Mothers' and Fathers' Perspectives of Coparenting Behaviors in Intact Families: The Exploration of the Brief Measure of Coparenting Relationship Scale Factor Structure

by

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Abstract

The present study's purpose was to examine the psychometric characteristics of the Brief Measure of Coparenting Relationship Scale in dual-parent families. The study aimed to provide further insight into how coparenting perspectives differ between mothers and fathers, across five domains: 1) Division of Labor, 2) Support, 3) Undermining, 4) Endorsement of Partner's Parenting, and 5) Agreement. In addition to examining the factor structure between mothers and fathers, the study examined the strength of indicator loadings on each factor to determine their perceived importance. The constructs were assessed via a self-report Qualtrics survey to participants in the Alabama Healthy Marriage and Relationship Education Initiative (AHMREI). This study employed a multi-group confirmatory factor analysis (MGCFA) to test the hypotheses and follow-up analyses of variance to test scale mean differences between mothers and fathers. It was proposed that mothers will have a stronger loading of indicators on the Division of Labor and Support domains compared to other domains, whereas for fathers, the loadings on Undermining and Endorsement of Partner's Parenting domains will be stronger in magnitude. Due to the conflicting literature suggesting that mothers and fathers may be sensitive to perceived parenting agreement, no a priori hypothesis regarding gender differences was made. The MGCFA analysis indicated issues with the model for mothers and fathers, separately; thus, was terminated. Upon completion of the Confirmatory Factor Analysis, the prespecified fivefactor model was not upheld in the current overall sample of mothers and fathers. Exploratory Factor Analyses revealed two-factor models for the overall sample, mothers, and fathers, respectively. Of note, based on the items for each factor, no discernable constructs emerged. Findings further indicated gender impacted three domains of coparenting: Division of Labor, Undermining, and Endorsement of Partner's Parenting.

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Mothers' and Fathers' Perspectives of Coparenting Behaviors in Intact Families: The Exploration of the Brief Measure of Coparenting Relationship Scale Factor Structure

Coparenting is defined as the collaborative interaction amongst two or more adults for the purposes of childrearing (Garneau & Adler-Baeder, 2015), which initially emerged through the study of primarily divorced families in the 1970's (Baril et al., 2007). Despite the growing rates of divorce in the United States during the latter-half of the 20th Century, Jouriles and colleagues (1991) examined coparenting within a novel context - intact nonclinical families (Feinberg, et al., 2012). Jouriles and colleagues' (1991) study garnered attention and prominence as child-rearing (i.e., coparenting) disagreements, compared to general marital conflict, within in intact families was found to be associated with greater child behavioral problems. Furthermore, since the findings of these earlier studies, there have been substantial changes in the family structure due to cultural, social, and economic drifts (Finzi-Dottan & Cohen, 2016) which have put fathers at the forefront of coparenting equality (Doherty et al., 1998). Due to recent changes in the family structure, in conjunction with previous research's significant focus on mothers when examining coparenting, there are questions as to the generalizability of coparenting literature to fathers. This is an area in need of further exploration in order to assess how recent changes in family structure and cultures have impacted perspectives of interparental relationships inside the home (Isacco et al., 2010).

The theoretical framework for this study is rooted in the Family Systems Theory, which states that the family construct operates through a series of patterned interactions (Fishman, 2013) that provide the foundation for the overall family system. The family is conceptualized as a unit that is comprised of interrelated subsystems (e.g., marital and parent-child subsystems) that influence and impact one another (Pedro et al., 2012; Stroud et al., 2015). Minuchin (1985)

specifically identified the father-mother dyad (i.e., coparents) as part of the executive subsystem that influences family interactions and outcomes. If tension or marital negativity exist within the family, communication amongst partners can become impaired, straining the coparenting relationship and potentially resulting in less effective parenting (Gable et al., 1994). Due to the fact that the coparenting relationship, marital relationship, and parenting style are interrelated parts of the family system (Teubert & Pinquart, 2010), examining the different perspectives of each partner within the home could clarify what factors promote or hinder the functioning of the family system. According to Brown et al. (2010), family system theorists have argued that the patterns of family interactions involving multiple caregivers should be examined. Although the existing literature on coparenting is considerable, there are important gaps pertaining to partners' perspectives of various aspects of in-home parenting behavior (e.g., Division of Labor, Agreement, etc.), particularly mothers' and fathers' perspectives relative to each other. Thus, for the purposes of this study, coparenting perspectives will be examined within intact (i.e., dual parent) families. To date, Don, Biehle, and Mickelson's research is the only known study to examine married or cohabitating partners' parenting perceptions, yet it evaluates just one domain of coparenting – parenting agreement (2013). The present study will expand on this previous research by examining multiple domains of coparenting.

Conceptualizing Coparenting

Theories pertaining to aspects of coparenting have often been applied to post-divorce families (Margolin et al., 2001); however, this trend has drastically changed, as marital and parenting interventions have advanced (Feinberg, 2003). In fact, three additional factors for effective coparenting are present when parents reside together, rather than separately: 1) assisting each other with parenting responsibilities, 2) lending support to the other's authority, and 3)

"conveying an atmosphere of mutual respect and affection" (Margolin et al., 2001, p. 3). Therefore, this conceptualization of coparenting represents the level of communication, division of labor, support, and conflict unique to cohabitating parents (Favez et al., 2016).

