childrearing arrangements after divorce, meaning that research has long recognized that parents can support and undermine one another in their parenting roles while the marital relationship no longer exists.

*Creating a unique family system.* As coparenting involves one or more children it is inherently triadic or polyadic, and the nature of the family system changes; this can be shown in a multitude of ways. First, McHale and associates (2000) found that positive parental engagement in dyadic parent-child interactions and triadic family interactions were completely unrelated. Similarly, Deal et al. (1999) found that parental behavior differed between the dyadic and triadic contexts. Second, coparenting can differ between children in the same family, and this effect cannot be accounted for by the developmental stage of the child as they were careful to compare observations completed when both children were 12 months old (McConnell et al., 2003). Adding to this, Szabo, Dubas, and van Aken (2012) found that the addition of a second child into the family can decrease the stability of the coparenting of the first child over time, depending on the second child’s temperament. Finally, coparenting has been shown to differ between the triadic and tetradic contexts (Szabo et al., 2012).
Coparenting predicts parenting and child outcomes. Coparenting has often proved to be a distinct and more proximal influence on parenting quality and child outcomes than the quality of the marital or couple relationship. For example, Abidin and Brunner (1995) found that parent reports of coparenting and parenting style were related, although reports of marital adjustment were not related to parenting style. Several studies have indicated that coparenting mediates the relationship between marital functioning and parenting (Floyd et al., 1998; Margolin et al., 2001; Pedro et al., 2012) and between marital functioning and child outcomes (Baril, Crouter, & McHale, 2007; Bonds & Gondoli, 2007; Katz & Low, 2004; Schoppe-Sullivan et al., 2008). Furthermore, coparenting has been linked to a variety of child outcomes, including externalizing and internalizing problems (McHale & Rasmussen, 1998; McConnell & Kerig, 2002; Schoppe, Mangelsdorf, & Frosch, 2001), depression (Katz & Low, 2004), self-regulation skills (Abidin & Brunner, 1995; Brody et al., 1999; Karreman et al., 2008), inhibition (Belsky, Putnam, & Crnic, 1996), attachment security (Brown et al., 2010; Caldera & Lindsey, 2006; Frosch et al., 2000), academic success (Cabrera et al., 2012; Stright & Neitzel, 2003), peer relations (Leary & Katz, 2004; McHale, Johnson, & Sinclair, 1999), and prosocial behavior (Scrimgeour, Blandon, Stifter, & Buss, 2013). It is important to point out that coparenting not only predicts child outcomes, but its influence often remains after controlling for marital quality (Abidin & Brunner, 1995; Bearss & Eyberg, 1998; Feinberg et al., 2007; Frosch et al., 2000; Katz & Low, 2004; McHale & Rasmussen, 1998) or parenting (Belsky et al., 1996; Brown et al., 2010; Karreman et al., 2008; McHale et al., 1999). A meta-analysis corroborates these results: coparenting predicts child adjustment over and above marital quality and parenting (Teubert & Pinquart, 2010).

As a summary, it is clear that (1) marital and coparenting functioning are related. The predictive power of pre-birth marital or couple relationship quality on the development of the coparenting relationship is apparent, and post-birth contemporaneous relations between the couple and coparenting relationship often appear. Yet, the longitudinal relations after birth
between marital and coparenting functioning are sometimes unclear. It is also clear that (2) the behavior of the family system changes depending on who is present in the family. Finally, (3) the most powerful illustrations of the distinct nature of coparenting come from studies that show (a) coparenting shapes the development of the marital relationship post-birth, and (b) coparenting quality predicts child outcomes as well as or much better than marital or relationship quality.

The Developmental Course of Coparenting Quality During the Early Years

Pre-birth predictors of the developing coparenting relationship

In most couples, the couple relationship predates the coparenting relationship; therefore many of the existing couple relationship dynamics set the tone for the creation of the coparenting relationship. For example, pre-birth marital satisfaction predicts later coparenting quality (Le et al., in press; McHale, Kazali, et al., 2004; Schoppe-Sullivan et al., 2007; Van Egeren, 2003, 2004), and some have found relations as far out as 5 years later (Lindahl et al., 1997). Expectant parents’ pre-birth feelings, expectations, and cognitions also predict the quality of the future coparenting relationship, with more negative outlooks predicting a worse coparenting relationship (McHale, Kazali, et al., 2004; Van Egeren, 2004; Von Klitzing et al., 1999), with some effects remaining up to 30 months of child age for some families (McHale & Rotman, 2007). Moreover, observations of expectant parents with a doll and later with their child reveal that the quality of family interactions remains relatively stable from pregnancy to 18 months (Favez, Frascarolo, & Fivaz-Deperusinge, 2006). This moderate stability would be expected as families seek for a state of homeostasis, or equilibrium (Minuchin, 1985).

Coparenting is moderately stable across the early years

As I just mentioned, family systems theory leads us to believe that the family system is constantly seeking for homeostasis, or equilibrium; therefore, some form of stability is to be expected (Minuchin, 1985). Although small changes in the frequency of coparenting sometimes appear (e.g., Gable et al., 1995; Schoppe-Sullivan et al., 2004), significant and moderate rank-
order stability has been found in coparenting observations as well as parental reports of coparenting during infancy and toddlerhood (Davis et al., 2009; Favez et al., 2006; Feinberg et al., 2012; Fivaz-Depeursinge et al., 1996; Gable et al., 1995; McHale & Rotman, 2007; Van Egeren, 2003, 2004). This is also true from infancy into the preschool years (Feinberg et al., 2012; Laxman et al., 2013; McHale & Rasmussen, 1998; McHale & Rotman, 2007; Schoppe-Sullivan et al., 2004). Just as an illustration, Fivaz-Depeursinge and her lab (1996; also Favez, Frascarolo, Carneiro, et al., 2006) were able to identify stable family alliance types from 3 to 18 months of infant age, and Schoppe-Sullivan and her colleagues (2004) showed moderate stability in both supportive and undermining coparenting behaviors in their observations of families at 6 months and 3 years.

The stability of coparenting from infancy into the preschool years is striking, as this is across developmental phases for the child (Van Egeren, 2003). Indeed, the actual behaviors may change but the underlying quality or solidarity is often still the same. For example, in infancy coparenting may consist mostly of coordination between parents in meeting their infant’s basic needs (Schoppe-Sullivan et al., 2004) as well as staying connected to one another throughout the addition of a new family member and resulting reorganization of the family system (McHale & Rotman, 2007). Then, in toddlerhood and the preschool years, collaborating as a team to “establish and enforce developmentally appropriate limits” may be more pertinent (p. 65). In both developmental stages, however, the ability to work together as a parenting team is important and is still manifested.

**Coparenting is Multiply Determined**

Drawing from Belsky's (1984) process model of parenting and Feinberg's (2003) ecological model of coparenting, we would expect coparenting to be multiply determined by characteristics of the parents, the context (including the couple relationship and other contextual forces), and the child. Feinberg's (2003) model places coparenting at the center of family
functioning, in which coparenting is influenced by the various characteristics of the family, its members, and its environment, and coparenting in turn influences the quality of parenting and parent and child adjustment. Researchers have confirmed that coparenting is indeed related to or influenced by parent, contextual, and child characteristics. Feinberg (2003) further states that the power of coparenting as a predictor of many parent and child outcomes results from its "susceptibility to the influence of other factors" (p. 118). In other words, coparenting may be easily influenced by a variety of factors.

**Parent characteristics.** Those characteristics that are more likely to divide parents or influence parents to react to their partner or child negatively tend to relate to more negative coparenting interactions, such as differences in personality, differing beliefs and expectations about childrearing, difficulties regulating one's own emotions, negative family of origin experiences and insecure states of mind, and poor parent mental health. For example, when parents' personalities differ or they have different child-rearing beliefs or motivations they are more likely to undermine one another and experience difficulties working together in parenting their child (Belsky, Crnic, & Gable, 1995; Lindsey et al., 2005; McHale & Rotman, 2007; Van Egeren, 2003), and these negative effects worsen when parents are also under stress (Belsky et al., 1995). Researchers have also found that when mothers and fathers are less flexible (Talbot & McHale, 2004) and less adept at regulating negative emotion this may result in more negative or hostile coparenting interactions (Frosch, Mangelsdorf, & McHale, 1998; Lindahl, Clements, & Markman, 1997; Schoppe-Sullivan & Mangelsdorf, 2013; Stright & Bales, 2003). Parents with more negative experiences in their families of origin and who have a more insecure attachment state of mind also tend to show more negative behavior in coparenting and family interactions (Frosch et al., 1998; Talbot et al., 2009; Van Egeren, 2003). This is likely because those "parents who feel more secure about themselves…are more likely to be able to work flexibly with their partner" (Mangelsdorf, Laxman, & Jessee, 2011, p. 49). However, some have found that this
relation sometimes does not appear if the mother is college-educated (Stright & Bales, 2003). Indeed, highly educated parents sometimes show more positive coparenting (e.g., Van Egeren, 2003), although some postulate that this effect is not due to educational attainment per se but instead due to the higher levels of life stress experienced by those of lower socioeconomic status (Mangelsdorf et al., 2011). Parents' violated expectations concerning the division of labor (Khazan, McHale, & Decourcey, 2008; Van Egeren, 2004) and more negative pre-birth expectations concerning their future family also predict more negative coparenting after birth, especially when their infant is experienced as more reactive (McHale, Kazali, Rotman, Talbot, Carleton, & Lieberson, 2004; McHale & Rotman, 2007). Finally, parents with better mental health and more positive self-evaluations are better able to handle the challenges of working together as coparents (Bronte-Tinkew, Scott, Horowitz, & Lilja, 2009; Elliston et al., 2008; Lindsey et al., 2005; McDaniel & Teti, 2012).

**Contextual and relationship characteristics.** Stress, support, and other forces outside of the family that create part of the context for coparenting interactions can also influence the quality of coparenting. There has not been much work specifically on these contextual effects. However, some researchers have shown that the influence of differences between partners on coparenting is amplified when families are stressed (Belsky, Crnic, & Gable, 1995), greater social support is linked to more supportive coparenting (Lindsey et al., 2005), and feeling more overloaded by life's demands is related to worse perceptions of coparenting quality (Maas, McDaniel, Feinberg, & Jones, 2015). In their review of influences on coparenting, Mangelsdorf et al. (2011) also point to the likely influence of work status and strain, the involvement of extended family, and significant life events—although these have not been explicitly and consistently examined in research. These contextual factors likely influence coparenting by either adding to or depleting the individual and relational resources available in the family, and if resources are
depleted the ability to effectively coparent would likely also diminish (e.g., Conservation of Resources perspective, Hobfoll, 1989).

As already explained in detail earlier, marital or relationship quality as it predicts and relates concurrently to coparenting quality has been examined extensively. In general, greater couple relationship quality predicts and is related to more supportive and less conflictual coparenting (e.g., Le et al., in press; McHale, 1995, 1997; Schoppe-Sullivan et al., 2004; Van Egeren, 2004). Additionally, some researchers have noted that perceptions of coparenting quality are also related to other areas within the couple relationship, such as mothers' (but not fathers') satisfaction with sex and romance (Maas et al., 2015). From a family systems perspective where the coparental relationship and the couple relationship are connected but distinct in their focus, it is easy to see why the two are often linked together (e.g., Minuchin, 1985).

**Child characteristics.** Children can sometimes be “a source of stress and strain in the marriage, a barrier to intimacy, and a cause of conflict” (Belsky, 1990, p. 172), especially when parents perceive their children as difficult. Although the relationship can sometimes be complex with the effects of the child's temperament depending on other stressors that are present in the family system (e.g., Schoppe-Sullivan et al., 2007), some researchers have found that poorer coparenting quality is linked directly with more reactive and negatively emotional children (Davis et al., 2009). More negative infant temperament may also alter the stability of the coparenting relationship over time (Laxman, Jesse, Mangelsdorf, Rossmiller-Giesing, Brown, & Schoppe-Sullivan, 2013) or the quality of the marital relationship over time (e.g., Belsky & Rovine, 1990). Therefore, high quality parenting of children who express more negative emotions may be more difficult to maintain, as a bidirectional process occurs across time between parents and children—with child negative emotion predicting poorer quality parenting, and poorer quality parenting predicting more child behavior problems (e.g., Morris, Silk, Steinberg, Sessa, Avenevoli, &
Essex, 2002). Furthermore, differences in opinion between mothers and fathers on how to handle infant or child behavior can lead to conflict between parents (Krishnakumar & Buehler, 2000).

**Examining Coparenting as a Daily Family Process**

**The Usefulness of Daily Diary Designs**

Although intensive data designs (such as daily diaries) have some disadvantages—such as greater burden to participants and potentially researchers—these methods are best aimed to approximate the processes that individuals and families experience in their lives (Bolger, Davis, & Rafaeli, 2003). These methods are designed specifically to capture the "little experiences of everyday life that fill most of our working time and occupy the vast majority of our conscious attention" (Wheeler & Reis, 1991, p. 340). Bolger et al. (2003) summarize four important advantages that are offered by daily measures. First, these methods are best able to approximate and measure the natural, spontaneous contexts that participants experience in life. Second, using daily diary methods reduces the likelihood of retrospection, as it places the measurement of the process closer to the actual occurrence of the process. Point-in-time measures in psychology and family studies often ask participants to rate their feelings thinking about the last month or some similar time frame (e.g., CES-D; Radloff, 1977) or their typical interactions (e.g., Feinberg et al., 2012). The problem here is that participants may misremember or be biased in their recall. For example, participants' current emotional state cues similar emotions and memories which may lead to a positively or negatively biased report depending on how they are feeling when they completed the survey (e.g., Bower, 1981). Additionally, it has been found that participants' subjective overall reports after the fact often differ from the average we would get if we measured these participants across days and then aggregated their experiences across those days (Shiffman et al., 1997). In other words, Bolger et al. (2003) argue that daily diary measures are better able to reduce measurement error and therefore improve validity and reliability (also see Shiffman, Stone, & Hufford, 2008).
Third, unlike with typical point-in-time measures, daily measures allow us to better examine and characterize the processes and change across time (Bolger et al., 2003). For example, we may be able to find cycles in family processes across a week or examine how an individual or family adjusts after experiencing a particular event. Additionally, Collins (2006) states that our methods and research design must match with our research questions and theory. Depending on the temporal design and spacing of assessments, we gain a very different view of the change processes involved—or if the spacing is too large we may miss them entirely (Collins, 2006). A common problem is that researchers study processes that unfold on a more micro time scale (such as days, or even minutes or seconds) but measure these processes across 2 month intervals for example; there are many reasons for this, with funding and burden likely being common reasons. Researchers then predict from baseline to 2 months out, use a theory that talks about processes that are experienced on a daily or instantaneous basis, and make conclusions that may or may not be merited about the lived processes.

I am not arguing that we should abandon traditional longitudinal research designs, as these studies are important and often provided us with complementary data to daily diary designs. Yet, in "ideal longitudinal research," it is crucial that our research design and data collection efforts match with our theories of processes and change (Collins, 2006, p. 507). Thus, at times daily diary data is needed to answer our questions more fully. Daily diary data also allows researchers to obtain estimates of processes that we could not otherwise get with point-in-time measures, such as variability or the instability in particular processes across a period of time (Ram & Gerstoff, 2009). In some theories, such as attachment theory for example, instability in family relationships may be a risk factor for poorer individual and family outcomes (Sroufe & Waters, 1977).

Finally, Bolger et al. (2003) state that a fourth advantage to daily diary designs is that researchers are better able to examine causes and consequences of everyday experiences. For
example, researchers can take a within-person approach to examining the processes involved in their research question and theory and each individual becomes their own control. In other words, one can examine associations between fluctuations in variables within individuals, regardless of their overall level of these variables. Utilizing a within-person approach and data analysis helps to remove many possible confounds that may influence why some individuals show more or less of a particular variable as compared with other individuals. Lagged analyses can also be done to better test the potential ordering of effects between two variables of interest and because less time has elapsed between assessments it is less likely that other confounds may mask the order of effects. In sum, daily diary designs provide many unique advantages which make developing and utilizing a daily measure of coparenting particularly useful for future research.

**The Usefulness of Measuring Daily Coparenting**

Coparenting likely shows fluctuations from day-to-day as parents deal with the struggles and stresses of everyday life. A more intensive data collection design is warranted to better capture these coparenting processes as they are lived and experienced in everyday life, and as outlined in the prior section daily coparenting data would provide researchers with some unique advantages in the study of family life. Besides (1) providing us with a more accurate measure of the general level or quality of coparenting that parents experience on a daily basis (as we avoid recall bias for example), we can examine (2) the connection between parents' daily experiences (such as work stressors, parenting stressors, couple conflict, etc.) and the quality of coparenting that children receive on those days. It also gives us the opportunity to examine (3) the overall extent of variability or instability from day-to-day in coparenting and the effects of such variability on children, individual parents, and family relationships. Indeed, inconsistency and instability in parenting and family relationships have been linked to insecure attachment (Belsky & Pasco Fearon, 2008) and to greater strain on individual and couple well-being (Arriaga, 2001). These are only a few of the potential uses for a daily coparenting measure.
Studying coparenting at the daily level will better illuminate our understanding of the day-to-day family processes that lead to the best outcomes for children and families, and information gleaned from daily diary studies of coparenting could be used to inform and improve family interventions. For example, if particular daily experiences are found to be the most closely linked to or most influential of the coparenting that children receive on those days, those factors could be those that are targeted by interventions and prevention efforts to produce the strongest changes in the quality of coparenting. It is questions and answers such as these that make the development and use of a daily coparenting measure crucial for the advancement of the field of coparenting research and interventions centered around parenting in two-parent families. The current dissertation will contribute to the coparenting literature, as I reveal the fluctuations and changes that may take place over micro (day-to-day) time in coparenting quality. Indeed, studies that assess coparenting across micro time allow us to better understand the functioning of the coparenting subsystem and how everyday perturbations to the system over time may alter the functioning of the system and whether these everyday perturbations have implications for more global and long-term family, parent, and child well-being.

**Main Research Questions**

This dissertation uses daily diary and longitudinal data in order to examine daily coparenting quality. Study I, II, and III all utilize data drawn from the *Daily Family Life Project* (DFLP), a study of 183 heterosexual couples with a young child, to first develop and validate a parent report measure of daily coparenting quality, and second to examine predictors and outcomes of fluctuations in daily coparenting quality.

**Study I: Assessing Coparenting Relationships in Daily Life: The Creation and Validation of the Daily Coparenting Scale (D-Cop)**

Some studies have reported moderate stability in the quality of coparenting during the early years after birth (Favez, Frascarolo, Fivaz-Depeursinge, 2006; Schoppe-Sullivan et al.,
2004; Van Egeren, 2004), yet the intervals between assessments are often relatively large such as 6 months or more. Although there may be moderate rank-order stability over long stretches of time, coparenting quality likely fluctuates within families over shorter periods, as parents and family systems deal with the stresses of life. No studies have examined how coparenting might fluctuate on a more intensive time scale than years or months. Yet, Gable, Belsky, and Crnic (1992) suggested that “it is the day-to-day functioning of the coparenting relationship that provides a window on one important mechanism by which poor marriages both directly and indirectly affect child development” (p. 284, emphasis added) and that “information based on repeated observations of naturally occurring coparenting interactions are warranted” (p. 286). In this study, I describe the development and validation of the Daily Coparenting Scale (D-Cop), a 10 item measure of parents' perceptions of daily coparenting quality, to address the absence of measures of daily coparenting in the field. The purpose of this study was to establish the reliability and validity of the D-Cop. I therefore utilized the measure on a sample of 174 families with a young child, examined the factor structure at the between- and within-person level, calculated the reliability of assessing within-person changes in daily coparenting (Shrout & Lane, 2012), and descriptively explored the individual items and overall D-Cop scale. To establish the validity of the D-Cop, I (a) examined whether an established measure of coparenting (CRS; Feinberg et al., 2012) was related to average levels of daily coparenting, (b) examined whether couple relationship quality, parent depressive symptoms, and child behavior problems significantly related to average levels of daily coparenting, and (c) examined whether daily coparenting quality fluctuated within individuals across days as predicted by fluctuations in daily feelings about the couple relationship.

**Study II: Predicting Coparenting Quality in Daily Life in Mothers and Fathers**

The coparenting relationship is at the center of the family system and many family interactions (Feinberg, 2003) and has therefore been linked to important family and child
outcomes. For example, more supportive and positive coparenting relationships tend to predict greater marital quality, fewer child behavior problems, and more secure child attachment (Brown et al., 2010; Belsky & Hsieh, 1998; McHale & Rasmussen, 1998; Schoppe et al., 2001; Schoppe-Sullivan et al., 2004; Teubert & Pinquart, 2010). Therefore, elucidating influences on the coparenting relationship can better assist researchers and those who work with families as they attempt to enhance family and child well-being. In this study, I examine contextual (relationship quality, daily stressors), parent (depressed mood), and child variables (child-induced parenting stress, child negative affect) as predictors of daily coparenting quality. Unlike earlier work, which has assessed coparenting using point-in-time measures (e.g., Bonds & Gondoli, 2007; Schoppe-Sullivan et al., 2004, 2008), I use an intensive longitudinal data (ILD) design (daily diaries) to examine coparenting on a daily basis. This type of a study is inherently designed to capture the small variations that may occur in perceptions of coparenting from day-to-day within individual parents. Such a study is necessary to better understand how coparenting reacts to daily perturbations and changes in the family system. I utilize the Daily Coparenting Scale in a 14-day diary study of 174 heterosexual families (both mother and father reports) to examine coparenting quality on a daily basis.

**Study III: Variability in Daily Coparenting as a Predictor of Family and Child Outcomes**

Family systems can be quite complex with multiple, interconnected subsystems and relationships (e.g., couple, coparenting, parent-child, etc.). Moreover, changes in one part of the system can reverberate through the entire family system as well as into the well-being of the system’s individual members and subsystems (Cox & Paley, 1997). Although prior work on coparenting has provided us with a better understanding of the moderate long-term stability of the relationship (e.g., Schoppe-Sullivan et al., 2004) and that general mean levels of coparenting quality can be linked with couple relationship and child outcomes (e.g., Brown et al., 2010; Belsky & Hsieh, 1998; McHale & Rasmussen, 1998; Schoppe et al., 2001; Schoppe-Sullivan et
al., 2004; Teubert & Pinquart, 2010), coparenting—like many human interactions—inherently occurs in real-time as an ever-changing family process with multiple family members involved. Gable, Belsky, and Crnic (1992) suggested over 20 years ago that "it is the day-to-day functioning of the coparenting relationship that provides… one important mechanism by which poor marriages both directly and indirectly affect child development” (p. 284, emphasis added). The extent of variability (i.e., instability) in coparenting from day-to-day is likely tied to family and child outcomes in addition to mean levels of coparenting quality. Some families may show high variability in coparenting, while others show only small fluctuations around their average. High variability may be an indicator of family relationships that are unpredictable or inconsistent, and such inconsistency may lead to problems in parent-child relationships given that children may have trouble utilizing their parents as a secure base from which to explore their world (Ainsworth, Blehar, Waters, & Wall, 1978; Sroufe & Waters, 1977); children may begin to act out with fear or anger as they react to this instability (Campbell, 1995). Adults also desire security with romantic partners (Milkulincer, Florian, Cowan, & Cowan, 2002). Such desires can be fulfilled or frustrated during coparenting (Feinberg, 2003), with difficulties in coparenting teamwork resulting in stress on parents and their relationship. Thus, this study focuses on daily variability in coparenting quality as a window into the more micro-functioning of the coparenting relationship. I also examine how daily variability may be linked with broader changes in the functioning of the family system and its members long-term. Variability in daily coparenting quality is defined as the within-person standard deviation (iSD) across each individual's 14 days of reports (e.g., Ram & Gerstoff, 2009), and greater iSDs represent more overall variability from day-to-day in their reports. This estimate is then utilized in simple multilevel models (MLM) to predict 6-month family and child outcomes (e.g., relationship quality, depressive symptoms, child behavior problems). These MLMs would have two levels—the individual level (level 1) and the couple level (level 2)—to account for the fact that we have both parents reporting on outcomes nested within families (Singer &
Willet, 2003). As instability and inconsistency in family relationships are theoretically (e.g., attachment theory) and empirically linked to poor family and child outcomes, I hypothesize that greater daily variability in coparenting quality will be related to more negative long-term outcomes, including worse relationship functioning (e.g., lower quality relationships and coparenting), poorer parent mental health (e.g., greater depressive symptoms), and poorer child outcomes (e.g., more problem behaviors). I also hypothesize that the effects of daily variability in negative coparenting behaviors (e.g., undermining, hostility) will be stronger as compared with positive coparenting behaviors (e.g., support, cooperation).
Study I
Assessing Coparenting Relationships in Daily Life:
The Daily Coparenting Scale

Introduction

The coparenting relationship refers to the way that partners work together in rearing their children (Feinberg, 2003). The level of coparenting relationship quality has been tied to family and child outcomes, such as marital quality, child behavior problems, and child attachment security (Brown et al., 2010; Belsky & Hsieh, 1998; McHale & Rasmussen, 1998; Murphy, Jacobvitz, & Hazen, 2016; Schoppe et al., 2001; Schoppe-Sullivan et al., 2004; Teubert & Pinquart, 2010). Coparenting can influence child outcomes directly through compromising the emotional security that children feel in regards to their parents (Davies & Cummings, 1994) and indirectly as the quality of coparenting spills over into the quality of parenting (Erel & Burman, 1995; Margolin et al., 2001). Coparenting can also be a source of strain or support for parents, as they provide assistance to one another. Therefore, examining the development of coparenting contributes in important ways to efforts to enhance family and child well-being.

Some studies have reported moderate stability in the quality of coparenting during the early years after birth (Favez, Frascarolo, Fivaz-Depeursinge, 2006; Schoppe-Sullivan et al., 2004; Van Egeren, 2004), yet the intervals between assessments are often relatively large such as 6 months or more. Although there may be moderate rank-order stability over long stretches of time, coparenting quality likely fluctuates within families over shorter periods, as parents manage the daily hassles of childrearing and other work, social, and health stressors. No studies have examined how coparenting might fluctuate on a more intensive time scale than years or months. Yet, Gable, Belsky, and Crnic (1992) suggested that “it is the day-to-day functioning of the coparenting relationship that provides a window on one important mechanism by which poor marriages both directly and indirectly affect child development” (p. 284, emphasis added) and that
“information based on repeated observations of naturally occurring coparenting interactions are warranted” (p. 286). In the present study, we describe the development and validation of the Daily Coparenting Scale (D-Cop), a 10 item measure of parents' perceptions of daily coparenting quality, to address the absence of measures of daily coparenting in the field.

The Usefulness of Daily Diary Designs

The present study made use of daily diary methods to assess daily coparenting quality. Although intensive data designs (such as daily diaries) have some disadvantages—such as potentially greater burden on participants and creating the need for complex analytic approaches—these methods nevertheless are well-suited to approximate the processes that individuals and families experience in their daily lives (Bolger, Davis, & Rafaeli, 2003). Bolger et al. (2003) summarize four important advantages that are offered by daily measures. First, they state that these methods are best able to approximate and measure the natural, spontaneous contexts that participants experience in life. Second, using daily diary methods reduces the likelihood of retrospection, as researchers measure the process closer to the actual occurrence of the process. The potential problem with retrospective point-in-time measures is that participants may misremember or be biased in their recall (e.g., Bower, 1981; Shiffman et al., 1997). Thus, Bolger et al. (2003) argue that daily diary measures are better able to reduce measurement error and therefore improve validity and reliability (also see Shiffman, Stone, & Hufford, 2008).

Third, daily measures allow us to better examine and characterize processes and change across time (Bolger et al., 2003). For example, we may be able to find cycles in family processes across a week or examine how an individual or family adjusts after experiencing a particular event. A key point here is that depending on the temporal design and spacing of assessments, we gain a very different view of the change processes involved (Collins, 2006). In "ideal longitudinal research," it is crucial that research design and data collection efforts match with the researcher's theories of processes and change (Collins, 2006, p. 507). For example, daily diary data are needed
to investigate questions about short-term fluctuation and change. Daily diary data also allow researchers to obtain estimates of processes that we could not otherwise obtain with point-in-time measures, such as variability or the instability in particular processes across a period of time (Ram & Gerstoff, 2009).

Finally, Bolger et al. (2003) note that, with daily diary designs, researchers are better able to examine causes and consequences of everyday experiences. For example, researchers can utilize a within-person approach in which individuals serve as their own controls. In other words, one can examine associations between fluctuations in variables within individuals, regardless of the overall level of these variables. In sum, daily diary designs provide unique advantages which make developing a daily measure of coparenting particularly useful for research.

Studying coparenting at the daily level will better illuminate our understanding of day-to-day family processes, and information gleaned from daily diary studies of coparenting could be used to inform and improve family interventions. For example, if particular daily experiences are found to be the most closely linked to the coparenting that children receive on those days, those factors could be targeted by intervention efforts to enhance the quality of coparenting. Additionally, a daily measure of coparenting would allow us to examine the overall extent of variability or instability from day-to-day in coparenting and the effects of such variability on children, individual parents, and family relationships. Indeed, inconsistency and instability in parenting and family relationships have been linked in prior work to insecure attachment (Belsky & Pasco Fearon, 2008) and to greater strain on couple well-being (Arriaga, 2001).

**The Measurement of Coparenting**

A variety of parent self-report questionnaire measures of coparenting exist. As we developed the *Daily Coparenting Scale* (D-Cop), we carefully examined each of these measures and briefly mention them here. The first survey measure of coparenting was created to examine the quantity and quality of communication about the child between divorced coparents (Ahrons, 1981),
and work examining coparenting in the divorce literature often focused on conflict, triangulation of the child, and coordination between partners across households in regards to rearing the child (e.g., Durst, Wedemeyer, & Zurcher, 1985; Howe, Bishop, Armstrong, & Fein, 1984). In the 1990s, Belsky and McHale and their colleagues brought the study of these types of coparenting processes into intact two-parent, heterosexual families (e.g., Belsky, Crnic, & Gable, 1995; McHale, 1995, 1997). This work and the work of many others since then (e.g., Abidin & Brunner, 1995; Floyd et al., 1998; Margolin, Gordis, & John, 2001; Stright & Bales, 2003; Van Egeren, 2003) have focused on a variety of issues related to parenting with one's partner, such as conflict, triangulation of the child, support, endorsement and mutual respect, cooperation, sharing the burden of discipline, and satisfaction with the division of child care. All of this work was an important beginning to better understand coparenting in two-parent families.

Feinberg (2003) organized this work into a conceptual framework of coparenting, which consisted of four overlapping domains: childrearing agreement, coparenting support/undermining, division of labor, and joint management of family dynamics. Drawing upon the prior work and Feinberg's (2003) conceptual framework, Feinberg, Brown, and Kan (2012) created a comprehensive, multi-domain measure of coparenting (Coparenting Relationship Scale, CRS) which allows researchers to better assess the various dimensions of coparenting. We examined this validated measure carefully when creating items for our daily measure of coparenting, and adapted many of the items on our daily measure from the items on the CRS. We also utilize the CRS as one point from which to provide initial validity for our daily measure in the current study.

Furthermore, in this prior literature the coparenting relationship has been conceptualized at the center of parent, child, and family interactions and well-being (e.g., Feinberg, 2003). For example, coparenting is influenced by contextual characteristics such as the quality of the pre-existing couple relationship which sets the tone for the development of the coparenting relationship (Van Egeren, 2004), by parent characteristics such as depression that influence how
parents behave in close relationships (McDaniel & Teti, 2012), and by child characteristics such as temperament that may pose challenges for the coparental dyad (Davis, Schoppe-Sullivan, Mangelsdorf, & Brown, 2009). As a central family dynamic, coparenting also acts as a mediator through which the quality of the couple relationship spills over into individual parenting quality (Margolin et al., 2001) and influences child behavior problems (Schoppe et al., 2001). Accordingly, established measures of coparenting have linked greater coparenting quality with greater couple relationship quality, fewer parent depressive symptoms, and fewer child behavior problems (e.g., Feinberg et al., 2012; McDaniel & Teti, 2012; Schoppe et al., 2001; Schoppe-Sullivan et al., 2004). Therefore, to further establish the validity of our daily coparenting measure we examined whether our measure related to these factors in similar ways as an already validated measure of coparenting (CRS).

**Development of the Daily Coparenting Scale (D-Cop)**

In daily diary studies, measures must often be kept brief as to not overly burden participants across days. Thus, we did not seek to create a measure of coparenting with subscales that map onto several domains of coparenting, such as Feinberg et al.’s (2012) CRS. Instead, we limited our measure to 10 items (see Appendix A), which allowed us to obtain a sampling of the range of possible feelings and behaviors that parents may encounter while working cooperatively together (or in conflict with each other) during parenting on a daily basis. However, the items provide fairly comprehensive coverage of the range of coparenting-related constructs, as we touched on many of the dimensions that have been measured by prior research, such as the solidarity of the parenting team, cooperation, support, endorsement, disagreement, undermining, and fairness in the division of childcare tasks. Additionally, to further reduce participant burden, items were kept short and some items adapted from the CRS were shortened. For example, "When I'm at my wits end as a parent, partner gives me extra support I need" (from the CRS, Feinberg et al., 2012) was adapted to read "We supported one another in parenting."
In developing items, we focused on coparenting feelings or behaviors that likely happen on a daily or almost daily basis. For example, some of the items from already validated coparenting scales could not be included on a daily measure as they ask parents to think more broadly than the daily context, such as "Parenting has given us a focus for the future" from the CRS (Feinberg et al., 2012). Furthermore, researchers have found that negative dimensions of coparenting—such as coparenting conflict or undermining—were rated as occurring quite infrequently on average (i.e., less than once or twice a week) (Feinberg et al., 2012). Thus, we included fewer negative coparenting items than positive coparenting items (3 negative items vs. 7 positive items) in order to maximize our ability to examine even minor changes in coparenting on a daily basis. Additionally, to further refine the negative items we did not ask parents to rate whether they undermine each other in their parenting (as has been done in prior work, such as Feinberg et al., 2012), because of the strong negative connotation of this word. Instead, we modified negative items to be milder in tone, such as "We got upset with each other over a parenting issue."

Apart from one item, which focused on the individual parent's feelings about the parenting team, the other 9 items use the pronoun "we" to focus on interactions and behaviors that have occurred between parents, instead of focusing on behaviors that only one partner exhibited. This is important as many other coparenting measures (e.g., Feinberg et al., 2012) often only have the participant rate the coparenting behaviors of the partner or are inconsistent regarding whether the participant is rating the coparenting behavior of the respondent or the partner.

Additionally, we focused on the quality of the daily coparenting relationship as opposed to the quantity or simple occurrence of coparenting interactions. We utilized a 7-point Likert type response scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree), because we believed parents could have a range of feelings about coparenting interactions—even if some of the items could sometimes be answered with a yes or no. For instance, item 9 is "We trusted one another's
"If we limited parents to yes or no, we would be less able to capture the small instances of coparenting discord that likely occur in low-risk, non-clinical samples. In other words, a 7-point scale allows us to better capture the small variations that parents may experience on a day-to-day basis in their coparenting feelings.

The Current Study

For the current study, we developed the Daily Coparenting Scale (D-Cop), a 10-item daily diary measure of parents' perceptions of the quality of coparenting. The purpose of the current study was to establish the initial reliability and validity of the D-Cop. We therefore utilized the measure on a sample of 174 families with a young child, examined the factor structure at the between- and within-person level, calculated the reliability of assessing within-person changes in daily coparenting (e.g., Shrout & Lane, 2012), and descriptively explored the individual items and overall D-Cop scale.

To establish the validity of the D-Cop, we (a) examined whether an established measure of coparenting (CRS; Feinberg et al., 2012) was related to average levels of daily coparenting, (b) examined whether couple relationship quality, parent depressive symptoms, and child behavior problems significantly related to average levels of daily coparenting, and (c) examined whether daily coparenting quality fluctuated within individuals across days as predicted by fluctuations in daily feelings about the couple relationship. As mentioned earlier in the Introduction, prior work has linked greater coparenting quality to greater couple relationship quality, fewer parent depressive symptoms, and fewer child behavior problems (e.g., Feinberg et al., 2012; McDaniel & Teti, 2012; Murphy et al., 2016; Schoppe et al., 2001; Schoppe-Sullivan et al., 2004). Therefore, a valid measure of daily coparenting should be related to these factors. Additionally, daily fluctuations in the D-Cop should be related to daily fluctuations in couple relationship feelings, because the couple relationship is intimately tied to the functioning of the coparenting
relationship (Minuchin, 1985) and many prior studies have shown positive associations between coparenting and relationship quality (e.g., McHale, 1995; Schoppe-Sullivan et al., 2004).

Method

Procedure and Participants

Participants included both mothers and fathers from 174 heterosexual couples with a young child who were a part of the Daily Family Life Project (DFLP). Participants were currently living together in the United States and had a child age 5 or younger ($M = 2.88$ years, $SD = 1.33$; 55% female). We recruited 183 families through three primary sources: (1) a database of families across the state of Pennsylvania who had expressed that they were willing to be contacted by researchers, (2) announcements on parenting websites and listserves, and (3) flyers in community buildings such as family doctor offices. As data collection was conducted online, families were not required to live in the state in which the study took place. Families resided in the following U.S. regions: 52% Northeast, 17% West, 16% South, and 15% Midwest.

In terms of relationship length, participants ranged from 2 to 23 years, with 92% in a relationship of 5 years or longer ($M = 9.99$ years, $SD = 4.07$). Most were Caucasian (93% for mothers, 89% for fathers), married (95%), had a Bachelor's degree or higher (76% of mothers, 68% of fathers), and were not currently attending school (80%); 57% had more than one child. On average, mothers were 31.52 years old ($SD = 4.41$; range 20 to 42), husbands were 33.31 ($SD = 5.04$; range 22 to 52), and median yearly household income was approximately $69,000 ($M = $74,000, $SD = $39,000), but ranged extensively from no income to $250,000 with 21% of families reporting they were on some form of federal aid (e.g., medical assistance, food stamps, etc.). Also, 68% of mothers and 91% of fathers currently worked for pay (weekly work hours for mothers, $M = 31.46$, $SD = 14.09$; for fathers, $M = 41.69$, $SD = 11.56$).

Participants were assigned a unique ID number which they used each day they entered responses into our online survey. This ID number was able to link partners within families and
participants across days. After study enrollment and informed consent, participants first completed a baseline online survey via a secure server. This survey measured demographic characteristics, baseline coparenting quality (CRS), relationship quality, parent depressive symptoms, and child behavior problems. Then, approximately two weeks after finishing their baseline survey ($M = 17.87$ days, $SD = 9.38$) participants completed 14 consecutive days of the \textit{Daily Coparenting Scale} (D-Cop) and other daily measures before bed. There were 21 participants who dropped out or who did not complete any daily surveys, yielding a sample of 345 parents (174 women and 171 men from 174 families). Of those who completed at least one day of the daily surveys (95\% of full sample), participants completed an average of 11.76 days ($SD = 2.94$ days), with 87\% completing 10 or more days, for a total of 4058 person-days of data.

**Baseline Measures**

**Coparenting Quality.** On the baseline survey about 2 weeks before the daily surveys began, participants completed the \textit{Coparenting Relationship Scale} (CRS, Feinberg et al., 2012). This measure includes 35 items that assess a variety of subdomains within coparenting, including support, undermining, agreement, endorsement of partner's parenting, closeness, division of labor, and child exposure to conflict. Example items include "My partner and I have different ideas about how to raise our child" and "When I’m at my wits end as a parent, partner gives me extra support I need." Participants respond to all items on a 7-point scale ranging from 0 (\textit{Not true of us}) to 7 (\textit{Very true of us}), except for the child exposure to conflict items which are measured on a 7-point scale that ranges from 0 (\textit{Never}) to 7 (\textit{Very often, several times a day}). Negatively worded items were reverse scored and then items were averaged, with higher scores indicating higher quality coparenting (Cronbach's alpha = .94 for both mothers and fathers). To correspond with the subscales of our daily coparenting measure, we also created a positive coparenting score (i.e., support, agreement, endorsement, closeness, division of labor; 24 items; Cronbach’s alpha = .93 for mothers, .91 for fathers) and negative coparenting score (i.e., undermining and exposure to
conflict; 11 items; Cronbach’s alpha = .87 for mothers, .90 for fathers). Feinberg and his colleagues (2012) have demonstrated the CRS to be a reliable and valid measure of coparenting. The overall, positive, and negative CRS scores all showed good internal consistency in the current study as well.

**Relationship Quality.** Participants also completed the *Quality of Marriage Index* (QMI; Norton, 1983) which we adapted to apply to all couples by changing "spouse" to "partner" and "marriage" to "relationship." This measure contains 5 items (e.g., "We have a good relationship") measured on a 7-point scale ranging from 1 (*Very strongly disagree*) to 7 (*Very strongly agree*). Then, the final item asks participants "All things considered, what degree of happiness best describes your relationship?" which participants rate on a 10-point scale, ranging from 1 (*Unhappy*) to 10 (*Perfectly happy*). All items were summed to produce an overall relationship quality score for each participant (Cronbach's alpha = .96 for mothers and .95 for fathers).

**Depressive Symptoms.** Participants rated how often they felt 20 symptoms during the past week relating to depressed mood (e.g., "I felt depressed" and "I could not get going") on the Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977). They responded on a 4-point scale ranging from 0 (*Rarely or none of the time—less than 1 day*) to 3 (*Most or all of the time—5 to 7 days*). Positively worded items were reverse scored, and then all items were summed to produce an overall score. Higher scores indicate experiencing depressive symptoms more frequently (Cronbach's alpha = .89 for both mothers and fathers).

**Child Behavior Problems.** Participants responded to 60 items from the Child Behavior Checklist (CBCL; Achenbach & Rescorla, 2000) which made up the internalizing (36 items) and externalizing scales (24 items). They responded to each item concerning their child now or within the past two months on a 3-point scale: 0 (*Not true, as far as you know*), 1 (*Somewhat or sometimes true*) and 2 (*Very true or often true*). Internalizing is made up of items relating to the child being emotionally reactive, anxious or depressed, experiencing somatic complaints, or being
withdrawn (e.g., “whining,” “sulks a lot,” “feelings are easily hurt,” and “shows little interest in things around him/her”). Externalizing relates to attention and aggression problems (e.g., “can’t sit still, restless, or hyperactive,” “easily frustrated,” “temper tantrums or hot temper,” and “screams a lot”). Within each scale, items were summed to produce separate internalizing or externalizing ratings for each participant (Cronbach’s alpha for internalizing = .90 for mothers, .88 for fathers; alpha for externalizing = .92 for mothers, .93 for fathers).

Daily Measures

Daily Coparenting Scale (D-Cop). As explained in the Introduction, this scale includes 10 items that were created based on a careful review of the coparenting literature. We limited our measure to 10 items as to not overly burden participants (see Appendix A for a complete list of the items), which allowed us to obtain a sampling of possible coparenting-related feelings and behaviors that parents may encounter on a daily basis. Across the items, we inquired into their daily experience of the solidarity of the parenting team, cooperation, support, endorsement, disagreement, undermining, and fairness in the division of childcare tasks. Participants were asked to select the response to each item that best describes the way he/she feels about how they worked together as parents today. They responded on a 7-point Likert type scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree). Example items include "We cooperated in parenting" and "We upheld each other's rules and limits to the child." Negatively worded items were reverse coded, and then all item responses were averaged for each day to produce an overall coparenting score for each day. We also examined the average score across the 7 positive coparenting items, and the average score across the 3 negative items, as the multilevel factor analysis presented in the Results (see Table 1-3) indicated a positive and negative factor. The scales showed good internal consistency on average (for the overall D-Cop, average Cronbach's alpha across all days = .89 for mothers and .89 for fathers; for positive coparenting, average Cronbach's alpha across all days = .92 for mothers and .94 for fathers; for negative coparenting, average Cronbach's alpha
across all days = .76 for mothers and .76 for fathers). Reliability estimates for assessing within-person change are reported in the results section.

**Daily Relationship Feelings.** On a daily basis, participants also rated how they felt that day about their relationship with their partner in terms of love, closeness, satisfaction, commitment, conflict, and ambivalence (Curran, McDaniel, Pollitt, & Totenhagen, 2015; Totenhagen, Serido, Curran, & Butler, 2012). Participants responded on a 7-point scale ranging from 1 (*not very much or just a little*) to 7 (*very much or a lot*). Example items include "Today, how satisfied were you with your relationship with your partner?" and "Today, how much conflict did you have with your partner?" Negative items were reversed scored and then all items were averaged, with higher scores indicating a more positive assessment of the relationship on that day (average Cronbach's alpha across all days = .86 for mothers and .87 for fathers). In our analyses, daily relationship quality was split into person-centered scores (within-person fluctuations around their mean level) and individual mean scores across days (between-person average).

**Results**

**D-Cop Item and Overall Scale Descriptive Information**

We examined the within-person means, within-person standard deviations, as well as the within-person correlations across the 14 days on each of the 10 items. Means and standard deviations can be found in Table 1-1. Within-person means were calculated by averaging each individual's scores across the 14 days, and within-person standard deviations represent the amount of variability within individuals' scores across the 14 days. The within-person estimates in Table 1-1 represent the average values for these statistics across all participants. The average within-person mean on the overall D-Cop was 5.98 (*SD* = 0.73), indicating that on average participants in our sample felt positively about their daily coparenting. The average within-person SD on the overall D-Cop score was 0.53 (*SD* = 0.33), which indicates that there was variability
from day-to-day within individuals' D-Cop scores and that individuals differed in the extant of daily variability they experienced.

We report within-person correlations in Table 1-2, which represent the correlations among the within-person portions of the items (i.e., daily deviations above and below a participant's overall average level across the 14 days on that item). A significant within-person correlation can be interpreted as indicating that on days when individuals deviate from their average level of an item they also tend to deviate (consistently in one or the other direction) from their average level of another item. Correlations are not reported on the raw data which would confound the different levels of variation in our daily data (i.e., between-person with within-person), and we could not distinguish whether the correlations were significant at the within-person level, between-person level, or both. To examine the within-person correlations, we used a multilevel structural equation model (MSEM) in MPlus (see Muthen, 1994; Wright et al., 2015), allowing the items to freely covary at both the between- and within-person levels, and then examined the standardized model results at the within-person level. The total variance in each of the items was latently split by MPlus. This model allowed us to account for the nesting in our data (e.g., parents across days) while appropriately calculating significance levels for the within-person correlations. Almost all within-person correlations were significant for both mothers and fathers, which indicates that within-person fluctuations across days in one item tended to also be related to similar fluctuations in other items on the D-Cop. The positive coparenting items (1, 2, 3, 4, 7, 8, and 9) often related strongly to one another. The negative coparenting items (5, 6, and 10) related moderately to one another, and had the lowest correlations with the positive items. Mothers' and fathers' daily ratings within families were also significantly related, such that on days when mothers rated coparenting as better than her average fathers also tended to rate coparenting as better than his average (see Table 1-2 on the diagonal).
We ran “empty” multilevel models (i.e., with no predictors) with each item or overall D-Cop score as the outcome, which allowed us to calculate the intraclass correlations (ICC) for each item or overall score. The ICC provides an estimate of the proportion of variability in the item or D-Cop score that is attributable to between-person differences in level. We report the ICCs in Table 1-1. ICCs ranged from .29 to .56, indicating that there was a substantial amount (44% to 71%) of variability tied to within-person differences across days. This level of within-person variability suggests that we captured variability in parents' feelings about daily coparenting and that it is important to examine both between- and within-person variation in daily coparenting (as there is variability at both levels).

**Assessing the Factor Structure of the D-Cop**

Due to our data having variation at multiple levels (e.g., days, persons), we examined the factor structure of the D-Cop at both the between- and within-person level for men and then for women utilizing an exploratory multilevel factor analysis in MPLUS (Muthen & Muthen, 2007; also see Mogle et al., 2015). The same factor structure emerged for both men and women. We selected the model with two between-person and two within-person factors, as this model produced the best fit to the data (for men, $\chi^2 (52) = 417.01, p < .001; \text{RMSEA} = .05; \text{CFI} = .97; \text{SRMR between} = .01; \text{SRMR within} = .03$; for women, $\chi^2 (52) = 386.15, p < .001; \text{RMSEA} = .05; \text{CFI} = .97; \text{SRMR between} = .02; \text{SRMR within} = .03$). We report the rotated factor loadings in Table 1-3. Items 1, 2, 3, 4, 7, 8, and 9 loaded onto one factor, reflecting positive daily coparenting (e.g., cooperation, support, upholding rules), and items 5, 6, and 10 loaded onto the other factor, reflecting negative daily coparenting (e.g., disagreement, hostility). The results indicated that this factor structure existed at both the between level (e.g., some parents were more positive in their coparenting than others) and within level (e.g., on days when mothers rated more support, they are likely to rate more cooperation). This two-factor structure also indicates that
positive and negative coparenting can vary somewhat distinctly between parents as well as within an individual parent over days.

**Reliability of the Daily Coparenting Scale (D-Cop)**

To establish the reliability of our measure to capture within-person changes in daily coparenting, we calculated the within-person reliability coefficient ($R_c$) for intensive longitudinal data as outlined by Shrout and Lane (2012) and Mogle, Almeida, and Stawski (2015). This index is based on generalizability theory and decomposes the variability in the daily coparenting scores into its variance components (e.g., variance across days, across participants, across items, etc.) using an ANOVA approach. A multilevel modeling approach can also be used but we found the reliability estimates to be the same and therefore used a simple ANOVA approach. In general, we would desire that our daily measure be able to capture within-person changes across days and between-person differences in these within-person changes (Bolger & Laurenceau, 2013). The reliability coefficient is then calculated by taking the day X participant variance and dividing this by the day X participant variance plus the error variance divided by the number of items (see the equation below).

$$R_c = \frac{\sigma_{\text{day \times participant}}^2}{\sigma_{\text{day \times participant}}^2 + \left( \frac{\sigma_{\text{error}}^2}{\# \text{ of items}} \right)}$$

Some have suggested that this is the most important reliability coefficient to examine in daily measures, as researchers often wish to use daily measures to examine within-person associations and fluctuations from day-to-day (Bolger & Laurenceau, 2013). The D-Cop showed good reliability for assessing within-person change in daily positive coparenting (7 items; $R_c = .88$ and .87 for women and men respectively), daily negative coparenting (3 items; $R_c = .67$ and .65), and daily overall coparenting (10 items; $R_c = .83$ and .82).

**Assessing the Validity of the D-Cop**
To examine validity, we first examined correlations between average daily coparenting quality (overall, positive, and negative) and baseline coparenting quality (overall, positive, and negative; measured by the CRS), couple relationship quality, parent depressive symptoms, and child internalizing and externalizing behavior problems. These correlations are presented in Table 1-4. Average daily coparenting scores were highly correlated with the already established measure of coparenting (CRS). In Table 1-4, we also presented the correlations between the established measure of coparenting (CRS) and couple relationship quality, parent depressive symptoms, and child behavior problems. The correlations between average D-Cop scores and couple relationship quality, parent depressive symptoms, and child behavior problems were similar to those found between the already established measure of coparenting and these other factors. These correlations suggest that our daily measure is functioning as expected.

We then ran two-intercept multilevel models (MLM; as recommended for dyadic daily data by Bolger & Laurenceau, 2013) predicting overall, positive, and negative daily coparenting quality by baseline coparenting quality measured by the CRS and by daily couple relationship feelings. MLM is utilized to account for the nested nature of the data (time within parents within families), and we created dummy codes for mothers and fathers so that estimates for each could be modeled simultaneously.

To examine within-person associations between daily variables in the MLM, Bolger and Laurenceau (2013) suggest splitting daily predictors into a between-person portion (trait) and within-person portion (state). This is done by (1) grand mean centering the daily variable, (2) calculating the mean level in that variable across days within individuals (trait), and (3) subtracting the trait variable from each individual's daily scores on that variable (state). Thus, the trait portion measures between-person differences in that predictor; the state portion measures within-person fluctuations around their own average trait level in that variable; and the trait and state variable are uncorrelated. We included the state relationship feelings variable as a predictor
in our model, as we were most interested in validating that on days when relationship quality is better coparenting quality should also be better. The MLM equations are presented here for mothers (these equations were estimated simultaneously for fathers as well):

**Level 1:** \( \text{Coparenting}_{ti} = \beta_{0i} + \beta_{1i}\text{Day}_{ti} + \beta_{2i}\text{State Relationship Feelings}_{ti} + e_{ti} \)

**Level 2:** \( \beta_{0i} = \gamma_{00} + \gamma_{01}\text{Baseline Coparenting}_{i} + \mu_{0i} \)

\[ \beta_{1i} = \gamma_{10} \]

\[ \beta_{2i} = \gamma_{20} + \mu_{2i} \]

At Level 1, the equation describes the within-person relation of daily coparenting quality \( (\text{Coparenting}_{ti}) \) to the daily predictor state relationship feelings \( (\beta_{2i}) \). The predicted value for coparenting quality for each individual "i" on a given occasion "t" is a function of the individual's average coparenting quality on day 1 (intercept, \( \beta_{0i} \)), the linear slope of day (\( \beta_{1i} \)), daily fluctuations around the individual's average relationship feelings (\( \beta_{2i} \)), and residual variation in coparenting quality \( (e_{ti}) \).

At level 2, we entered the between-person predictor, baseline coparenting quality, and between-person random effects. The average coparenting quality score \( (\beta_{0i}) \) is a function of the sample average coparenting quality score \( (\gamma_{00}) \), baseline coparenting quality \( (\gamma_{01}) \), and random variation around the sample average \( (\mu_{0i}) \). The linear slope in coparenting quality over days \( (\beta_{1i}) \) is the average sample linear slope across days \( (\gamma_{10}) \). The effect of state relationship feelings \( (\beta_{2i}) \) is a function of the sample average state relationship feelings effect \( (\gamma_{20}) \) and random variation \( (\mu_{2i}) \).

In Table 1-5, we present the unstandardized estimates of the fixed effects from our three MLMs (predicting overall, positive, and negative daily coparenting). The expected relations emerged with higher baseline coparenting (CRS) scores related to higher average overall, positive, and negative daily coparenting scores for both mothers \( (\gamma_{01} = 0.67, 0.73, \text{ and } -0.51, p_s < \)
.001) and fathers ($r_{01} = 0.56, 0.57, \text{and} -0.54, ps < .001$). On days when couple relationship feelings were more positive, overall, positive, and negative daily coparenting scores were also higher for mothers ($r_{20} = 0.50, 0.50, \text{and} -0.45, ps < .001$) and fathers ($r_{20} = 0.44, 0.46, \text{and} -0.40, ps < .001$). These results also lend validity to the D-Cop and its scales as a measure of daily coparenting.

**Discussion**

To our knowledge, no prior studies have examined how coparenting—the ways that parents work together in rearing their children (Feinberg, 2003)—might change on a more intensive time scale than years or months. Therefore, we developed the *Daily Coparenting Scale* (D-Cop), a 10 item measure of parents' perceptions of daily coparenting quality. We then utilized this measure on a sample of 174 heterosexual, two-parent families who had at least one young child. The results of the current study are encouraging and lend some weight to the reliability and validity of the D-Cop as a measure of overall, positive, and negative daily coparenting quality. The results also suggest that, although an overall D-Cop score can be reliably created and used, positive and negative coparenting may function somewhat distinctly across individuals and within individuals across days. The current study was an important first step in assessing daily coparenting quality, and we suggest that future studies examining predictors and outcomes of daily coparenting quality will further elucidate the measure's usefulness.

Utilizing the D-Cop, we confirmed that parents' feelings about coparenting do indeed fluctuate on a daily basis and that these daily fluctuations coincide with similar daily fluctuations in their feelings regarding the quality of the couple relationship (i.e., feelings of love, commitment, conflict, etc.). Looking to future work, the D-Cop allows us to capture estimates of processes that we could not otherwise obtain with point-in-time measures, such as daily variability (or instability) in coparenting processes (Ram & Gerstoff, 2009). Future work should explore (a) the various daily factors (such as child-induced parenting stressors, work and life
stressors, etc.) that may influence the quality of daily coparenting that children and parents experience, (b) why some families experience greater variability (or instability) in their daily coparenting as compared with other families, and (c) what low vs. high levels of daily variability in coparenting might mean for family and child outcomes.

A knowledge of the factors that are most influential for the quality of daily coparenting could be used to better inform prevention and intervention efforts with families. If we can find ways to enhance these positive daily factors, or buffer against the effects of daily negative factors, then we could further improve and stabilize the quality of coparenting that children experience on a daily basis. We suggest that greater variability in coparenting is likely detrimental to family relationships and child outcomes, and this assertion should be tested by future work. For example, attachment theory would suggest that instability in the parent-child relationship would be a risk factor for greater insecurity in parent-child attachment, as the child may struggle to utilize the parent as a secure base from which to explore the world and in extreme cases may both desire and fear proximity to the parent (Sroufe & Waters, 1977). In other research, inconsistency and instability in parenting and family relationships have been linked to insecure attachment (Belsky & Pasco Fearon, 2008) and to greater strain on individual and couple well-being (Arriaga, 2001).

The D-Cop will likely be useful in examining the reciprocal relations between the couple and coparenting relationship within the family. From a family systems perspective, both the couple relationship and the coparenting relationship are subsystems within the broader family whole separated by permeable boundaries (Minuchin, 1974; Cox & Paley, 1997); therefore we would expect functioning in one to be inherently tied to the other and research on coparenting has generally supported this view (e.g., McHale, 1995; Schoppe-Sullivan et al., 2004). Indeed, the current study found that daily coparenting quality was linked to daily couple relationship quality. Future work could expand on this to examine the directionality of effects between daily coparenting and relationship quality.
The D-Cop may be particularly useful for examining the impact of particular discrete events or stressors on changes and adaptations in the coparenting subsystem, because daily measures are often useful for characterizing changes across time (e.g., Bolger et al., 2003). Examining the family system with the D-Cop in relation to particular events should help to elucidate how we can best assist families to create or maintain strong relationships as they experience stressful events. Some events that could be examined include: the transition to first-time parenthood; the birth of a sibling; the child’s attainment of developmental milestones such as walking (as it has been hypothesized that as children age parents must work together more actively to set limits on the child; McHale & Rotman, 2007; Van Egeren, 2003); and reintegration of a parent into the family after military deployment. The measure could also be used to assess change in coparenting before, during, and after parenting programs as families attempt to implement the programs in their everyday lives (e.g., Bamberger, Coatsworth, & Ram, 2014).

We caution however that this measure should not simply be used because daily diary or ecological momentary assessment research is a hot topic. In "ideal longitudinal research," it is crucial that our research designs and data collection efforts match with our theories of processes and change (Collins, 2006, p. 507). Thus, at times daily diary data is needed to answer our questions more fully, whereas at other times a more traditional cross-sectional or longitudinal design may work best. Often, researchers find it useful to also embed bursts of daily diaries into more traditional longitudinal designs (Sliwinski, 2008).

We examined the reliability and validity of the overall, positive, and negative D-Cop scores restricting our data to only 7 days of reports instead of 14 days (results not presented). Although we originally sampled across 14 days due to concerns about negative coparenting behaviors being relatively rare especially in low-risk, non-clinical samples (as was found for example in cross-sectional coparenting ratings in Feinberg et al., 2012), we found the same results with only 7 days of data with very minor differences from the 14-day estimates presented.
in this article. These results suggest that our measure successfully discriminated small variations in daily coparenting quality and therefore can also be utilized in studies that collect fewer days of participant reports.

We note several limitations of the current study. Although we had data from both parents within these families and our sample ranged greatly in their geographical residence and income, the sample was fairly homogeneous in terms of ethnicity and education (majority were White and many had at least an Associate's degree). It may be that families of lower socioeconomic status are more at risk for spillover from various stressors within the family system into the quality of daily coparenting, as multiple risk factors may already be present. Thus, future work should examine daily coparenting in these other contexts as well. We find it encouraging however that our daily measure related to other important factors—such as couple relationship quality, parent depressive symptoms, and child behavior problems—in similar ways to an already established coparenting measure in the literature (the CRS; Feinberg et al., 2012). Moreover, as with any survey research, it is not clear how the results of these daily coparenting ratings would relate to observations of parents' actual coparenting behaviors across days. Future research could examine this because some researchers have found that coparenting ratings and observed behaviors do not always coincide (Van Egeren, 2004).

**Conclusion & Practical Implications**

In the current study, we found evidence suggesting that the *Daily Coparenting Scale* (D-Cop) and its subscales are reliable and valid measures of parents' feelings about coparenting on a daily basis. We found that parents' feelings about their coparenting relationship fluctuated on a daily basis and that daily coparenting quality was linked positively to daily relationship quality. As coparenting has been linked to long-term couple outcomes such as marital quality and child outcomes such as internalizing/externalizing behaviors, attachment security, and academic success (e.g., Schoppe-Sullivan et al., 2004; Teubert & Pinquart, 2010), it is important to also
examine coparenting at the daily level. Future work using this measure to study coparenting at the daily level will illuminate our understanding of the day-to-day family processes that lead to the best outcomes for children and families.
References


Table 1-1.

Daily Coparenting Scale (D-Cop) Items and Descriptives

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<thead>
<tr>
<th>Item</th>
<th>Raw Mean</th>
<th>Raw SD</th>
<th>Within-Person Means</th>
<th>Within-Person SDs</th>
<th>ICC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I felt like part of a real parenting team.</td>
<td>5.89</td>
<td>(1.21)</td>
<td>5.85</td>
<td>(0.92)</td>
</tr>
<tr>
<td>2.</td>
<td>We cooperated in parenting.</td>
<td>6.02</td>
<td>(1.10)</td>
<td>5.98</td>
<td>(0.84)</td>
</tr>
<tr>
<td>3.</td>
<td>We supported one another in parenting.</td>
<td>6.04</td>
<td>(1.09)</td>
<td>5.99</td>
<td>(0.84)</td>
</tr>
<tr>
<td>4.</td>
<td>We divided parenting tasks fairly.</td>
<td>5.49</td>
<td>(1.51)</td>
<td>5.48</td>
<td>(1.07)</td>
</tr>
<tr>
<td>5.</td>
<td>We had different ideas about parenting. (R)</td>
<td>2.27</td>
<td>(1.62)</td>
<td>2.31</td>
<td>(1.08)</td>
</tr>
<tr>
<td>6.</td>
<td>We were critical or hostile with each other around parenting. (R)</td>
<td>1.67</td>
<td>(1.27)</td>
<td>1.75</td>
<td>(0.94)</td>
</tr>
<tr>
<td>7.</td>
<td>We upheld each other's rules and limits to the child.</td>
<td>5.95</td>
<td>(1.20)</td>
<td>5.90</td>
<td>(0.83)</td>
</tr>
<tr>
<td>8.</td>
<td>We were able to ask each other for help with parenting.</td>
<td>5.80</td>
<td>(1.32)</td>
<td>5.77</td>
<td>(0.92)</td>
</tr>
<tr>
<td>9.</td>
<td>We trusted one another's parenting.</td>
<td>6.18</td>
<td>(1.02)</td>
<td>6.13</td>
<td>(0.82)</td>
</tr>
<tr>
<td>10.</td>
<td>We got upset with each other over a parenting issue. (R)</td>
<td>1.79</td>
<td>(1.39)</td>
<td>1.85</td>
<td>(0.91)</td>
</tr>
</tbody>
</table>

| Overall Daily Coparenting Score | 5.96 | (0.91) | 5.92 | (0.75) | 0.55 | (0.31) | 0.56 |
| Positive Daily Coparenting Score (7 items) | 5.91 | (1.01) | 5.87 | (0.82) | 0.61 | (0.40) | 0.53 |
| Negative Daily Coparenting Score (3 items) | 1.91 | (1.18) | 1.97 | (0.88) | 0.78 | (0.50) | 0.43 |

*Note: Within-person statistics are based on the means and standard deviations across the 14 days within individual participants, whereas raw statistics are based on the simple average or standard deviation across all participants and all days. Those numbers in parentheses are the standard deviations around these various estimates. Items were measured on a 7-point scale ranging from 1 (Strongly disagree) to 7 (Strongly agree). Items 5, 6, and 10 are reverse coded when combined into the overall score. ICC = intraclass correlation, or proportion of variance at between-level.
<table>
<thead>
<tr>
<th>D-Cop Item</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>D-Cop Score</th>
<th>Positive D-Cop</th>
<th>Negative D-Cop</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I felt like part of a real parenting team.</td>
<td>.27</td>
<td>.84</td>
<td>.77</td>
<td>.55</td>
<td>-.08⁺</td>
<td>-.16</td>
<td>.40</td>
<td>.63</td>
<td>.53</td>
<td>-.23</td>
<td>.78</td>
<td>.85</td>
<td>-.25</td>
</tr>
<tr>
<td>2. We cooperated in parenting.</td>
<td>.81</td>
<td>.27</td>
<td>.84</td>
<td>.55</td>
<td>-.09⁺</td>
<td>-.18</td>
<td>.43</td>
<td>.64</td>
<td>.57</td>
<td>-.25</td>
<td>.80</td>
<td>.87</td>
<td>-.28</td>
</tr>
<tr>
<td>3. We supported one another in parenting.</td>
<td>.74</td>
<td>.82</td>
<td>.26</td>
<td>.51</td>
<td>-.09⁺</td>
<td>-.21</td>
<td>.43</td>
<td>.60</td>
<td>.58</td>
<td>-.27</td>
<td>.80</td>
<td>.84</td>
<td>-.30</td>
</tr>
<tr>
<td>4. We divided parenting tasks fairly.</td>
<td>.48</td>
<td>.51</td>
<td>.53</td>
<td>.25</td>
<td>-.03⁺</td>
<td>-.10</td>
<td>.32</td>
<td>.48</td>
<td>.34</td>
<td>-.11</td>
<td>.62</td>
<td>.71</td>
<td>-.14</td>
</tr>
<tr>
<td>5. We had different ideas about parenting.</td>
<td>-.08⁺</td>
<td>-.08⁺</td>
<td>-.08⁺</td>
<td>-.05⁺</td>
<td>.11</td>
<td>.36</td>
<td>-.09</td>
<td>-.04⁺</td>
<td>-.13</td>
<td>.34</td>
<td>-.43</td>
<td>-.15</td>
<td>.76</td>
</tr>
<tr>
<td>6. We were critical or hostile with each other around parenting.</td>
<td>-.15</td>
<td>-.17</td>
<td>-.18</td>
<td>-.08</td>
<td>.37</td>
<td>.18</td>
<td>-.08⁺</td>
<td>-.10⁺</td>
<td>-.17</td>
<td>.52</td>
<td>-.51</td>
<td>-.24</td>
<td>.77</td>
</tr>
<tr>
<td>7. We upheld each other's rules and limits to the child.</td>
<td>.38</td>
<td>.43</td>
<td>.44</td>
<td>.27</td>
<td>-.11</td>
<td>-.10</td>
<td>.12</td>
<td>.42</td>
<td>.46</td>
<td>-.15</td>
<td>.57</td>
<td>.61</td>
<td>-.18</td>
</tr>
<tr>
<td>8. We were able to ask each other for help with parenting.</td>
<td>.51</td>
<td>.53</td>
<td>.57</td>
<td>.47</td>
<td>-.08</td>
<td>-.15</td>
<td>.40</td>
<td>.21</td>
<td>.52</td>
<td>-.15</td>
<td>.69</td>
<td>.78</td>
<td>-.16</td>
</tr>
<tr>
<td>9. We trusted one another's parenting.</td>
<td>.52</td>
<td>.58</td>
<td>.60</td>
<td>.36</td>
<td>-.13</td>
<td>-.21</td>
<td>.49</td>
<td>.48</td>
<td>.18</td>
<td>-.26</td>
<td>.67</td>
<td>.68</td>
<td>-.31</td>
</tr>
<tr>
<td>10. We got upset with each other over a parenting issue.</td>
<td>-.21</td>
<td>-.23</td>
<td>-.23</td>
<td>-.12</td>
<td>.32</td>
<td>.46</td>
<td>-.16</td>
<td>-.17</td>
<td>-.29</td>
<td>.24</td>
<td>-.57</td>
<td>-.30</td>
<td>.79</td>
</tr>
<tr>
<td>Overall Daily Coparenting (D-Cop) Score</td>
<td>.72</td>
<td>.77</td>
<td>.77</td>
<td>.60</td>
<td>-.45</td>
<td>-.52</td>
<td>.58</td>
<td>.66</td>
<td>.70</td>
<td>-.56</td>
<td>.35</td>
<td>.92</td>
<td>-.65</td>
</tr>
<tr>
<td>Positive Daily Coparenting Score (7 items)</td>
<td>.81</td>
<td>.85</td>
<td>.86</td>
<td>.70</td>
<td>-.13</td>
<td>-.22</td>
<td>.64</td>
<td>.75</td>
<td>.72</td>
<td>-.28</td>
<td>.90</td>
<td>.32</td>
<td>-.29</td>
</tr>
<tr>
<td>Negative Daily Coparenting Score (3 items)</td>
<td>-.21</td>
<td>-.23</td>
<td>-.24</td>
<td>-.13</td>
<td>.76</td>
<td>-.18</td>
<td>-.19</td>
<td>-.30</td>
<td>.77</td>
<td>-.67</td>
<td>-.27</td>
<td>.25</td>
<td></td>
</tr>
</tbody>
</table>

Note: Almost all within-person correlations were significant ($p < .05$, and majority were $p < .0001$), except those marked with a "⁺" which were trends or non-significant. Mothers' within-person correlations are displayed above the diagonal, while fathers are below the diagonal. Within-person correlations between mothers and fathers are bolded, italicized, and displayed on the diagonal. D-Cop Score = average of all 10 items; Positive D-Cop = average of 7 positive items; Negative D-Cop = average of 3 negative items.
Table 1-3. Rotated Factor Loadings for Daily Coparenting Items for Men and Women

<table>
<thead>
<tr>
<th>Items</th>
<th>Men Between</th>
<th>Men Within</th>
<th>Women Between</th>
<th>Women Within</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Factor 1</td>
<td>Factor 2</td>
<td>Factor 1</td>
<td>Factor 2</td>
</tr>
<tr>
<td>1</td>
<td>0.98</td>
<td>0.02</td>
<td>0.85</td>
<td>0.02</td>
</tr>
<tr>
<td>2</td>
<td>0.99</td>
<td>-0.01</td>
<td>0.92</td>
<td>0.01</td>
</tr>
<tr>
<td>3</td>
<td>0.90</td>
<td>0.17</td>
<td>0.59</td>
<td>0.03</td>
</tr>
<tr>
<td>4</td>
<td>0.90</td>
<td>0.17</td>
<td>0.59</td>
<td>0.03</td>
</tr>
<tr>
<td>5</td>
<td>-0.19</td>
<td>0.73</td>
<td>0.53</td>
<td>-0.06</td>
</tr>
<tr>
<td>6</td>
<td>0.00</td>
<td>0.99</td>
<td>0.70</td>
<td>0.04</td>
</tr>
<tr>
<td>7</td>
<td>0.86</td>
<td>-0.09</td>
<td>0.47</td>
<td>-0.09</td>
</tr>
<tr>
<td>8</td>
<td>0.90</td>
<td>0.09</td>
<td>0.60</td>
<td>-0.07</td>
</tr>
<tr>
<td>9</td>
<td>0.83</td>
<td>-0.18</td>
<td>0.60</td>
<td>-0.18</td>
</tr>
<tr>
<td>10</td>
<td>-0.26</td>
<td>0.72</td>
<td>0.64</td>
<td>-0.01</td>
</tr>
</tbody>
</table>

Note. Loadings were bolded for items that were later included on that factor subscale.
Table 1-4.
Bivariate correlations between average daily coparenting scores and related constructs

<table>
<thead>
<tr>
<th></th>
<th>Average Overall Coparenting</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mothers</td>
<td>Fathers</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Baseline Coparenting (CRS)</td>
<td>Baseline Coparenting (CRS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>D-Cop Score</td>
<td>D-Cop Score</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coparenting quality (CRS)</td>
<td>--</td>
<td>.71***</td>
<td>--</td>
<td>.64***</td>
</tr>
<tr>
<td>Couple relationship quality</td>
<td>.76***</td>
<td>.61***</td>
<td>.61***</td>
<td>.51***</td>
</tr>
<tr>
<td>Depressive symptoms</td>
<td>-.41***</td>
<td>-.36***</td>
<td>-.39***</td>
<td>-.35***</td>
</tr>
<tr>
<td>Child internalizing</td>
<td>-.21**</td>
<td>-.15*</td>
<td>-.33***</td>
<td>-.27***</td>
</tr>
<tr>
<td>Child externalizing</td>
<td>-.17*</td>
<td>-.09</td>
<td>-.35***</td>
<td>-.27***</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Average Positive Coparenting</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mothers</td>
<td>Fathers</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Baseline Positive Coparenting (CRS)</td>
<td>Baseline Positive Coparenting (CRS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Positive D-Cop Score</td>
<td>Positive D-Cop Score</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive Coparenting quality (CRS)</td>
<td>--</td>
<td>.68***</td>
<td>--</td>
<td>.60***</td>
</tr>
<tr>
<td>Couple relationship quality</td>
<td>.73***</td>
<td>.63***</td>
<td>.63***</td>
<td>.50***</td>
</tr>
<tr>
<td>Depressive symptoms</td>
<td>-.37***</td>
<td>-.34***</td>
<td>-.36***</td>
<td>-.29***</td>
</tr>
<tr>
<td>Child internalizing</td>
<td>-.15</td>
<td>-.06</td>
<td>-.27***</td>
<td>-.19*</td>
</tr>
<tr>
<td>Child externalizing</td>
<td>-.14</td>
<td>-.04</td>
<td>-.33***</td>
<td>-.24**</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Average Negative Coparenting</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mothers</td>
<td>Fathers</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Baseline Negative Coparenting (CRS)</td>
<td>Baseline Negative Coparenting (CRS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Negative D-Cop Score</td>
<td>Negative D-Cop Score</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative Coparenting quality (CRS)</td>
<td>--</td>
<td>.65***</td>
<td>--</td>
<td>.57***</td>
</tr>
<tr>
<td>Couple relationship quality</td>
<td>-.56***</td>
<td>-.38***</td>
<td>-.44***</td>
<td>-.35***</td>
</tr>
<tr>
<td>Depressive symptoms</td>
<td>.39***</td>
<td>.29***</td>
<td>.37***</td>
<td>.36***</td>
</tr>
<tr>
<td>Child internalizing</td>
<td>.31***</td>
<td>.33***</td>
<td>.39***</td>
<td>.36***</td>
</tr>
<tr>
<td>Child externalizing</td>
<td>.18*</td>
<td>.20*</td>
<td>.31***</td>
<td>.25**</td>
</tr>
</tbody>
</table>

Note: ***p < .001, **p < .01, *p < .05. Baseline coparenting quality (in italics) is measured via the CRS (Feinberg et al., 2012) and represents the established and already validated measure of coparenting. The average D-Cop, Positive D-Cop, and Negative D-Cop represent individuals' scores on the daily coparenting measure averaged across all of their days (within-person means) for all 10 items, the 7 positive items, and the 3 negative items.
Table 1-5. Dyadic multilevel model predicting daily coparenting scores (overall, positive, and negative) with baseline coparenting quality and within-person fluctuations in daily couple relationship feelings

<table>
<thead>
<tr>
<th>Fixed effects</th>
<th>Predicting D-Cop scores (10 items)</th>
<th>Predicting Positive D-Cop scores (7 items)</th>
<th>Predicting Negative D-Cop scores (3 items)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>Std. Error</td>
<td>Estimate</td>
</tr>
<tr>
<td>Fathers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept, $\gamma_{00}$</td>
<td>5.89***</td>
<td>(.05)</td>
<td>5.87***</td>
</tr>
<tr>
<td>Day, $\gamma_{10}$</td>
<td>0.004</td>
<td>(.003)</td>
<td>0.002</td>
</tr>
<tr>
<td>Baseline coparenting, $\gamma_{01}$</td>
<td>0.56***</td>
<td>(.05)</td>
<td>0.57***</td>
</tr>
<tr>
<td>Daily relationship quality, $\gamma_{20}$</td>
<td>0.44***</td>
<td>(.03)</td>
<td>0.46***</td>
</tr>
<tr>
<td>Mothers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept, $\gamma_{00}$</td>
<td>5.89***</td>
<td>(.04)</td>
<td>5.84***</td>
</tr>
<tr>
<td>Day, $\gamma_{10}$</td>
<td>0.004</td>
<td>(.004)</td>
<td>0.002</td>
</tr>
<tr>
<td>Baseline coparenting, $\gamma_{01}$</td>
<td>0.67***</td>
<td>(.05)</td>
<td>0.73***</td>
</tr>
<tr>
<td>Daily relationship quality, $\gamma_{20}$</td>
<td>0.50***</td>
<td>(.03)</td>
<td>0.50***</td>
</tr>
</tbody>
</table>

Note: ***p < .001. Daily relationship quality is the within-person portion of that predictor variable. Baseline coparenting quality was grand mean centered.
## Appendix A

### Daily Coparenting Scale (D-Cop)

Please select the response that best describes the way you feel about **how you and your partner worked together as parents TODAY**.

<table>
<thead>
<tr>
<th>Item</th>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I felt like part of a real parenting team.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>2. We cooperated in parenting.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>3. We supported one another in parenting.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>4. We divided parenting tasks fairly.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>5. We had different ideas about parenting. (R)</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>6. We were critical or hostile with each other around parenting (R)</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>7. We upheld each other's rules and limits to the child.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>8. We were able to ask each other for help with parenting.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>9. We trusted one another's parenting.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>10. We got upset with each other over a parenting issue. (R)</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

*Overall D-Cop Score (10 items) = Average of all items. Items 5, 6, and 10 are reverse coded.

*Positive D-Cop Score (7 items) = Average of items 1, 2, 3, 4, 7, 8, and 9.

*Negative D-Cop Score (3 items) = Average of items 5, 6, and 10.
Study II

Predicting Coparenting Quality in Daily Life in Mothers and Fathers

Introduction

The coparenting relationship refers to the way that partners work together—such as supporting or undermining one another—in rearing their children (Feinberg, 2003). The coparenting relationship is at the center of the family system and many family interactions (Feinberg, 2003) and has therefore been linked to important family and child outcomes. For example, more supportive and positive coparenting relationships tend to predict greater marital quality, fewer child behavior problems, and more secure child attachment (Brown et al., 2010; Belsky & Hsieh, 1998; McHale & Rasmussen, 1998; Schoppe et al., 2001; Schoppe-Sullivan et al., 2004; Teubert & Pinquart, 2010). Therefore, elucidating influences on the coparenting relationship can better assist researchers and those who work with families as they attempt to enhance family and child well-being. In the present study, we examine contextual (relationship quality, daily stressors), parent (negative affect), and child variables (child-induced parenting stress, child negative affect) as predictors of daily coparenting quality. Unlike earlier work, which has assessed coparenting using point-in-time measures (e.g., Bonds & Gondoli, 2007; Schoppe-Sullivan et al., 2004, 2008), we use an intensive longitudinal data (ILD) design (daily diaries) to examine coparenting on a daily basis. This type of a study is inherently designed to capture the small variations that may occur in perceptions of coparenting from day-to-day within individual parents. Such a study is necessary to better understand how coparenting reacts to daily perturbations and changes in the family system. Indeed, during some of the initial conceptualizations of coparenting in two-parent families, Gable, Belsky, and Crnic (1992) suggested that "it is the day-to-day functioning of the coparenting relationship that provides… one important mechanism by which poor marriages both directly and indirectly affect child development” (p. 284, emphasis added).
Although much of the research on coparenting has focused on the early parenting years, our knowledge continues to be limited with regard to variability in the coparenting relationship from day-to-day. Studies have found moderate rank-order stability in coparenting observations as well as parental reports of coparenting during infancy and toddlerhood (Davis et al., 2009; Favez et al., 2006; Fivaz-Depeursinge et al., 1996; Gable et al., 1995; McHale & Rotman, 2007; Van Egeren, 2003, 2004) and into the preschool years (Feinberg et al., 2012; McHale & Rasmussen, 1998; McHale & Rotman, 2007; Schoppe-Sullivan et al., 2004). From a family systems perspective, a family system often moves towards homeostasis, or equilibrium (Minuchin, 1985); therefore, moderate stability in the coparenting relationship over time would be expected. However, the spacing of assessments in extant studies of coparenting is often quite large, such as 6 months to 3 years, which does not allow for an examination of how the development of the coparenting relationship might change within and between families across shorter intervals.

It is likely that, although there may be moderate rank-order stability over long time frames, coparenting quality varies within families over shorter periods of time as the family system experiences perturbations (such as stressors, interparental conflict, and so forth) until equilibrium is again established via feedback loops or small adaptations take place. For example, research on other family relationships, such as the couple relationship, has demonstrated significant variability in relationship feelings within individuals over time (Totenhagen, Butler, Curran, & Serido, 2015), and recently researchers have shown that mothers' and fathers' perceptions of coparenting also fluctuate on a daily basis (McDaniel, Teti, & Feinberg, under review). Intensive data designs across days are needed to better assess coparenting within individuals and families and across time. Examining daily coparenting and its predictors will provide information about family or contextual characteristics that can be targeted to improve coparenting and ultimately parent and child outcomes. In general, frameworks for understanding influences on parenting and coparenting suggest that coparenting is multiply determined by contextual, parent, and child characteristics (Belsky, 1984; Feinberg, 2003).

**Contextual Influences on Coparenting**
Couple Relationship Quality. Important examples of contextual influences on coparenting quality include couple relationship quality, daily stressors, and the division of childcare tasks. Indeed, the functioning of the couple relationship is intimately connected to the functioning of the coparenting relationship, as both are subsystems within the family that directly involve the couple (Minuchin, 1985). In fact, couple relationship satisfaction is one of the most important predictors of coparenting quality. Pre-birth relationship satisfaction has been shown to set the tone for the coparenting relationship after birth (Le, McDaniel, Leavitt, & Feinberg, in press; McHale, Kazali, et al., 2004; Schoppe-Sullivan et al., 2007; Van Egeren, 2004), and after birth it has been shown to be consistently linked to the quality of the coparenting relationship (Le et al., in press; McHale, 1995, 1997; Schoppe-Sullivan et al., 2004) with those in more satisfied relationships also showing more supportive and less conflictual coparenting relationships.

For example, reported relationship anxiety such as worries about not being loved (Belsky, Crnic, & Gable, 1995), observed hostility between partners (Katz & Gottman, 1996; Margolin et al., 2001), worse observed marital problem solving (Margolin et al., 2001), and lower observed positive engagement (Schoppe-Sullivan et al., 2004) have been linked to less supportive coparenting. Observed marital distress has also been linked to more competitive and less harmonious coparenting, as well as greater imbalances of involvement and warmth in coparenting interactions (McHale, 1995). Undermining coparenting has been associated with many of the same marital functioning indicators as mentioned before, including but not limited to observed marital hostility (Katz & Gottman, 1996), reported problems with feeling close to others (Belsky et al., 1995), worse reported marital quality (Le et al., in press; McHale, 1997), low positive engagement (Schoppe-Sullivan et al., 2004), and defensiveness (Margolin et al., 2001). Research has also shown that couple relationship feelings (e.g., closeness, satisfaction, etc.) vary from day-to-day (Totenhagen et al., 2015), and researchers in one prior study have shown that mothers' and fathers' perceptions of coparenting co-vary with their daily feelings about their couple relationship (McDaniel et al., under review). Finally, due to parenthood often being a gendered experience with mothers and fathers experiencing diverging roles either from necessity, ideology, or choice (Cowan & Cowan, 1992), mothers may
purposely or inadvertently act as gatekeepers to their partner's involvement in childrearing (Schoppe-Sullivan, Altenburger, Lee, Bower, & Kamp Dush, 2015); this may lead fathers' perceptions of coparenting to be most strongly linked to the quality of their relationship with the mother.

**H1a.** In line with previous work, we hypothesize that fluctuations in parents' daily feelings about the couple relationship will be positively linked with fluctuations in parents' daily feelings about coparenting.

**H1b.** We also hypothesize that the link between daily relationship quality and coparenting quality will be stronger for fathers as compared with mothers.

**Daily Stressors.** The presence of daily stressors may temporarily alter the quality of coparenting, as stress can make parenting and being emotionally available for one's children and family more difficult. These impacts on coparenting and relationship quality can be explained in part from a Conservation of Resources perspective (CoR; Hobfoll, 1989), where individuals' wish to have and maintain resources (e.g., personal mental health, time, energy, etc.) and resources are depleted by the occurrence of daily stressors and hassles. For example, researchers have indicated that daily stressors and hassles (e.g., work stressors, arguments, etc.) are negatively associated with couple relationship quality (Harper et al., 2000; Lavee & Ben-Ari, 2007; Schulz et al., 2004; Story & Repetti, 2006; Totenhagen & Curran, 2011), and researchers have found that marital interactions are rated more positively on days when individuals work less, have more energy, and have more leisure time (Doumas, Margolin, & John, 2003). Similar to the research on couple and marital relationships, daily stressors likely deplete the resources available for parents to invest in high quality coparenting.

**H2.** We hypothesize that coparenting quality will suffer on days when parents experience more stressors.

**Burden in the Division of Childcare.** The division of household labor and childcare often becomes a source of conflict for parents as expectations surrounding the division are broken (e.g., Cowan & Cowan, 1992). Indeed, violated expectations have been linked with less positive coparenting (Khazan, McHale, & Decourcey, 2008; Van Egeren, 2004), and higher quality coparenting has been observed in families where fathers were highly involved (Schoppe-Sullivan et al., 2008). Although perceptions of
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**H3a.** We hypothesize that the greater burden a parent feels in regards to childcare will be linked with perceptions of a lower quality coparenting relationship.

**H3b.** As mothers are often the primary caregivers of their children, we also hypothesized that childcare burden would be linked more strongly with mothers' perceptions of coparenting quality as compared with fathers.

### Parental Influences on Coparenting

We hypothesize that fluctuations in parents' negative emotions will be associated with similar fluctuations in the quality of coparenting.

Parent Gender. At times, the gender of the parent is an important determinant of coparenting perceptions. For example, some have found that fathers report higher satisfaction with their coparenting relationship than mothers (Van Egeren, 2004). However, mother and father reports of coparenting are moderately to highly correlated during infancy (e.g., Feinberg et al., 2012; Schoppe-Sullivan et al., 2004; Van Egeren, 2004). As mentioned at times throughout the introduction, parenthood can be a gendered experience, as mothers and fathers often experience diverging roles either from necessity, ideology, or choice (Cowan & Cowan, 1992). These differing roles, experiences, and levels of involvement with their child may lead mothers' and fathers' perceptions of the coparenting relationship to develop differently as well as may moderate the potential influences on coparenting. We therefore test for differences by parent gender, and specific hypotheses concerning potential gender differences are outlined throughout the introduction when appropriate.

Child Influences on Coparenting

Child Negative Mood or Emotion. Children can sometimes be “a source of stress and strain in the marriage, a barrier to intimacy, and a cause of conflict” (Belsky, 1990, p. 172), especially when parents perceive their children as difficult. Although the relationship can sometimes be complex with the effects of the child's temperament depending on other stressors that are present in the family system (e.g., Schoppe-Sullivan et al., 2007), some researchers have found that poorer coparenting quality is linked directly with more reactive and negatively emotional children (Davis et al., 2009). More negative infant temperament may also alter the stability of the coparenting relationship over time (Laxman, Jessee, Mangelsdorf, Rossmiller-Giesing, Brown, & Schoppe-Sullivan, 2013) or the quality of the marital relationship over time (e.g., Belsky & Rovine, 1990). Therefore, high quality parenting of children who express more negative emotions may be more difficult to maintain, as a bidirectional process occurs across time between parents and children—with child negative emotion predicting poorer quality parenting, and poorer quality parenting predicting more child behavior problems (e.g., Morris, Silk,
Furthermore, differences in opinion between mothers and fathers on how to handle infant or child behavior can lead to conflict between parents (Krishnakumar & Buehler, 2000).

**H5.** *We hypothesize that fluctuations in children's daily negative emotions will be associated negatively with fluctuations in daily coparenting quality.*

**Child-related parenting stress.** In parents with young children, for example, stressors in regards to parenting are common (Crnic & Low, 2002). Parenting stress can lead to feelings of depression and daily negative mood (Bolger et al., 1989; Leigh & Milgrom, 2008), a breakdown in family functioning (Cummings & Davies, 1994; Gelfand, Teti, & Radin Fox, 1992), reduced sensitivity and warmth (Crnic & Low, 2002), and less positive affect (Belsky, Woodworth, & Crnic 1996; Crnic, Gaze, & Hoffman, 2005). Additionally, parenting stress can be distinct from stress in other domains of life, such as the marital relationship (Belsky, 1984), and parenting stress may be more strongly tied to parenting behaviors than stress in other domains (Deater-Deckard, 1998). Finally, some research suggests that the associations between parenting stress and coparenting quality are similar for mothers and fathers (Solmeyer & Feinberg, 2011).

**H6.** *We hypothesize that parents experiencing more parenting-related stress will show poorer coparenting quality.*

**The Accumulation of Risk Factors**

Many of these contextual, parent, and child factors are often interrelated. For example and as mentioned earlier in the introduction, parenting stress and deteriorations in family functioning, parent emotion and depression, and parenting quality often co-occur (e.g., Bolger et al., 1989; Crnic & Low, 2002; Cummings & Davies, 1994). As another example, parental depression affects individuals' cognitive resources and interpretation of social cues which can also lead to greater risk for child dysregulation, poor parenting quality, and worse marital functioning (e.g., Elgar et al., 2007; Paulson et al., 2006; Whisman, Davila, & Goodman, 2011). Additionally, external stressors and daily hassles may lead parents to be more irritable and critical which can begin a circular cycle of negative parenting and child negative emotion
(e.g., Webster-Stratton, 1990). As stressors and risk factors accumulate within individuals and families, the coordination between partners in parenting their child may suffer to a greater extent. Again, these impacts on coparenting quality can be explained in part by a depletion in the resources available to maintain a high quality coparenting relationship (CoR; Hobfoll, 1989; e.g., personal mental health, time, energy, etc.).

**H7.** *We hypothesize that these daily predictors will each account for additional variance in the experience of daily coparenting, such that those individuals experiencing a greater accumulation of these risk factors (contextual, parent, and child) will experience worse coparenting quality on those days.*

**The Current Study**

Although there is some initial evidence that coparenting quality fluctuates from day-to-day (McDaniel et al., under review), we do not currently understand which factors most influence fluctuations in daily coparenting. The current study expands on the prior work of McDaniel et al. (under review) in which they developed and provided some initial validity for a measure of daily coparenting quality, the *Daily Coparenting Scale* (D-Cop). We utilize the D-Cop in a 14-day diary study of 174 heterosexual families (both mother and father reports) to examine coparenting quality on a daily basis. The purpose of the current study was to examine contextual (daily relationship quality, daily stressors, daily childcare burden), parent (daily negative emotions, gender), and child factors (daily child negative emotion, daily child-induced parenting stress) as predictors of mothers' and fathers' perceptions of daily coparenting quality. As called for by McDaniel and his colleagues (under review), we hope to better illuminate the factors that most influence the quality of daily coparenting; this work could then be used to inform prevention and intervention efforts and further strengthen family relationships by stabilizing the quality of coparenting.

**Method**

**Procedure and Participants**

Participants included both mothers and fathers from 174 heterosexual couples with a young child who were a part of the *Daily Family Life Project* (DFLP). Participants were currently living together in the United States and had a child age 5 or younger (*M* = 2.88 years, *SD* = 1.33; 55% female). We
recruited families through three primary sources: (1) a database of families across the state of Pennsylvania who had expressed that they were willing to be contacted by researchers, (2) announcements on parenting websites and listserves, and (3) flyers in community buildings such as family doctor offices. As the study was conducted entirely online, families were not required to live in the city or state in which the study took place. Families resided in the following U.S. regions: 52% Northeast, 17% West, 16% South, and 15% Midwest.

In terms of relationship length, participants ranged from 2 to 23 years, with 92% in a relationship of 5 years or longer ($M = 9.99$ years, $SD = 4.07$). Most were Caucasian (93% for mothers, 89% for fathers), married (95%), had a Bachelor's degree or higher (76% of mothers, 68% of fathers), and were not currently attending school (80%); 57% had more than one child. On average, mothers were 31.52 years old ($SD = 4.41$; range 20 to 42), husbands were 33.31 ($SD = 5.04$; range 22 to 52), and yearly household income was approximately $74,000 ($SD = $39,000; Median = $69,000), but ranged extensively from no income to $250,000 with 21% of families reporting they were on some form of federal aid (e.g., medical assistance, food stamps, etc.). Also, 68% of mothers and 91% of fathers currently worked for pay (weekly work hours for mothers, $M = 31.46$, $SD = 14.09$; for fathers, $M = 41.69$, $SD = 11.56$).

Participants were assigned a unique ID number which they used each day they entered responses into our online survey. This ID number was able to link partners within families and participants across days. After study enrollment and informed consent, participants first completed a baseline online survey via a secure server. This survey measured demographic characteristics and included the baseline measure of coparenting (CRS). Then, approximately two weeks after finishing their baseline survey ($M = 17.87$ days, $SD = 9.38$) participants completed 14 consecutive days of the Daily Coparenting Scale (D-Cop) and other daily measures before bed. There were 21 participants who dropped out or who did not complete any daily surveys, leaving us with a sample of 345 parents (174 women and 171 men from 174 families). Of those who completed at least one day of the daily surveys (94% of full sample), participants completed an average of 11.76 days ($SD = 2.94$ days), with 87% completing 10 or more days, for a total of 4058 person-days of data.
Daily Coparenting Measure

Daily Coparenting Scale. The quality of daily coparenting was measured by mother and father reports across 14 days using the Daily Coparenting Scale (D-Cop; McDaniel et al., under review). This scale includes 10 items that were created based on a careful review of the coparenting literature and that obtain a sampling of the range of possible coparenting-related feelings and behaviors that parents may encounter on a daily basis. Across the items, parents report on their daily experience of the solidarity of the parenting team, cooperation, support, endorsement, disagreement, undermining, and fairness in the division of childcare tasks. Parents selected the response to each item that best describes how they worked together as parents today on a 7-point Likert-type scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree). Example items include "We cooperated in parenting" and "We upheld each other's rules and limits to the child." Negatively worded items were reverse coded, and then all item responses were averaged for each day to produce an overall coparenting score for each day. A higher score indicates perceptions of higher quality coparenting on that day. In prior work, we have shown the scale to have good internal consistency and reliability to assess within-person changes in coparenting across days (McDaniel et al., under review). In the current study, the scale also showed good internal consistency (average Cronbach's alpha across days = .89 for mothers and .89 for fathers).

Contextual-Level Predictor Measures

Baseline Coparenting Quality. On the baseline survey about 2 weeks before the daily surveys began, participants completed the Coparenting Relationship Scale (CRS, Feinberg et al., 2012) in order to measure their general level of coparenting quality. This measure includes 35 items that assess a variety of subdomains within coparenting, including support, undermining, agreement, endorsement of partner's parenting, closeness, division of labor, and child exposure to conflict. Example items include "My partner and I have different ideas about how to raise our child" and "When I’m at my wits end as a parent, partner gives me extra support I need." Participants respond to all items on a 7-point scale ranging from 0 (Not true of us) to 7 (Very true of us), except for the child exposure to conflict items which are measured on a 7-point scale that ranges from 0 (Never) to 7 (Very often, several times a day). Negatively worded items
were reverse scored and then items were averaged, with higher scores indicating higher quality coparenting. Feinberg and his colleagues (2012) have demonstrated the CRS to be a reliable and valid measure of coparenting. The CRS also showed good internal consistency in the current study (Cronbach's alpha = .94 for both mothers and fathers).

**Daily Relationship Quality.** On a daily basis, participants also rated how they felt that day about their relationship with their partner in terms of love, closeness, satisfaction, commitment, conflict, and ambivalence (Curran, McDaniel, Pollitt, & Totenhagen, 2015; Totenhagen, Serido, Curran, & Butler, 2012). Participants responded on a 7-point scale ranging from 1 (*not very much or just a little*) to 7 (*very much or a lot*). Example items include "Today, how satisfied were you with your relationship with your partner?" and "Today, how much conflict did you have with your partner?" Negative items were reversed scored and then all items were averaged, with higher scores indicating feeling more positive about the couple relationship that day (average Cronbach's alpha across days = .87 for fathers, .86 for mothers).

**Daily Stressors.** Parents responded on a daily basis to seven items frequently used in the daily stressor literature asking whether they had experienced specific stressors or anything that most people would consider stressful in the last 24 hours in various contexts; these items included (1) argument or disagreement with anyone, (2) anything that could have argued or disagreed about, but decided to let it pass, (3) stressor at work, school, or volunteer setting, (4) stressor at home, (5) a happening to a close friend or relative that turned out to be stressful for you, (6) personal health, and (7) anything else that was stressful that was not previously mentioned (Almeida, Wethington, & Kessler, 2002). These items were summed on each day to produce an overall number of stressors experienced each day for each participant.

**Daily Burden in Childcare.** Parents were asked, "Did you feel burdened by doing more than your fair share of each of following parenting domains?" They then rated five domains concerning today—including (1) playtime, (2) mealtime, (3) bathtime, (4) bedtime, and (5) limit setting / discipline—and one domain concerning last night—(6) nighttime. Parents responded on a 7-point scale ranging from 1 (*not very much or not at all*) to 7 (*very much or a lot*). This measure was created specifically for this study and the internal consistency of the items across days was high (average Cronbach's alpha across
days = .87 for fathers and .79 for mothers). We averaged these items together each day with higher scores representing feeling greater burden in childcare.

**Parent-Level Predictor Measure**

**Daily Parent Negative Mood.** In order to broadly capture parents' experiences of negative daily mood, parents responded to three items regarding how much time they had felt certain emotions today on a 5-point scale ranging from 0 (*none of the time*) to 4 (*all of the time*). The items were anxious, angry or annoyed, and discouraged or sad, and items were selected and combined from the POMS-15 version of the Profile of Mood States (Cranford, Shrout, Iida, Rafaeli, Yip, & Bolger, 2006; McNair, Lorr, & Droppleman, 1992). We averaged the items to produce an broad negative mood score with higher scores indicating greater negative mood (average Cronbach's alpha across days = .69 for fathers and .70 for mothers).

**Child-Level Predictor Measures**

**Daily Child Negative Mood.** To broadly capture child negative mood, we utilized three items including fussy or crying, angry or annoyed, and sad or discouraged. Parents rated these items on how much of the time their child behaved in that way while they were with the child today on a 5-point scale ranging from 0 (*none of the time*) to 4 (*all of the time*). Items were adapted from the POMS-15 (Cranford et al., 2006; McNair et al., 1992). We averaged the items to produce an overall child negative mood score on each day (average Cronbach's alpha across days = .72 for fathers, .71 for mothers).

**Daily Child-Induced Parenting Stress.** Parents responded to three items dealing with child difficulty from the Parenting Stress Index (PSI; Abidin, 1990). We adapted the items such that parents were responding about their experiences with their child today. The items included (1) "Today, I felt that my child was very moody and easily upset;" (2) "Today, my child did a few things which bothered me a great deal;" and (3) "Today, my child was very demanding." Parents responded on a 5-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). We averaged the items on each day with higher scores indicating greater child-induced parenting stress on that day (average Cronbach's alpha across days = .88 for fathers, .87 for mothers).
Results

Descriptives and Correlations

On average across the 14 days, mothers and fathers reported feeling satisfied with coparenting and their couple relationship, and reported a low amount of stress, childcare burden, negative emotion, and parenting stress (see Table 2-1). However, these between-person averages mask the amount of variability from day-to-day within individuals. We examined the intraclass correlation (ICC) for each daily variable (i.e., proportion of total daily variance due to between-person differences) and the between- and within-person correlations for all daily variables utilizing a multilevel structural equation model (MSEM) in MPlus (see McDaniel et al., under review; Muthen, 1994; Wright et al., 2015). Mplus latently split the total variance in the daily variables into their between-person (e.g., individuals differ from one another in average levels) and within-person portions (e.g., individuals’ scores differ day-to-day from their own average level), and all daily variables were allowed to covary freely at the between-person and within-person levels. We then examined the standardized model results at each level. This model adjusts significance levels to account for the nested nature of our daily data.

The ICCs ranged from .31 to .62 (see Table 2-2), and indicating that 38% to 69% (e.g., 1 -.31 = .69) of the variance in our daily variables was tied to within-person differences. These ICC values show that there is variability at both the between-person and within-person levels in our daily variables and suggest that examining our variables and potential effects at both levels is important. In terms of correlations, at both the between-person level (see Table 2-1) and within-person level (see Table 2-2), our variables were often related in the ways we would expect. Individuals with greater relationship quality and lower stress, burden in childcare, child-induced parenting stress, and negative mood and child mood rating higher daily coparenting quality on average (between-person). We also found similar correlations at the within-person level, suggesting that on days when individuals fluctuate from their own average on a predictor (e.g., parenting stress) they experience similar fluctuations in their perceptions of coparenting quality (within-person).

Predicting Daily Coparenting Quality
To examine our hypotheses, we entered contextual, parent, and child characteristics as predictors of within- and between-person daily coparenting in a single intercept multilevel model (MLM) while entering an indicator for gender (1 = male, 0 = female; similar to Campbell, Simpson, Boldry, & Kashy, 2005). This method allows us to test gender differences in the fixed effects directly in the model by creating interactions between the predictors and gender. However, due to the dyadic and intensive nature of our data we created dummy codes for mothers and fathers (as recommended by Bolger & Laurenceau, 2013) and entered these on the random line of the model. Thus, in this model we are both able to test for gender differences while appropriately accounting for our dyadic, nested data and error structure (see Curran, McDaniel, Pollitt, & Totenhagen, 2015). We also allowed for an autoregressive correlation in the residuals across days, as prior work has shown that not accounting for this can bias standard errors and significance tests (Bolger & Laurenceau, 2013).

Predictor variables that vary across days (i.e., relationship feelings, stressors, childcare burden, parent negative emotion, child negative emotion, and child-induced parenting stress) were decomposed into individuals’ average level of that variable across time (e.g., trait level relationship satisfaction; between-person effect) and individuals’ daily deviations from their average (e.g., state level relationship satisfaction; within-person effect). This was done by (1) grand mean centering the daily variable, (2) calculating the mean level in that variable across days within individuals (trait), and (3) subtracting the created trait variable from each individual’s daily scores on that variable (state). Thus, the trait portion measures between-person differences in that predictor; the state portion measures within-person fluctuations around their own average trait level in that variable; and the trait and state variable are uncorrelated. Of particular interest to us and our hypotheses are the state level associations which if significant indicate, for example, that on days when one is less satisfied with the couple relationship the coparenting relationship suffers.

The MLM equations for predicting daily coparenting quality with daily time-varying contextual, parent, and child characteristics are presented here:
Level 1: \[ \text{Coparenting}_{ti} = \beta_0 + \beta_1 \text{Day}_{ti} + \beta_2 \text{State Relationship Feelings}_{ti} + \beta_3 \text{State Stressors}_{ti} + \beta_4 \text{State Childcare Burden}_{ti} + \beta_5 \text{State Parent Neg. Mood}_{ti} + \beta_6 \text{State Parenting Stress}_{ti} + \beta_7 \text{State Child Neg. Mood}_{ti} + \epsilon_{ti} \]

Level 2: \[ \beta_{0i} = \gamma_{00} + \gamma_{01} \text{Baseline Coparenting}_i + \gamma_{02} \text{Trait Relationship Feelings}_i + \gamma_{03} \text{Trait Stressors}_i + \gamma_{04} \text{Trait Childcare Burden}_i + \gamma_{05} \text{Trait Parent Neg. Mood}_i + \gamma_{06} \text{Trait Parenting Stress}_i + \gamma_{07} \text{Trait Child Neg. Mood}_i + \gamma_{08} \text{Demographic Controls}_i + \text{male} \times \mu_{0i} + \text{female} \times \mu_{0i} \]

\[ \begin{align*}
\beta_{1i} &= \gamma_{10} + \mu_{1i} \\
\beta_{2i} &= \gamma_{20} + \mu_{2i} \\
\beta_{3i} &= \gamma_{30} + \mu_{3i} \\
\beta_{4i} &= \gamma_{40} + \mu_{4i} \\
\beta_{5i} &= \gamma_{50} + \mu_{5i} \\
\beta_{6i} &= \gamma_{60} + \mu_{6i} \\
\beta_{7i} &= \gamma_{70} + \mu_{7i} 
\end{align*} \]

At Level 1, we have the equation describing the within-person relationship of daily coparenting quality (\(\text{Coparenting}_{ti}\)) to the daily within-person predictor variables (e.g., state relationship feelings, state stressors, etc.). At level 2, we entered between-person predictors and controls—such as baseline coparenting quality, the trait portions (i.e., average levels) of the daily predictors, and demographic controls—and between-person random effects. In our final model, we included between-person random effects for mothers’ and fathers’ intercepts (\(\mu_{0i}\)), daily relationship feelings (\(\mu_{2i}\), and daily stressors (\(\mu_{3i}\)). The model could not converge if we estimated random effects for all daily variables, and we therefore removed those other random effects (i.e., \(\mu_{1i}, \mu_{4i}, \mu_{5i}, \mu_{6i}, \mu_{7i}\)). Of primary interest to our hypotheses are the estimates for the state-level variables, which if significant represent that daily fluctuations in these predictors within individuals are associated with daily fluctuations in coparenting.

We report the unstandardized model estimates for our fixed effects in Table 2-3. No significant interactions with gender were found, and therefore results represent effects for parents in general.

Examining the fixed effects for the “state” daily predictors (within-person effects), we found significant effects for daily relationship feelings, stressors, burden in childcare, parent negative mood, and parenting stress, although not child negative mood. These results indicate that on days when parents experience
worse relationship satisfaction, more stressors, greater childcare burden, more negative emotions, and
greater parenting stress—as compared with their usual level—they feel that coparenting went more poorly
than normal. For the most part, our results support our hypotheses (H1a, H2, H3a, H4, H6, although not
H5 which dealt with child negative mood). Contrary to our gender differences hypotheses (H1b and H3b),
we did not find that the effects of daily relationship feelings and daily feelings of childcare burden were
stronger for mothers or fathers. Finally, our results supported our hypothesis (H7) that an accumulation of
risk factors would bode poorly for daily coparenting quality. In other words, all of the daily variables,
except for child negative mood, showed unique and additive effects on fluctuations in daily coparenting.
Therefore, if parents experienced negative changes in multiple factors their coparenting would change
more dramatically than if they experienced negative changes in only one factor.

Discussion

We examined contextual (relationship quality, daily stressors), parent (negative affect), and child
variables (child-induced parenting stress, child negative affect) as predictors of daily coparenting quality.
Extending earlier cross-sectional and macro-longitudinal work on coparenting, we used a daily diary design to
examine coparenting on a daily basis. We chose to focus our work at the daily level in order to capture the
small variations that occur in perceptions of coparenting on a day-to-day basis within individual parents and to
better understand how coparenting reacts to daily perturbations and changes in the family system—all with the
hope of identifying factors that can be targeted by interventions to improve coparenting and family outcomes.
To our knowledge, the current study is the first to examine predictors of coparenting at the daily level.

Our results confirm frameworks for understanding parenting and coparenting (Belsky, 1984;
Feinberg, 2003)—i.e., coparenting is multiply determined by contextual, parent, and child characteristics.
Indeed, we found that fluctuations in daily coparenting were predicted by similar fluctuations in daily couple
relationship feelings, stressors, feelings of childcare burden, parent negative mood, and parenting stress. These
results speak to the complexity of family systems. In line with prior macro-longitudinal work and theory (e.g.,
Belsky, 1984; Le et al., in press; Schoppe-Sullivan et al., 2004), we confirmed that when the couple
relationship no longer acts as a support to the coparenting relationship on a particular day, coparenting quality
diminishes. Changes in parents’ psychological states impacted changes in the quality of coparenting, as parents experiencing more depressed or negative mood likely feel drained, are less able to tolerate frustration, and are more likely to misinterpret relationship cues (e.g., Atkinson et al., 2000). Indeed, prior work has shown some linkages between coparenting quality and depressive symptoms (e.g., McDaniel & Teti, 2012; Tissot et al., 2016). Likewise, parents who feel burdened and stressed by parenting their child are less able to invest fully in high quality coparenting and coordination with their partner. This could be due to a depletion of resources such as time and energy (CoR; Hobfoll, 1989) as well as conflicts and disagreements that might arise within couples over the division of labor and violated expectations (Cowan & Cowan, 1992; Khazan et al., 2008; Van Egeren, 2004).

Moreover, we found that daily risk factors predicted daily coparenting in an additive manner. This supports our hypothesis that an accumulation of risk factors would be particularly detrimental to daily coparenting quality. These results confirm a Conservation of Resources (CoR; Hobfoll, 1989) perspective and suggest that as resources (e.g., personal mental health, time, energy, etc.) are depleted by the occurrence of each additional risk factor (e.g., daily stressors, relationship problems, etc.) high-quality coparenting is increasingly difficult to maintain on that day.

No gender differences were found in the strength of the associations between our predictors and daily coparenting. This suggests that although mothers often are the primary caregivers and gatekeepers (e.g., Schoppe-Sullivan et al., 2015), fluctuations in parents’ individual or couple well-being on a daily basis appear to influence mothers’ and fathers’ perceptions of their relationship together as coparents in similar ways. Such similarities across gender in parental experiences could perhaps be used as a starting point from which to build common ground between stressed or struggling coparents. In a sense, although they may divide employment, housework, and child caregiving responsibilities in different ways parents may gain shared meaning and mutual understanding if they can validate one another’s experiences of how contextual, parent, and child stress influence them on a daily basis.

Although daily child negative mood was significantly correlated with daily coparenting quality at the between-person and within-person levels, once entered into our final model with all other daily predictors
(such as daily parent negative mood and feelings of parenting stress) it was no longer significant. This supports the idea that the effects of stressors and other risk factors on parenting quality are often filtered through the psychological well-being of the parent or parents and that “risk characteristics in the child are relatively easy to overcome” when parents’ psychological resources are intact (Belsky, 1984, p. 91). However, our results should not be used as an indication that child characteristics are completely unimportant. For example, daily parenting stress and child negative mood were highly correlated at the within-person level, suggesting that parents felt more stressed on days when their child showed more negative emotion than usual. In other words, our results imply that parent characteristics and feelings are the primary predictors of daily coparenting quality; however, the correlations in our study suggest that a decrease in child negative mood would likely lead to decreases in parents’ feelings of stress which would reverberate into other aspects of family well-being. Future work could test this hypothesis at the daily level with meditational analyses.

Our results suggest that there are many avenues through which we can intervene in the family system to improve the quality of daily coparenting. Indeed, implementing programs at work to stop the spillover of work stress into the family domain as well as teaching parents skills to reduce the salience or spillover of negative emotions into parenting could improve the quality of coparenting. However, the strongest predictors of daily coparenting were changes in feelings about the couple relationship and feelings of burden in the division of childcare. For example, our model results estimate that we would have to reduce the number of stressors an individual experiences in a given day by 10 (which is more stressor items than participants could even rate in the current study) to get the same effect of improving feelings about the couple relationship by 1 point on a 7-point scale. It is unknown how difficult it would be to improve an individual’s feelings about the couple relationship by an entire point, yet focusing on the quality of the couple relationship seems like a promising avenue for future interventions and research to improve coparenting relationships. Indeed, family systems theory and prior cross-section and macro-longitudinal research all support our claim that the quality of the coparenting relationship is intricately and proximally connected to the functioning of the couple relationship (e.g., Le et al., in press; McHale, 1995, 1997; Minuchin, 1985).
The division of housework and childcare has often been found to be a heated and conflictual topic for parents (Cowan & Cowan, 1992), with perceptions of fairness linked with greater couple relationship satisfaction (Dew & Wilcox, 2011). Our results support this prior work and extend these linkages to daily perceptions of coparenting quality. On days when parents feel more burdened in the division of childcare their perceptions of the coparenting relationship are also colored negatively on that day. This seems to suggest, much like prior work (e.g., Galovan et al., 2014), that working together—when possible—on household tasks would lead to improved perceptions of the relationship between parents. This is likely due to reduced feelings of burden and unfairness in the division. Furthermore, interventions designed at helping parents discuss and improve the division of childcare would likely lead to increased functioning in the coparenting relationship in general.

Although the daily diary design of the current study allowed us to more fully examine coparenting relationships at the more process level, we note several limitations. The majority of the sample was White and fairly educated, although we had great diversity in income and geographical location in the U.S. Our within-person design allowed us to examine how coparenting fluctuated on a daily basis in connection with within-person changes in other daily variables, regardless of individual differences between participants. However, it is possible that the strength of the within-person associations between our daily variables could vary by ethnicity and socioeconomic status. Future work should expand on our initial examination of daily coparenting quality into more diverse contexts. Like with all survey research, it is unclear how strongly parents’ daily self-reports relate to their actual coparenting behaviors across days. Daily diary designs reduce participant bias and retrospection as compared with measures that ask participants to recall occurrences across weeks or months (e.g., Bolger, Davis, & Rafaeli, 2003), which may help our results to be more accurate or at least lend another type of useful data in comparison with more macro-longitudinal or general survey designs.

In the current study, we examined coparenting quality on a daily basis and found that it is relatively reactive to parents’ everyday experiences. We confirmed that coparenting is multiply determined by a range of contextual, parent, and child characteristics. Indeed, we found that fluctuations in
daily coparenting were predicted by similar fluctuations in daily couple relationship feelings, stressors, feelings of burden in the division of childcare, parent negative mood, and parenting stress. Moreover, as daily risk factors accumulated the quality of daily coparenting deteriorated further, suggesting that a buildup of stressors and daily difficulties may be particularly detrimental to parents’ abilities to cooperate with one another and coordinate their parenting together on a daily basis. Overall, our results suggest that there are many avenues through which we can intervene in the family system to improve the quality of daily coparenting—although coparenting may benefit most from interventions targeting the quality of the couple relationship and the division of household labor. Parents who find ways to support one another as a couple (outside of parenting together) as well as to divide parenting tasks in ways that do not lay excess burden on any one parent are the most likely to have high functioning coparenting relationships on a daily basis.
References


Table 2-1.
Between-person correlations and descriptive statistics for baseline coparenting, average daily coparenting, and other average daily variables for mothers and fathers

<table>
<thead>
<tr>
<th></th>
<th>Coparenting (CRS)</th>
<th>Coparenting (D-Cop)</th>
<th>Rel. quality</th>
<th>Stressors</th>
<th>Burden in childcare</th>
<th>Parent neg. mood</th>
<th>Child neg. mood</th>
<th>Parenting stress</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Baseline</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coparenting (CRS)</td>
<td>.43***</td>
<td>.71***</td>
<td>.71***</td>
<td>-.08</td>
<td>-.50***</td>
<td>-.36***</td>
<td>-.21*</td>
<td>-.19*</td>
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<td>Daily Variables</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coparenting (D-Cop)</td>
<td>.64***</td>
<td>.58***</td>
<td>.77***</td>
<td>-.15</td>
<td>-.45***</td>
<td>-.34***</td>
<td>-.22*</td>
<td>-.21*</td>
</tr>
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<td>.79***</td>
<td>.56***</td>
<td>-.10</td>
<td>-.37***</td>
<td>-.42***</td>
<td>-.13</td>
<td>-.10</td>
</tr>
<tr>
<td>Stressors</td>
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<td>-.09</td>
<td>.33***</td>
<td>.29†</td>
<td>.38***</td>
<td>.37**</td>
<td>.35**</td>
</tr>
<tr>
<td>Burden in childcare</td>
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<td>-.37***</td>
<td>-.39***</td>
<td>.27†</td>
<td>.37***</td>
<td>.62***</td>
<td>.61***</td>
<td>.52***</td>
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<tr>
<td>Parent negative mood</td>
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<td>-.41***</td>
<td>-.34***</td>
<td>.36***</td>
<td>.48***</td>
<td>.31**</td>
<td>.58***</td>
<td>.39***</td>
</tr>
<tr>
<td>Child negative mood</td>
<td>-.33***</td>
<td>-.32***</td>
<td>-.26**</td>
<td>.32**</td>
<td>.64***</td>
<td>.58***</td>
<td>.52***</td>
<td>.77***</td>
</tr>
<tr>
<td>Child-induced parenting stress</td>
<td>-.25***</td>
<td>-.38***</td>
<td>-.20*</td>
<td>.36***</td>
<td>.55***</td>
<td>.38***</td>
<td>.75***</td>
<td>.60***</td>
</tr>
</tbody>
</table>

Mothers
Mean
4.99  5.97  6.24  0.95  1.41  0.76  0.66  2.01
Std. Dev.
0.77  0.69  0.69  0.74  0.50  0.48  0.39  0.71

Fathers
Mean
4.97  5.96  6.18  0.73  1.19  0.62  0.58  1.83
Std. Dev.
0.75  0.69  0.74  0.61  0.35  0.46  0.37  0.64

Note: ***p < .001, **p < .01, *p < .05, †p < .10 Mothers’ between-person correlations are displayed above the diagonal, while fathers are below the diagonal. Between-person correlations between mothers and fathers are bolded, italicized, and displayed on the diagonal.
Table 2-2.
Within-person correlations between daily coparenting and other daily variables in mothers and fathers

<table>
<thead>
<tr>
<th>Daily Variables</th>
<th>Coparenting (D-Cop)</th>
<th>Rel. quality</th>
<th>Stressors</th>
<th>Burden in childcare</th>
<th>Parent neg. mood</th>
<th>Child neg. mood</th>
<th>Parenting stress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coparenting (D-Cop)</td>
<td>.36***</td>
<td>.46***</td>
<td>-.19***</td>
<td>-.28***</td>
<td>-.22***</td>
<td>-.08**</td>
<td>-.14***</td>
</tr>
<tr>
<td>Relationship quality</td>
<td>.49***</td>
<td>.38***</td>
<td>-.29***</td>
<td>-.22***</td>
<td>-.37***</td>
<td>-.07**</td>
<td>-.08***</td>
</tr>
<tr>
<td>Stressors</td>
<td>-.19***</td>
<td>-.26***</td>
<td>.25***</td>
<td>.14***</td>
<td>.36***</td>
<td>.10***</td>
<td>.12***</td>
</tr>
<tr>
<td>Burden in childcare</td>
<td>-.18***</td>
<td>-.14***</td>
<td>.11**</td>
<td>.01</td>
<td>.20***</td>
<td>.22***</td>
<td>.26***</td>
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<td>-.25***</td>
<td>.38***</td>
<td>.17***</td>
<td>.20***</td>
<td>.19***</td>
<td>.19***</td>
</tr>
<tr>
<td>Child negative mood</td>
<td>-.10**</td>
<td>-.06*</td>
<td>.10***</td>
<td>.24***</td>
<td>.14***</td>
<td>.25***</td>
<td>.59***</td>
</tr>
<tr>
<td>Child-induced parenting stress</td>
<td>-.17***</td>
<td>-.14***</td>
<td>.14***</td>
<td>.17***</td>
<td>.12***</td>
<td>.54***</td>
<td>.36***</td>
</tr>
</tbody>
</table>

Mothers' ICC
- .54
- .59
- .34
- .51
- .50
- .49
- .49
- .53
- .46
- .42

Fathers' ICC
- .58
- .62
- .31
- .49
- .53
- .46
- .42

Note: ***p < .001, **p < .01, *p < .05. Significance levels were calculated in Mplus and accounted for the nested nature of the data. Mothers’ within-person correlations are displayed above the diagonal, while fathers are below the diagonal. Within-person correlations between mothers and fathers are bolded, italicized, and displayed on the diagonal. ICC = Intraclass correlation, or proportion of total variance in daily variable due to between-person variation.
Table 2-3. Multilevel model predicting parents' daily feelings about coparenting

<table>
<thead>
<tr>
<th>Fixed effects</th>
<th>Estimate</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
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<td>(0.05)</td>
</tr>
<tr>
<td>Day</td>
<td>-0.0006</td>
<td>(0.00)</td>
</tr>
<tr>
<td>Gender</td>
<td>-0.05</td>
<td>(0.04)</td>
</tr>
<tr>
<td><strong>Baseline Control Variables</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family income</td>
<td>0.0007</td>
<td>(0.0008)</td>
</tr>
<tr>
<td>Not Caucasian</td>
<td>-0.17*</td>
<td>(0.09)</td>
</tr>
<tr>
<td>Not college graduate</td>
<td>0.001</td>
<td>(0.06)</td>
</tr>
<tr>
<td>Multiple children</td>
<td>0.06</td>
<td>(0.06)</td>
</tr>
<tr>
<td>Relationship length</td>
<td>-0.02*</td>
<td>(0.008)</td>
</tr>
<tr>
<td>Marital Status</td>
<td>-0.03</td>
<td>(0.14)</td>
</tr>
<tr>
<td>Parent age</td>
<td>0.009</td>
<td>(0.02)</td>
</tr>
<tr>
<td>Child age</td>
<td>-0.009</td>
<td>(0.02)</td>
</tr>
<tr>
<td>Coparenting quality</td>
<td>0.25***</td>
<td>(0.04)</td>
</tr>
<tr>
<td><strong>Trait (between-person) daily variables predicting average daily coparenting</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relationship feelings</td>
<td>0.47***</td>
<td>(0.04)</td>
</tr>
<tr>
<td>Stressors</td>
<td>-0.04</td>
<td>(0.04)</td>
</tr>
<tr>
<td>Feelings of burden/unfairness</td>
<td>-0.05</td>
<td>(0.06)</td>
</tr>
<tr>
<td>Parent negative affect</td>
<td>-0.009</td>
<td>(0.06)</td>
</tr>
<tr>
<td>Parenting stress</td>
<td>-0.17**</td>
<td>(0.05)</td>
</tr>
<tr>
<td>Child negative affect</td>
<td>0.08</td>
<td>(0.09)</td>
</tr>
<tr>
<td><strong>State (within-person) daily variables predicting daily fluctuations in coparenting</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relationship feelings</td>
<td>0.41***</td>
<td>(0.02)</td>
</tr>
<tr>
<td>Stressors</td>
<td>-0.04**</td>
<td>(0.01)</td>
</tr>
<tr>
<td>Feelings of burden/unfairness</td>
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<td>(0.02)</td>
</tr>
<tr>
<td>Parent negative affect</td>
<td>-0.04*</td>
<td>(0.02)</td>
</tr>
<tr>
<td>Parenting stress</td>
<td>-0.06***</td>
<td>(0.01)</td>
</tr>
<tr>
<td>Child negative affect</td>
<td>0.03</td>
<td>(0.02)</td>
</tr>
</tbody>
</table>

Note: ***p < .001, **p < .01, *p < .05. Gender is coded 0 = female and 1 = male; no significant interactions with gender were found. Day is centered on day 1. Control variables were coded as follows: Not Caucasian (0 = Caucasian, 1 = other race), Not college graduate (0 = college grad., 1 = less education than college grad.), Multiple children (1 = multiple children, 0 = only one child in family), and marital status (1 = living together, not married, 0 = married). Except for the above mentioned controls, all other variables were grand mean centered. Family income was in $1,000 units. Daily variables were split into trait (between-person) and state (within-person) portions and both portions were included in the model.
Study III

Variability in Daily Coparenting Quality as a Predictor of Family and Child Outcomes

Introduction

One of the central components of the family system is the parents’ coparenting relationship, which pertains to the ways in which partners work together in rearing their children and is conceptually distinct from the marital or couple relationship (Feinberg, 2003). Family systems can be quite complex with multiple, interconnected subsystems and relationships (e.g., couple, coparenting, parent-child, etc.). Moreover, changes in one part of the system can reverberate through the entire family system as well as into the well-being of the system’s individual members and subsystems (Cox & Paley, 1997). Gable, Belsky, and Crnic (1992) suggested over 20 years ago that "it is the day-to-day functioning of the coparenting relationship that provides… one important mechanism by which poor marriages both directly and indirectly affect child development” (p. 284, emphasis added). Thus, the current paper focuses on daily variability, or variability, in coparenting quality as a window into the more micro-functioning of the coparenting relationship. We also examine how daily variability may be linked with broader changes in the functioning of the family system and its members long-term.

Family systems theory has often guided the study and conceptualization of family relationships, especially coparenting, and some of the theory’s key tenets occur at the level of micro family processes (e.g., feedback loops, permeability of boundaries between subsystems, etc.; Minuchin, 1985). Although prior work on coparenting has provided us with a better understanding of the moderate long-term stability of the relationship (e.g., Schoppe-Sullivan et al., 2004) and that general mean levels of coparenting quality can be linked with couple relationship and child outcomes (e.g., Brown et al., 2010; Belsky & Hsieh, 1998; McHale & Rasmussen, 1998; Schoppe et al., 2001; Schoppe-Sullivan et al., 2004; Teubert & Pinquart, 2010), coparenting—like many human interactions—inherently occurs in real-time as an ever-
changing family process with multiple family members involved. Indeed, coparenting quality has been shown to fluctuate from day-to-day (McDaniel, Teti, & Feinberg, under review). This is to be expected because the family system must constantly adapt to the stresses and strains of everyday life as it seeks for homeostasis or normal functioning (Minuchin, 1985). Yet, this day-to-day variability is likely important in understanding how coparenting micro-processes may influence the functioning of the family system and its members.

Variability in daily coparenting in relation to family or child outcomes has not yet been examined. Variability—the extent of within-person variation across a period of time—is important to assess, as this can occur even when coparenting quality is high on average across time. It is also possible for families who have the same average level of coparenting quality to differ in their variability from day-to-day. For children, variability in daily coparenting quality can be conceptualized as inconsistent or contradictory caregiving, where parents may be both a source of fear and of comfort. Attachment theory suggests that children who experience low quality and/or inconsistent parenting would be more likely to develop insecure attachments to their parents, as they are unable to feel safe with their parents and utilize them as a secure base (Ainsworth, Blehar, Waters, & Wall, 1978; Sroufe & Waters, 1977). These children therefore may feel unworthy of love and/or begin to view family relationships as unpredictable, leading the children to become withdrawn, angry, and less cooperative; they may also act out in an attempt to more consistently gain the attention of their parents (for a review see Campbell, 1995). Indeed, insecure infant and child attachment has been linked to externalizing behavior problems such as aggression, especially among those with disorganized attachment patterns, and internalizing behaviors in preschool and school-aged children (Groh, Roisman, van IJzendoorn, Bakermans-Kranenburg, & Pasco Fearon, 2012; Lyons-Ruth, 1996; Madigan, Atkinson, Laurin, & Benoit, 2013; Moss, Smolla, Cyr, Dubois-Comtois, Mazzarello, & Berthiaume, 2006; Kochanska & Kim, 2013; Shaw, Owens, Vondra, Keenan, & Winslow, 1996). Inconsistency in the family’s interactions, besides impacting child behavior indirectly through attachment to parents, may also influence the development of behavior problems directly. Indeed, family instability in at-risk samples (such as changes in residence, caregivers, etc.)—although more
extreme than the small daily inconsistencies we expect to observe in low-risk samples—has been associated with greater child behavior problems in young children (Ackerman, Kogos, Youngstrom, Schoff, & Izard, 1999).

Coparenting that is highly variable across days could also be a source of strain on individual parents and couple relationships, although this has not been examined by prior research. Prior cross-sectional and macro-longitudinal research has shown links between the level of coparenting quality and the level of parent and couple well-being, such as depressive symptoms and parenting stress (Bronte-Tinkew, Horowitz, & Carrano, 2010; Solmeyer & Feinberg, 2011; Tissot et al., 2016), and marital quality (Schoppe-Sullivan et al., 2004). Attachment theory is also relevant here for examining adult interpersonal relationships. Indeed, we are relational beings who throughout life desire to bond and form connections with others (Fraley & Shaver, 2000; Hazan & Shaver, 1987), and we would expect daily variability (or inconsistency) in interactions between partners in their parenting (i.e., coparenting) to bode poorly for their individual and relationship functioning. Greater variability in relationship feelings could result in partners feeling more uncertain about the relationship’s future and could heighten their awareness of things that might be wrong in the relationship (Kelley et al., 1983)—all of which should lead to dissatisfaction with the relationship and poorer individual functioning.

Some research has examined variability in relationships or parenting, and greater variability appears to be linked to poor outcomes for children and relationships. For example, greater variability in maternal mood has been related to less positive emotions and poorer sleep in youth (Lawson, Davis, McHale, Hammer, & Buxton, 2014). Additionally, variability in parent knowledge about their youths’ activities predicted worse physical health, greater risk of later drug use, and higher delinquency and internalizing problems in youth (Lippold, McHale, Davis, & Kossek, 2015; Lippold, Fosco, Ram, & Feinberg, 2016). As for impacts on couple relationships, greater variability in daily relationship feelings has been associated with lower relationship trust and worse conflict resolution (Campbell, Simpson, Boldry, & Rubin, 2010). Instability in relationship satisfaction across weeks has also been associated with lower commitment and later relationship dissolution (Arriaga, 2001).
The Current Study

In the current study, we examine variability in daily coparenting across 14 days as a predictor of long-term relationship (couple relationship quality, coparenting quality), individual (parent depressive symptoms), and child outcomes (internalizing and externalizing behavior). We utilize the Daily Coparenting Scale (D-Cop) to measure daily coparenting quality and expand upon the prior work of McDaniel et al. (under review) who developed this daily coparenting measure. As instability and inconsistency in family relationships are theoretically (e.g., attachment theory) and empirically linked to poor family and child outcomes, we hypothesize that greater daily variability in coparenting quality will be related to more negative long-term outcomes, including worse relationship functioning (e.g., lower quality relationships and coparenting), poorer parent mental health (e.g., greater depressive symptoms), and poorer child outcomes (e.g., more problem behaviors). We also hypothesize that the effects of daily variability in negative coparenting behaviors (e.g., undermining, hostility) will be stronger as compared with positive coparenting behaviors (e.g., support, cooperation). This hypothesis is due to much of the close relationship research that has shown negative interactions such as couple conflict or negative interactions often carry more power over relationship quality than positive interactions and support (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001; Gottman, 1994; Gottman & Krokoff, 1989; Markman, Rhoades, Stanley, Ragan, & Whitton, 2010; Rusbult, Johnson, & Morrow, 1986), as well as research on coparenting that has found coparental undermining to be a strong predictor of parental depression (Solmeyer & Feinberg, 2011) and competitive coparenting as more influential on child externalizing behavior than simply low coparenting cooperation (Murphy, Jacobvitz, & Hazen, 2016). As called for by McDaniel and his colleagues (under review), we hope to better understand the potential effects of low versus high levels of daily variability in coparenting.

Method

Procedure and Participants

Participants included both mothers and fathers from 183 heterosexual couples with a young child who were a part of the Daily Family Life Project (DFLP). Participants were currently living together in
the United States and had a child age 5 or younger (M = 2.88 years, SD = 1.33; 55% female). We recruited families through three primary sources: (1) a database of families across the state of Pennsylvania who had expressed that they were willing to be contacted by researchers, (2) announcements on parenting websites and listserves, and (3) flyers in community buildings such as family doctor offices. As the study was conducted entirely online, families were not required to live in the city or state in which the study took place. Families resided in the following U.S. regions: 52% Northeast, 17% West, 16% South, and 15% Midwest.

In terms of relationship length, participants ranged from 2 to 23 years, with 92% in a relationship of 5 years or longer (M = 9.99 years, SD = 4.07). Most were Caucasian (93% for mothers, 89% for fathers), married (95%), had a Bachelor's degree or higher (76% of mothers, 68% of fathers), and were not currently attending school (80%); 57% had more than one child. On average, mothers were 31.52 years old (SD = 4.41; range 20 to 42), husbands were 33.31 (SD = 5.04; range 22 to 52), and yearly household income was approximately $74,000 (SD = $39,000; Median = $69,000), but ranged extensively from no income to $250,000 with 21% of families reporting they were on some form of federal aid (e.g., medical assistance, food stamps, etc.). Also, 68% of mothers and 91% of fathers currently worked for pay (weekly work hours for mothers, M = 31.46, SD = 14.09; for fathers, M = 41.69, SD = 11.56).

Participants were assigned a unique ID number which they used each day they entered responses into our online survey. This ID number was able to link partners within families and participants across days. After study enrollment and informed consent, participants first completed a baseline online survey via a secure server. This survey measured demographic characteristics and included the baseline measure of coparenting (CRS). Then, approximately two weeks after finishing their baseline survey (M = 17.87 days, SD = 9.38) participants completed 14 consecutive days of the Daily Coparenting Scale (D-Cop) and other daily measures before bed. There were 21 participants who dropped out or who did not complete any daily surveys, leaving us with a sample of 345 parents (94% of full sample). Of those who completed at least one day of the daily surveys, participants completed an average of 11.76 days (SD = 2.94 days), with 87% completing 10 or more days, for a total of 4058 person-days of data. Participants then
completed follow-up surveys (not daily diaries) at 1, 3, and 6 months after baseline. For the current study, we chose to focus on the 6 month time point as we were most interested in assessing the potential impact of daily variability in coparenting on long-term outcomes. At 6 months, 274 parents (129 fathers and 145 mothers) responded to the survey, leaving us with a response rate of 75%.

In our multilevel models in SAS Proc Mixed, any missing data on the 6-month outcome variables were accounted for using maximum likelihood estimation. Participants who had any missing data on any predictors however were not included in the final analysis, which left us with a final sample of 336 parents in the relationship and parent outcomes models and 309 parents in the child behavior problems models; we had fewer participants in the child behavior problems models because parents with a child under 1 year of age did not complete the behavior problems measure, as it would not have been appropriate. The only significant differences found between our recruited sample and our sample in our analyses were that mothers were more likely to be in a shorter relationship, $F(1, 180) = 5.60, p < .05$ (although mothers in our final sample still had a mean relationship length of 9.80 years, SD = 4.00), and participants in our sample were more likely to be Caucasian, $\chi^2(1) = 11.50, p < .001$. In the child behavior problems models, besides the differences already mentioned here, participants were also more likely to have more than one child, $F(1, 360) = 10.08, p < .01$, and as would be expected from study requirements the target child was older, $F(1, 360) = 34.80, p < .001$.

**Measure of Daily Coparenting**

**Daily Coparenting Scale.** The quality of daily coparenting was measured by mother and father reports across 14 days using the Daily Coparenting Scale (D-Cop; McDaniel et al., under review). This scale includes 10 items that were created based on a careful review of the coparenting literature and that obtain a sampling of the range of possible coparenting-related feelings and behaviors that parents may encounter on a daily basis. Across the items, parents report on their daily experience of the solidarity of the parenting team, cooperation, support, endorsement, disagreement, undermining, and fairness in the division of childcare tasks. In line with prior psychometric work (McDaniel et al., under review), we split the D-Cop into is two subscales: positive daily coparenting (7 items) and negative daily coparenting (3
items). Parents selected the response to each item that best describes how they worked together as parents today on a 7-point Likert-type scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree). Example items include "We cooperated in parenting" and "We upheld each other's rules and limits to the child." Item responses were averaged for each day to produce an overall coparenting score for each day for each subscale. A higher score indicates greater positive coparenting or greater negative coparenting on that day. In prior work, researchers have shown the subscales to have good internal consistency and reliability to assess within-person changes in coparenting across day (McDaniel et al., under review). In the current study, the subscales also showed good internal consistency (for positive coparenting, average Cronbach's alpha across all days = .92 for mothers and .94 for fathers; for negative coparenting, average Cronbach's alpha across all days = .76 for mothers and .76 for fathers). We defined intraindividual variability in daily coparenting quality as the within-person standard deviation (iSD) across each individual's 14 days of reports (e.g., Ram & Gerstoff, 2009), and greater iSDs represent more overall variability from day-to-day in their reports of positive coparenting or negative coparenting. We also calculated the within-person means (iMean) across each individual’s 14 days as an estimate of the general level of positive or negative coparenting quality across the 14 days.

**Baseline and 6-Month Outcome Measures**

All measures mentioned here were assessed via parent self-report at baseline and then again on the 6-month follow-up questionnaire.

**Coparenting Quality.** Participants completed the Coparenting Relationship Scale (CRS, Feinberg et al., 2012) in order to measure their general level of coparenting quality. This measure includes 35 items that assess a variety of subdomains within coparenting, including support, undermining, agreement, endorsement of partner's parenting, closeness, division of labor, and child exposure to conflict. Example items include "My partner and I have different ideas about how to raise our child" and "When I’m at my wits end as a parent, partner gives me extra support I need." Participants respond to all items on a 7-point scale ranging from 0 (Not true of us) to 7 (Very true of us), except for the child exposure to conflict items which are measured on a 7-point scale that ranges from 0 (Never) to 7 (Very
often, several times a day). Negatively worded items were reverse scored and then items were averaged, with higher scores indicating higher quality coparenting. Feinberg and his colleagues (2012) have demonstrated the CRS to be a reliable and valid measure of coparenting. The CRS also showed good internal consistency in the current study (at baseline, Cronbach's alpha = .94 for both mothers and fathers; at 6 months, alpha = .95 for mothers and .94 for fathers).

**Relationship Quality.** We measured relationship quality with the Quality of Marriage Index (QMI; Norton, 1983), which contains 6 items. First, participants respond to five items concerning the degree of satisfaction in their relationship (e.g., “We have a good relationship” and “My relationship with my partner makes me happy”) on a 7-point scale from 1 (Very strongly disagree) to 7 (Very strongly agree). They then respond to an item regarding the overall degree of happiness they feel in their relationship on a 10-point scale, ranging from 1 (Unhappy) to 10 (Perfectly happy). Items were summed together to create a relationship quality score with higher scores indicating greater relationship quality (at baseline, Cronbach's alpha = .96 for mothers, .95 for fathers; at 6 months, alpha = .97 for mothers, .95 for fathers).

**Depressive Symptoms.** Participants responded to the Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977), which has respondents rate how often they have felt 20 symptoms during the past week relating to depressed mood (e.g., “I felt depressed,” “I could not get going,” and “I enjoyed life”). Items are rated on a 4-point scale ranging from 0 (Rarely or none of the time—less than 1 day) to 3 (Most or all of the time—5 to 7 days). Positively worded items were reverse scored, and then we summed all items to produce an overall depression score. Higher scores indicate experiencing symptoms more frequently (at baseline, Cronbach's alpha = .89 for both mothers and fathers; at 6 months, alpha = .91 for mothers, .90 for fathers).

**Externalizing and Internalizing Child Behavior Problems.** Participants who had a child older than 1 year old (94% of the sample) were given 60 items from the Child Behavior Checklist (CBCL; Achenbach & Rescorla, 2000) which make up the internalizing (36 items) and externalizing scales (24 items). They respond about how each item described their child now or within the past two months on a
3-point scale: 0 (Not true, as far as you know), 1 (Somewhat or sometimes true) and 2 (Very true or often true). Internalizing is made up of items relating to the child being emotionally reactive, anxious or depressed, experiencing somatic complaints, or being withdrawn (e.g., “whining,” “sulks a lot,” “feelings are easily hurt,” and “shows little interest in things around him/her”). Externalizing relates to attention and aggression problems (e.g., “can’t sit still, restless, or hyperactive,” “easily frustrated,” “temper tantrums or hot temper,” and “screams a lot”). Within each scale, items were summed to produce separate internalizing or externalizing ratings for each parent (for internalizing at baseline, Cronbach’s alpha for internalizing = .90 for mothers, .88 for fathers; at 6 months, alpha = .93 for mothers, .93 for fathers; for externalizing at baseline, alpha = .92 for mothers, .93 for fathers; at 6 months, alpha = .93 for mothers, .93 for fathers).

Results

Descriptives and Correlations

Descriptives and correlations between all study variables are reported in Table 3-1. On average, families rated good baseline coparenting quality with fairly high positive and low negative daily coparenting. As expected, variability in positive and negative daily coparenting were often significantly associated with worse month 6 coparenting quality, relationship quality, parent depression, and child externalizing and internalizing. Better average daily coparenting was associated with lower variability in daily coparenting, and average levels of and variability in perceptions of coparenting were moderately correlated between mothers and fathers (as would be expected in interdependent relationships). Variability in positive and negative coparenting were only moderately correlated, suggesting that although variability may often go together in these two domains this is not always the case; some individuals who are volatile on positive daily coparenting may not always be volatile on the negative side.

Analysis Plan

We entered the daily coparenting quality level (iMean) and variability (iSD) in simple multilevel models (MLM) to predict 6-month family and child outcomes (e.g., relationship quality, depressive symptoms, child behavior problems). Each outcome variable has its own model, giving us a total of 5 models with
positive coparenting as a predictor and 5 models with negative coparenting as a predictor. These MLMs have two levels—the individual level (level 1) and the couple level (level 2)—to account for the fact that we have both parents reporting on outcomes nested within families (Singer & Willet, 2003). In all models, gender interactions were tested to examine potential differences between mothers and fathers in terms of the impact of positive and negative coparenting variability on outcomes. We also tested for potential interactions between the level of coparenting and variability, and probed any significant interactions utilizing the PROCESS macro in SAS (Hayes, 2013). We included key controls (e.g., income, race, education, depression) and baseline levels of the outcome variable as predictors. Moreover, by entering both the overall level (iMean) and variability (iSD) in coparenting simultaneously we were able to assess the potential predictive power of variability over and above general mean levels of coparenting. Significant prediction by variability would indicate that measuring variability in future work on coparenting is worthwhile. Additionally, because we control for the baseline level of each outcome, significant prediction by variability would indicate prediction of change (or residualized gain) in the outcome from baseline to 6 months. The basic MLM equations (not showing gender interactions) are presented here:

### Level 1:

\[
Outcome_{ij} = \beta_{0j} + \beta_{1j}Controls_{ij} + \ldots + \beta_{5j}Controls_{ij} + 
\beta_{6j}Baseline\ Level\ of\ Outcome_{ij} + 
\beta_{7j}Mean\ Level\ of\ Coparenting_{ij} + 
\beta_{8j}Variability\ in\ Coparenting_{ij} + e_{ij}
\]

### Level 2:

\[
\beta_{0j} = \gamma_{00} + \mu_{0j}
\]

\[
\beta_{1j} = \gamma_{10}
\]

\[
\ldots
\]

\[
\beta_{8j} = \gamma_{80} + \mu_{8j}
\]

**Variability in positive daily coparenting.** Unstandardized estimates from our models are reported in Table 3-2 for positive daily coparenting and in Table 3-3 for negative daily coparenting. Unexpectedly, variability in positive daily coparenting did not predict changes in coparenting, relationship quality, or child externalizing over time. However, greater variability predicted increases in parent depression over the next 6 months \((B = 3.30, p < .05)\), and variability in positive daily coparenting significantly interacted with gender and the overall level of positive daily coparenting to predict changes
in child internalizing over time \((B = 4.84, p < .05)\). Examining the interaction, we found no effects for women, but for men who had a high average level of positive coparenting higher variability related to greater child internalizing \((B = 5.39, p < .05; \text{see Figure 3-1})\). This relationship was not significant for men with average \((B = 1.28, p = .48)\) or low \((B = -2.82, p = .19)\) positive coparenting.

**Variability in negative daily coparenting.** Although results were more nuanced than originally hypothesized, variability in negative daily coparenting showed more predictive power than variability in positive daily coparenting which was in line with our hypothesis (see Table 3-3). Although variability did not predict changes in relationship quality over time, variability in negative coparenting significantly interacted with overall levels of negative coparenting to predict changes over the 6 months in coparenting quality \((B = -0.16, p < .05)\), parent depressive symptoms \((B = 3.11, p < .01)\), child externalizing behavior \((B = 2.01, p < .05)\), and child internalizing behavior—although this interaction was further moderated by parent gender \((B = 4.69, p < .01)\). After probing the interactions, we found that—for those who were high on negative coparenting—variability in negative daily coparenting predicted a deterioration in coparenting quality \((B = -0.24, p < .05)\), an increase in parent depressive symptoms \((B = 3.87, p < .05)\), and an increase in child externalizing behavior \((B = 3.57, p < .05)\).

Similar to that found in the positive daily coparenting model, we found a significant interaction between variability in negative daily coparenting and gender and the overall level of negative coparenting in predicting child internalizing \((B = 4.69, p < .01)\). Once again, the effect was significant only for men. Yet, this time it was significant for men at both average \((B = 2.26, p = .05)\) and high levels \((B = 5.58, p < .001)\) of negative coparenting, and was not significant for men at low levels of negative coparenting \((B = -1.07, p = .47; \text{see Figure 3-1})\).

**Discussion**

The current study is the first to examine within-person variability in daily coparenting perceptions and to use this variability as a predictor of long-term family, parent, and child outcomes. Overall, we confirmed that daily variability (or instability) appears to be unhealthy for some parent and child outcomes. Specifically, parents who showed higher variability were at risk of increasing depression,
deteriorating coparenting quality, and increases in their child’s behavior problems. This was especially true for parents who already showed high levels of negative daily coparenting behavior on average, and variability in negative coparenting held more meaning for outcomes than variability in positive coparenting.

One of the largest contributions of the current work to the coparenting literature is that variability within individuals’ perceptions of daily coparenting matter for the functioning of the family system and outcomes over time. Although we cannot know whether their perceptions match their actual coparenting behaviors (for example, see Van Egeren, 2004), if the parents’ behavior does indeed vary from day-to-day in their interactions with their child then the child is likely receiving mixed messages and inconsistent parenting. All of this could lead the child to view family relationships as unpredictable, to potentially develop a more insecure attachment to the parents (Ainsworth et al., 1978; Sroufe & Waters, 1977), and to feel less emotional security in regards to their family relationships (Davies & Cummings, 1994). Children may therefore become withdrawn, angry, and less cooperative over time in families where coparenting quality is inconsistent on a daily basis, potentially explaining why we found that, in some families (moderated effect), higher variability in negative coparenting predicted increases in child externalizing and internalizing behavior over time. There is very limited work examining variability in families; however, at least one prior study seems to coincide with our findings. Lawson et al. (2014) found that variability in maternal mood related to youth experiencing less positive emotions and poorer sleep. Future work should examine the potential mechanisms between variability, child attachment and emotional security, and behavior problems directly.

Variable behavior or even perceptions of daily variability in coparenting quality likely lead parents to feel stressed and less confident in the strength and solidarity of their coparenting relationship (similar to Campbell et al., 2010). Our results align with this and suggest that parents’ mental health suffers over time, as marked by ratings of depressive symptoms, if there is high variability in both positive and negative daily coparenting perceptions. Additionally, the quality of coparenting deteriorated for some individuals experiencing high variability in daily negative coparenting. Variability in negative
coparenting behaviors is likely a marker for parents having difficulty working together in childrearing, forecasting negative changes in their relationship as parents across time. However, this did not seem to be the case for couple relationship quality over time. Although variability in daily coparenting quality was significantly associated with relationship quality, it was not predictive of changes over time in relationship quality over above general levels of coparenting quality. This was unexpected due to the strong links that are usually found between coparenting and the couple relationship (Le, McDaniel, Leavitt, & Feinberg, in press; McHale, 1995, 1997; Schoppe-Sullivan et al., 2004), although no prior studies had examined links with variability in daily coparenting. This result may be due to the relative stability in relationship quality over the 6 months in our study and that the majority of couples in our sample had been together for over 9 years. This research needs to be expanded into more at-risk and diverse families to confirm this finding.

In the current work, positive and negative daily coparenting seemed to function somewhat differently and held different meanings for family, parent, and child outcomes. For example, mean levels of positive and negative daily coparenting were highly linked \( r_s = -.53 \text{ to } -.58 \) but variability in positive and negative coparenting were not as strongly linked \( r_s = .37 \text{ to } .49 \) and only moderately linked in mothers \( r = .37 \), meaning that some individuals may experience differing levels of variability in negative and positive coparenting perceptions and behaviors. These differences between positive and negative coparenting coincide with prior work that suggests that support and undermining, although moderately related, are different dimensions of coparenting, and coparenting relationships that are low on support need not always be high on undermining (e.g., Le et al., in press).

Additionally, in support of our hypothesis, negative coparenting was more often linked with outcomes over time. Indeed, the majority of our findings related to variability in negative daily coparenting instead of positive daily coparenting. Our results correspond to prior work that has found negative couple interactions to be particularly potent predictors of relationship quality as compared with positive aspects of relationships (Baumeister et al., 2001; Gottman, 1994; Gottman & Krokoff, 1989; Markman, Rhoades, Stanley, Ragan, & Whitton, 2010; Rusbult et al., 1986) as well as more powerful
predictors of child externalizing behavior (e.g., Murphy et al., 2016). Negative interactions may hold such power because it is often easier for individuals to focus on and recall negative events (e.g., Acitelli, Douvan, & Veroff, 1993). In terms of positive daily coparenting (such as support and cooperation), researchers and intervention scientists should focus more on average levels as opposed to small variations from day-to-day. Variations in positive daily coparenting may hold less meaning because positive coparenting interactions are often much more common between parents than negative coparenting interactions; for example, some have found that some negative coparenting interactions such as interparental conflict in front of the child are somewhat infrequent in many families—rated as occurring less than once or twice a week on average (e.g., Feinberg et al., 2012).

Moreover, the effects of variability in negative daily coparenting on changes over time in family, parent, and child outcomes were moderated by the overall level of negative daily coparenting. Variability was meaningful only for those with higher than average levels of negative coparenting (such as undermining and hostility). These results suggest that family systems and parents that are already stressed from negative interactional patterns are the most easily influenced by daily variability. Perhaps the family system is in such a poor state already that individuals and subsystems within the system cannot handle the additional stress that instability may bring, causing the system to begin to break down. Prior work has shown that an accumulation of risk factors on a given day results in poorer coparenting on that day (McDaniel, Teti, & Feinberg, under review B). It may also be that those experiencing greater negative coparenting have heightened awareness of other potential things that might be wrong with the relationship or feel more uncertain about the relationship’s future (Kelley et al., 1983), which in turn would make individuals more reactive to and perceptive of everyday changes and instability in coparenting. Thus, we would suggest that intervention scientists who are attempting to help couples practice and change the quality of their coparenting should be careful with and mindful of couples who are already struggling with undermining and more hostile coparenting interactions. For instance, some initial work shows that as individuals attend programs and are taught particular skills (such as parenting) they experience greater daily variability in parent-child affective quality (Bamberger, Ram, Greenberg, & Fosco, in prep). Our
work here would then imply that this increased daily instability might set off negative changes in family systems over time if not corrected and watched closely by intervention programs.

Although there are strengths to the current study, such as the longitudinal and daily diary design, focusing on micro-changes in coparenting as opposed to focusing on broad levels of coparenting, gathering data from both mothers and fathers, and a large range in terms of participants’ income and geographical location in the U.S., we note several limitations. The majority of participants were Caucasian, college-educated, and in long-term and stable relationships. As mentioned throughout the discussion section, the current results—although lending some initial support to our hypotheses regarding the meaning of daily variability in coparenting—should be verified in more diverse and at-risk samples. The current results suggest that in low-risk couples those who are higher on negative coparenting are more influenced by variability in negative coparenting. However, it may be that the effects would differ in already at-risk couples, as the family system may already be stressed in a multitude of ways (such as partner instability, neighborhood crime, etc.). Additionally, the current study examines parents’ perceptions of coparenting which—although less biased by potential recall concerns due to our daily diary design (e.g., Bolger et al., 2003)—may not always align with actual coparenting behaviors (Van Egeren, 2004). Future work should seek to verify that both observed coparenting behavior and self-report ratings fluctuate in similar ways on a daily basis.

In conclusion, we make several contributions to the field of coparenting as to how the quality of coparenting on a daily basis and daily variability (or instability) in coparenting can influence families, parents, and children. Specifically, we found that daily variability—especially in negative coparenting—predicted worse family, parent, and child outcomes for some families, including increasing depressive symptoms, deteriorating coparenting quality, and increases in children’s externalizing and internalizing behavior across 6 months. Variability in negative daily coparenting (e.g., undermining, hostility) was more powerful of a predictor than variability in positive daily coparenting (e.g., support, cooperation), which speaks to the multifaceted nature of coparenting and suggests support and undermining—although correlated—can function in separate ways at times and produce different kinds of outcomes. The current
work suggests that parents and couples have no need to be concerned if they often have some good and some bad days in terms of coparenting support and cooperation—indeed, this may be fairly normative; yet, for those parents already struggling with negativity in their coparenting, even the normative ups and downs on a daily basis in negative coparenting interactions may push their family and children toward even worse functioning over time. Efforts to buffer against daily factors that likely produce some of these ups and downs in coparenting quality could include working to divide parenting tasks more fairly and gaining mutual understanding of each partner’s parenting contributions and feelings (McDaniel et al., under review B). Parents who feel they are unable to sincerely and amiably converse about these potentially conflict-laden topics should consult professional counselors and family therapists for assistance in stabilizing their daily coparenting relationship.
References


Bamberger, K., Ram, N., Greenberg, M.T., & Fosco, G.M. (in preparation). A test of family system change in a prevention program: Heterogeneous variance in intensively assessed day-to-day functioning.


Table 3-1. Correlations and descriptive statistics for baseline variables, within-person average daily coparenting and variability, and 6-month outcome variables for mothers and fathers

<table>
<thead>
<tr>
<th></th>
<th>Baseline Controls</th>
<th>Daily Coparenting</th>
<th>Month 6 Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Baseline Variables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Coparenting (CRS)</td>
<td>.43***</td>
<td>.76***</td>
<td>-.44***</td>
</tr>
<tr>
<td>2. Relationship quality</td>
<td>.62***</td>
<td>.51***</td>
<td>-.50***</td>
</tr>
<tr>
<td>3. Parent depressive symptoms</td>
<td>-.40***</td>
<td>-.25***</td>
<td>.27***</td>
</tr>
<tr>
<td>4. Child externalizing</td>
<td>-.37***</td>
<td>-.14†</td>
<td>.30***</td>
</tr>
<tr>
<td>5. Child internalizing</td>
<td>-.36***</td>
<td>-.13†</td>
<td>.38***</td>
</tr>
<tr>
<td><strong>Daily Variables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Positive coparenting mean</td>
<td>.57***</td>
<td>.50***</td>
<td>-.28***</td>
</tr>
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<td>7. Positive coparenting variability</td>
<td>-.36***</td>
<td>-.26***</td>
<td>.07</td>
</tr>
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<td>8. Negative coparenting mean</td>
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<td>.36***</td>
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<td>9. Negative coparenting variability</td>
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<td>-.22**</td>
<td>.16*</td>
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<td><strong>6 Month Outcomes</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>10. Coparenting (CRS)</td>
<td>.65***</td>
<td>.50***</td>
<td>-.47***</td>
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<tr>
<td>11. Relationship quality</td>
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<td>.59***</td>
<td>-.31***</td>
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<td>12. Parent depressive symptoms</td>
<td>-.38***</td>
<td>-.14</td>
<td>.65***</td>
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<tr>
<td>13. Child externalizing</td>
<td>-.21*</td>
<td>-.07</td>
<td>.21*</td>
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<tr>
<td>14. Child internalizing</td>
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<td>-.03</td>
<td>.21*</td>
</tr>
<tr>
<td><strong>Mothers</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
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<td>38.10</td>
<td>11.13</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>0.77</td>
<td>7.01</td>
<td>8.82</td>
</tr>
<tr>
<td><strong>Fathers</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>4.97</td>
<td>37.99</td>
<td>10.42</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>0.75</td>
<td>7.13</td>
<td>8.39</td>
</tr>
</tbody>
</table>

Note: ***p < .001, **p < .01, *p < .05, †p < .10 Mothers' correlations are displayed above the diagonal, while fathers are below the diagonal. Correlations between mothers and fathers are bolded, italicized, and displayed on the diagonal.
Table 3-2. Unstandardized estimates for daily variability (SD) in positive coparenting predicting relationship, parent, and child well-being 6 months later

<table>
<thead>
<tr>
<th></th>
<th>Coparenting (CRS)</th>
<th>Relationship quality</th>
<th>Parent Depression</th>
<th>Child Externalizing</th>
<th>Child Internalizing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>4.91***</td>
<td>37.74***</td>
<td>10.71***</td>
<td>9.02***</td>
<td>5.49***</td>
</tr>
<tr>
<td><strong>Demographic Controls</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>-0.05</td>
<td>-0.29</td>
<td>-0.35</td>
<td>0.74</td>
<td>1.52*</td>
</tr>
<tr>
<td>Income</td>
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<td>0.01</td>
<td>-0.02</td>
<td>-0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Not Caucasian</td>
<td><strong>0.27</strong>*</td>
<td>1.57</td>
<td>2.05</td>
<td>0.37</td>
<td>1.27</td>
</tr>
<tr>
<td>Not college graduate</td>
<td>0.00</td>
<td>-0.79</td>
<td>0.30</td>
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<td>-0.46</td>
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<tr>
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<tr>
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<td>-2.37</td>
<td>-1.55</td>
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</tr>
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<tr>
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<tr>
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<tr>
<td>Parent depression</td>
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<td>--</td>
<td><strong>0.69</strong>*</td>
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<td>--</td>
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<td>--</td>
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<td><strong>Daily Coparenting Predictors</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Positive coparenting mean</td>
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<td>--</td>
<td>--</td>
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<tr>
<td>Gender X mean X SD</td>
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<td>--</td>
<td>--</td>
<td>--</td>
<td><strong>4.84</strong>*</td>
</tr>
</tbody>
</table>

Note: ***p < .001, **p < .01, *p < .05. Gender is coded 0 = female and 1 = male; non-significant interactions were trimmed and are marked with a dash. Control variables were coded as follows: Not Caucasian (0 = Caucasian, 1 = other race), Not college graduate (1 = college grad., 0 = less education than college grad.), Multiple children (1 = multiple children, 0 = only one child in family), and marital status (1 = living together, not married, 0 = married). Except for the above mentioned controls, all other variables were grand mean centered. Family income was in $1,000 units.
Table 3-3. Unstandardized estimates for daily variability (SD) in negative coparenting predicting relationship, parent, and child well-being 6 months later

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<tr>
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<th>Child Externalizing</th>
<th>Child Internalizing</th>
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<td>-0.01</td>
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<td>3.38†</td>
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<td>-0.26</td>
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<td>Relationship length</td>
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<td>0.03</td>
<td>0.03</td>
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<tr>
<td>Marital status</td>
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<td>0.05</td>
</tr>
<tr>
<td><strong>Baseline Control Variables</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coparenting (CRS)</td>
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</tr>
<tr>
<td>Relationship quality</td>
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<td>0.63***</td>
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</tr>
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<td>-0.06</td>
<td>0.62***</td>
<td>0.10*</td>
<td>0.07</td>
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<tr>
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<td>--</td>
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<td>--</td>
<td>0.70***</td>
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<td>Child internalizing</td>
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<td>0.64***</td>
</tr>
<tr>
<td><strong>Daily Coparenting Predictors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative coparenting mean</td>
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<td>-1.14*</td>
<td>1.07</td>
<td>-0.45</td>
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<tr>
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<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>4.69**</td>
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</tbody>
</table>

Note: ***p < .001, **p < .01, *p < .05. Gender is coded 0 = female and 1 = male; non-significant interactions were trimmed and are marked with a dash. Control variables were coded as follows: Not Caucasian (0 = Caucasian, 1 = other race), Not college graduate (1 = college grad., 0 = less education than college grad.), Multiple children (1 = multiple children, 0 = only one child in family), and marital status (1 = living together, not married, 0 = married). Except for the above mentioned controls, all other variables were grand mean centered. Family income was in $1,000 units.
Figure 3-1. Predicted level of child internalizing symptoms at 6 months for mothers and fathers by both the level and variability in positive daily coparenting (see plot “a” and “b”) and by both the level and variability in negative daily coparenting (see plot “c” and plot “d”).
General Discussion

This dissertation examined the quality of coparenting on a daily basis and included three main aims: (1) develop and validate a measure of daily coparenting quality, (2) examine daily predictors of fluctuations in daily coparenting quality, and (3) examine the meaning of variability (or instability) in daily coparenting quality for long-term family, parent, and child outcome. Each of these aims adds substantially to the existing coparenting literature, as no prior work has examined coparenting at more micro time scales than months or years. The largest contributions of this dissertation to the existing coparenting literature include the first daily diary measure of coparenting quality (Daily Coparenting Scale), confirmation of fluctuations in coparenting quality on a daily basis, the potential meanings of daily variability in coparenting quality for families, and potential avenues for targeted interventions to further stabilize and improve coparenting on a daily basis. Within each of these contributions and themes, future directions are also discussed.

The Daily Coparenting Scale (D-Cop)

In Study I, I developed and validated the Daily Coparenting Scale (D-Cop), a 10-item parent report measure, for measuring mothers’ and fathers’ perceptions of the quality of coparenting on a daily basis. No previous studies had examined how coparenting might fluctuate on a more intensive time scale than years or months. Yet, Gable, Belsky, and Crnic (1992) suggested that “it is the day-to-day functioning of the coparenting relationship that provides a window on one important mechanism by which poor marriages both directly and indirectly affect child development” (p. 284, emphasis added). Through an exploratory multilevel factor analysis, I found two subscales within our daily items representing positive (e.g., support, cooperation) and negative daily coparenting (e.g., undermining, hostility). I found evidence of good reliability of measuring within-person changes in these dimensions of daily coparenting, and I also found good
construct validity. For example, in terms of convergent validity, the D-Cop and its subscales related well to an established questionnaire measure of coparenting (CRS; Feinberg et al., 2012). I also found that the D-Cop and its subscales related to couple relationship quality, parent depressive symptoms, and child behavior problems in similar a way as compared to the already established measure of coparenting (CRS). Finally, daily coparenting quality fluctuated in similar ways as daily couple relationship quality, as would be expected since both are subsystems within the overall system that are very closely related (Minuchin, 1985) and have often shown strong links to one another in the literature (Le et al., in press; McHale, 1995, 1997; Schoppe-Sullivan et al., 2004).

Moreover, Study II and Study III of this dissertation provide additional measures of the validity of the D-Cop. In Study II, I found that factors that have often been related to coparenting quality by researchers in prior cross-sectional and macro-longitudinal work—such as couple relationship quality, parenting stress, and parent depressed mood (e.g., McDaniel & Teti, 2012; Schoppe-Sullivan et al., 2004; Solmeyer & Feinberg, 2011; Tissot, Favez, Ghisletta, Frascarolo, & Despland, 2016)—also related to coparenting quality on a daily basis. In Study III, I found that daily coparenting quality related to family, parent, and child outcomes 6 months later, such as coparenting quality, parent depression, and child externalizing and internalizing problems. Taken together, the results of all three studies point to the D-Cop being a valid measure of coparenting quality.

Although the current dissertation provides an initial examination of the D-Cop and its correlates and outcomes, it will be necessary to test the measure in more diverse and at-risk populations. I feel that the measure should continue to be valid in these other populations as items were gathered and adapted from already validated measures of coparenting (e.g., CRS; Feinberg et al., 2012); however, the majority of research in the coparenting field has been conducted on primarily Caucasian and middle class samples, and some have asserted that “virtually every child will be coparented” and that “in some families, a clearly visible coparenting alliance will
develop...[whereas] in others, the system that develops will be more fluid and amorphous” (McHale & Irace, 2011, p. 32). In other words, families and the dynamics within families are complex, and the validity as well as the meaning of our measures of coparenting must be tested across the diversity of family structures. The meanings and experiences of different dimensions of coparenting—such as support, undermining, agreement, etc.—may differ between various family structures and ethnicities. For example, the strength of associations between support and undermining and family and child outcomes may differ, due to various cultural beliefs or socioeconomic experiences. However, coparenting as a “shared activity undertaken by those adults responsible for the care and upbringing of children” is universal (McHale & Irace, 2011, p. 16).

For ease of testing and establishing the initial reliability and validity of the D-Cop, the current dissertation focused on two-parent heterosexual families in stable relationships. However, in families that are less stable in structure and membership on a daily basis it becomes more difficult to utilize a daily measure and less clear what daily ratings would mean. In our sample of fairly stable families, where one of the parents was only sometimes missing for an entire day due to work or travel, the D-Cop functioned well. From an informal examination of the raw daily coparenting data, parents did not appear to rate coparenting dramatically different from one day to the next simply because one partner was not present on a certain day. However, what is less clear is how daily coparenting should be measured in families where there is little or no contact between both parents on a daily basis (e.g., night or double shift workers, those who often travel for work, divorced or separated couples, etc.). Daily perceptions of coparenting would seem to not be valid, at least at times, in these cases. Yet, individual parents likely still have an overall view of the quality of their coparenting relationship. In situations or family types such as these, parents’ day-to-day feelings concerning the quality of the coparenting relationship may be less important than their overall perceptions of the functioning of coparenting or than their
perceptions of coparenting on days when the other parent is actually present. To further complicate this picture of daily coparenting, even families who seem to have no contact with one another may actually be coparenting via technology (e.g., texts, phone calls, emails, online chatting, posts on social media about one’s partner or child, etc.). For example, some work has begun to examine how parents use technology in both positive and negative ways to communicate with one another concerning the coparenting of their child after divorce (Ganong, Coleman, Feistman, Jamison, Markham, 2012). In other words, even families where a daily measure of coparenting may seem irrelevant could experience daily fluctuations in their feelings about the quality of the coparenting relationship. The D-Cop would likely need to be adapted for some of these family situations, and researchers wishing to use the measure should consider carefully whether the items likely occur on a daily or at least almost daily basis in their sample of interest.

Fluctuations in daily coparenting quality

In Study I, I found that perceptions of coparenting quality fluctuated from day-to-day in heterosexual parents. This result confirmed our view that individuals and families are complex and dynamic entities. For instance, even high functioning relationships that appear moderately stable across long periods of time experience fluctuations in quality at more micro-time levels, such as days. Indeed, family systems theory explains families as dynamic systems that ebb and flow in response to individuals and subsystems within the system itself as well as in response to outside perturbations to the system (e.g., Minuchin, 1985; Cox & Paley, 1997). For example, the theory often speaks of feedback loops and a system’s striving for homeostasis. The idea here is that the system is an ever-changing world and that, in order to maintain the functioning and integrity of the system, the system will at times be put off balance and have to find ways to bring itself back to the old functioning point or ways to adapt and find a new functioning point. In other words, our results confirm that the coparenting subsystem functions as would be expected from family systems theory.
Examining coparenting and family processes at the daily level is important for many reasons. I would argue that individuals and families experience life as a lived process (e.g., Bolger et al., 2003), where even the smallest of daily experiences and changes can influence the functioning of families and children in that instant and can potentially cascade out into the overall functioning and stability of the system as a whole. For example, I found in Study II that daily experiences and stresses influenced the quality of daily coparenting, and in Study III I found that the overall extent of variability held meaning for long-term outcomes in some families. In other words, not only does life vary from day-to-day (and even on more micro time scales such as seconds or minutes) but these variations in our experiences often hold meaning for individuals. Moreover, individual’s overall retrospective feelings can be biased via misremembering and recency effects (e.g., Bower, 1981; Shiffman et al., 1997), suggesting that measuring relationship constructs on a daily level should give a more accurate estimate of the overall level of relationship functioning as compared with sampling individuals only once or asking them to recall their experiences for the last few weeks or months (Bolger et al., 2003). Additionally, although researchers often theorize about and attempt to capture cycles and causal processes in families in our research, the data that researchers use is sometimes not on the same time scale as the causal processes they describe. With daily diary (or even more intensively measured) data we may be able to confirm or disprove cycles in family processes that have already been theorized while also identifying new and interesting causal cycles in family processes. A key point here is that depending on the temporal design and spacing of assessments, we gain a very different view of the change processes involved (Collins, 2006). In "ideal longitudinal research," it is crucial that research design and data collection efforts match with the researcher's theories of processes and change (Collins, 2006, p. 507). For example, daily diary data are needed to investigate questions about short-term fluctuation and change processes.
In terms of future directions, the D-Cop can be utilized to examine feedback loops and homeostatic functioning within families in order to better understand these central concepts of family systems theory (Minuchin, 1985; Cox & Paley, 1997). Through a daily examination of cycles and feedback loops we can gain a better understanding of the processes and mechanisms involved in family systems changes. The D-Cop would also be useful in examining times of reorganization and stress in family systems to identify the processes of change. Some events that could be examined include: the transition to first-time parenthood; the birth of a sibling; the child’s attainment of developmental milestones such as walking (as it has been hypothesized that as children age parents must work together more actively to set limits on the child; McHale & Rotman, 2007; Van Egeren, 2003); and reintegration of a parent into the family after military deployment. Information gained from these examinations could also be used to design or improve interventions to potentially break harmful cycles and loops in families or even to stop the cycles before they begin once the negative cycles have been identified by prior work.

Additionally, the D-Cop will likely be useful in examining the reciprocal relations between the couple and coparenting relationship within the family. From a family systems perspective, both the couple relationship and the coparenting relationship are subsystems within the broader family whole separated by permeable boundaries (Minuchin, 1974; Cox & Paley, 1997); therefore I would expect functioning in one to be inherently tied to the other and research on coparenting has generally supported this view (e.g., McHale, 1995; Schoppe-Sullivan et al., 2004). Indeed, I found in Study I and Study II that daily coparenting quality was linked to daily couple relationship quality. Future work could expand on this to examine the directionality of effects between daily coparenting and relationship quality and whether changes in one subsystem hold greater influence over the functioning of the other.

**The meaning of daily variability in coparenting quality for families**
In Study III, I confirmed that minor, everyday variations in coparenting can also hold meaning for long-term family, parent, and child outcomes. Specifically, parents who showed higher variability in coparenting were at risk of increasing depression, deteriorating coparenting quality, and increases in their child’s behavior problems. This was especially true for parents who already showed high levels of negative daily coparenting behavior on average, and variability in negative coparenting (e.g., undermining, hostility) held more meaning for outcomes than variability in positive coparenting. In other words—and although there are many other potential reasons to measure family processes at the daily or more micro levels, such as those I already mentioned earlier—our findings relative to daily variability suggest one potential reason for measuring coparenting at more of a process level instead of only over months or years. If parents’ behavior does indeed vary from day-to-day in their interactions with their partner and child then the child is likely receiving mixed messages and inconsistent parenting. All of this could lead the child to view family relationships as unpredictable, to potentially develop a more insecure attachment to the parents (Ainsworth et al., 1978; Sroufe & Waters, 1977), and to feel less emotional security in regards to their family relationships (Davies & Cummings, 1994). Children may therefore become withdrawn, angry, and less cooperative over time in families where coparenting quality is inconsistent on a daily basis. For similar reasons, variable behavior or even perceptions of daily variability in coparenting quality likely lead parents to feel stressed and less confident in the strength and solidarity of their coparenting relationship (similar to Campbell et al., 2010).

In Study III, I found that variability in negative daily coparenting held more meaning for outcomes than variability in positive daily coparenting. These results suggest that family systems and parents that are already stressed from negative interactional patterns are the most easily influenced by daily variability. Perhaps the family system is in such a poor state already that individuals and subsystems within the system cannot handle the additional stress that instability
may bring, causing the system to begin to break down. The current results suggest that in low-risk couples those who are higher on negative coparenting are more influenced by variability in negative coparenting. However, it may be that the effects would differ in already at-risk couples, as the family system may already be stressed in a multitude of ways (such as partner instability, neighborhood crime, etc.). Future work should examine whether variability in positive and negative coparenting hold different meanings in more at-risk samples as well.

**Potential avenues for targeted interventions to stabilize and improve daily coparenting**

In Study II, I examined predictors of fluctuations in daily coparenting in the hopes of identifying targets for interventions to improve coparenting relationships. The functioning of coparenting has been conceptualized at the center of family well-being (e.g., Feinberg, 2003) and has been linked with a variety of family and child outcomes, such as couple relationship quality, parent depression, and child behavior problems (e.g., Brown et al., 2010; Belsky & Hsieh, 1998; Le et al., in press; McHale & Rasmussen, 1998; Schoppe et al., 2001; Schoppe-Sullivan et al., 2004; Teubert & Pinquart, 2010). Therefore, improving coparenting relationships has the potential to improve many aspects of family and child well-being. I found that daily coparenting was rather reactive to the everyday experiences of parents. Indeed, daily coparenting quality fluctuated in conjunction with fluctuations in daily couple relationship feelings, stressors, parent negative affect, parenting stress, and feelings of burden in the division of childcare. Although this indicates that coparenting is multiply determined and that interventions aimed at a variety of factors could influence the quality of daily coparenting, daily couple relationship feelings and feelings of childcare burden appeared to be the most strongly linked with daily coparenting. Therefore, I recommend that interventions aimed at improving or stabilizing daily coparenting—when not focused on directly teaching coparenting skills to parents—focus the majority of their efforts on stabilizing the quality of the daily couple relationship. It may also be of worth to focus on getting couples to work together—when possible—on household tasks, as this may improve
feelings about the couple relationship (Galovan et al., 2014) while also influencing feelings in the daily coparenting relationship. This is likely due to reduced feelings of burden and unfairness in the division, which perceptions of unfairness or violated expectations are commonly linked with relationship dissatisfaction, especially in mothers (Cowan & Cowan, 1992; Dew & Wilcox, 2011), or less positive coparenting (Khazan, McHale, & Decourcey, 2008; Van Egeren, 2004). Furthermore, interventions designed at helping parents discuss and improve the division of childcare would likely lead to increased functioning in the coparenting relationship in general. Again, improving the average quality of coparenting as well as stabilizing the quality of daily coparenting can be important for family and child outcomes, as I found that families who experienced greater variability in daily coparenting—especially in already stressed families—showed worse family and child outcomes over time.

Besides applying the current work to inform or adapt interventions, future work could also utilize our daily coparenting measure (D-Cop) during their interventions. This would allow them to examine whether their interventions are successful at stabilizing coparenting on a daily basis, what the daily processes of change are, and how certain classes or aspects of the program may influence the quality of coparenting in real-time (if parents are assessed using the measure during the time period while also receiving the classes or programs). There is some initial work to suggest that using daily measures during interventions may be a promising avenue for better understanding the processes of change in intervention programs (Bamberger, 2015).

**Conclusions**

This dissertation examined the quality of coparenting on a daily basis as well as its predictors and outcomes in heterosexual couples with a young child. In Study I, I developed and validated the first measure of daily coparenting quality, the *Daily Coparenting Scale* (D-Cop). Then, in Study II I found that daily coparenting quality—as measured by the D-Cop—was fairly reactive to the everyday stresses and experiences of parents, including daily relationship feelings,
stress, parent mood, parenting stress, and feelings of childcare burden. An accumulation of these everyday stressors and risk factors was also especially detrimental. Finally, in Study III I found that variability in daily coparenting, especially in negative coparenting (e.g., undermining, hostility), was harmful to long-term family, parent, and child outcomes. Besides our examination of daily coparenting in this dissertation which in and of itself is novel, our daily coparenting measure and results add substantially to the existing coparenting literature. Overall, this dissertation provides evidence that the quality of coparenting fluctuates on a daily basis and that these fluctuations hold meaning for families and children. Indeed, I conclude that studying family relationships at more micro-process levels (such as days) is useful and can help researchers to better uncover the processes of change for improving the quality of family relationships.
General Introduction and Discussion References


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2014 – 2015    Prevention Research Center Research Endowment, *Daily Family Life Project*
2013 – 2015    Prevention and Methodology Training (PAMT) Fellowship (T-32)
2013 – 2014    College of Health and Human Dev. Graduate Student Research Endowment
2013    Nominated for the Harold F. Martin Outstanding Teaching Award

Research Experience
2014 – 2016    Principal Investigator and Project Coordinator, *Daily Family Life Project*
2010 – 2016    Research Assistant to Dr. Douglas Teti, *Project SIESTA (Study of Infants’ Emergent Sleep Trajectories)*
2013 – 2015    Research Fellow to Dr. Mark Feinberg, *Family Foundations, Prevention and Methodology Training (PAMT) Fellowship*
2010 – 2012    Research Assistant to Dr. David Eggebeen, *Implications of Fatherhood for Men*

Teaching Experience
Spring 2016    Instructor, HDFS 418: Family Relationships
Fall 2015    Lab Instructor, HDFS 312W: Research Methods
Summer 2014    Instructor, HDFS 229: Infant and Child Development
Spring 2013    Instructor, HDFS 229: Infant and Child Development
Summer 2012    Co-Instructor, HDFS 229: Infant and Child Development
2011 – 2015    Teaching Assistant: Family Relationships (HDFS 418), Child Development (HDFS 229), Research Methods (HDFS 312W), etc.

Selected Publications