McHale (1995,1997) and Belsky et al. (1995) developed measures of coparenting to examine the parental coalition in nuclear families, and to better understand areas of conflict or cohesion that may lead to, or mitigate, the probability of divorce. Early measures of coparenting focused on assessing coparental support (McHale, 1995), emotional and instrumental support in the face of stress (Abidin & Brunner, 1995; Feinberg, 2003; Feinberg, et al., 2012), recognition of partner's achievements/successes (Feinberg et al., 2012), positive/negative coparenting (e.g., covert undermining, interparental warmth; Belsky et al., 1995; McHale, 1997; Mangelsdorf et al., as cited in McHale & Lindahl, 2011), and division of childrearing labor (Cowan & Cowan, 2014). However, a notable weakness of the earlier measures was a lack of an overall conceptual framework underpinning the development of coparenting dimension scales.

Due to the lack of a conceptual model guiding this line of research, Feinberg and colleagues (2003; 2012) adopted an ecological approach to coparenting, by considering individual parental characteristics, child characteristics, the interparental relationship, and stress and support within the familial context (Mangelsdorf et al., as cited in McHale & Lindahl, 2011; Pinto et al., 2018). Based on the concept that coparenting is shaped by these four factors, and through the integration of previous findings (Abidin & Brunner, 1995; Cowan & Cowan, 2014; McHale, 1995, 1997) regarding predictors of coparenting relationship quality and outcomes of coparenting difficulties, Feinberg devised a new conceptualization of coparenting as a representation of four dimensions related to the parent role: 1) childrearing agreement, 2)

coparental support/undermining, 3) division of labor, and 4) joint management of family dynamics (Feinberg, 2003; Pinto et al., 2018).

First, child-rearing agreement refers to how similar each parent's feelings and practices are regarding how to raise children (Don et al., 2013; Feinberg et al., 2012). When the coparenting relationship is plagued by conflict regarding parenting style, stress in the parenting relationship (Margolin et al., 2001), undermining of the other parent's role (Gable et al., 1994; Sevigny & Loutzenhiser, 2009), and feelings regarding a lack of support (Margolin et al., 2001; Varga et al., 2017), the perception of parenting efficacy declines (Margolin et al., 2001). Conversely, parenting disagreement has been linked to behavioral problems in children and adolescents (Belsky et al., 1995; Vaughn et al., 1988), whereas parenting agreement has been linked to greater child social competency (Lindsey & Mize, 2001), marital wellbeing, and better parental adjustment (Don et al., 2013).

Second, although coparenting focuses on how partners work together as a collective unit, the perception of support and undermining within the relationship are two distinct dimensions. The success of the marital system is dependent on the behaviors and attitudes expressed toward one's partner. Based on Feinberg's conceptualization, support refers to acknowledging the coparent's contribution to parenting, affirming and respecting the coparent's authority, and providing encouragement to foster the partner's feelings of parental competence (Feinberg et al., 2012; Jia & Schoppe-Sullivan, 2011). In contrast, parental undermining is defined as the exclusion (Margolin et al., 2011), criticism (Feinberg et al., 2012), blame (Jia & Schoppe-Sullivan, 2011), and disparagement (McHale, 1997) of the other parent. Less supportive coparenting relationships are often plagued by anxiety (e.g., worries about not being loved) and hostility (McDaniel et al., 2018), which impairs one's parenting skills and behaviors

(Krishnakumar & Buehler, 2000). In fact, competent parenting behaviors have been associated with parenting self-efficacy, whereby the internal source of support offered by one's coparent is important in fostering a stronger belief in parenting abilities (Junttila et al., 2007; Sevigny & Loutzenhiser, 2009). When a coparent adapts a competitive approach for the child's affection, it inadvertently restricts the other parent's relationship with the child, resulting in the loss of time spent with the child (Holland & McElwain, 2013; Renk & Phares, 2007), a decline in parental responsiveness to the child's signals for attention and social gestures (Schoppe-Sullivan et al., 2008; Stroud et al., 2015), an increase in familial stress due to inconsistent parental discipline and marital discord (Abidin & Brunner, 1995), and a decrease in parental involvement (Schoppe-Sullivan et al., 2008).

The third domain, Division of Labor, encompasses the amount of domestic work (e.g., household tasks, childcare routines, and responsibilities for child-related legal, financial, and medical issues) divided between partners, particularly each partner's level of involvement and contribution in child-rearing. Even with attempts to agree over the division of chores, if the amount of time spent in domestic roles is perceived to drastically differ amongst partners, or the housework and childcare conducted by a partner does not meet the other's expectations, division of labor can be perceived as unfairly distributed, resulting in less marital satisfaction and feelings of resentment (Dillaway & Broman, 2001; Leslie & Anderson, 1988). Specifically, less marital satisfaction and perceptions of unequal labor division are particularly common amongst employed mothers, as opposed to stay-at-home mothers, due to effort in performing dual roles (i.e., work and family demands; Leslie & Anderson, 1988; Young et al., 2015). In fact, whereas many employed women do not experience a decrease in domestic duties as time in paid work increases, men perform less domestic labor when paid work increases, potentially contributing to

women's perceptions of unjust and unfair distribution of labor (Young et al., 2015). Cohabitating and intact couples, in particular, share a unique context of interaction, for there is a different level of contact and intimacy between intact and cohabitating coparents (Mernitz, 2019). Compared to separated families, interpersonal negotiations and decisions related to finances, housing, and childcare increase in frequency and saliency for intact families (Jamison, 2018).

Fourth, Feinberg conceptualized the joint management of family dynamics domain as the executive subsystem pertaining to parents' ability to 1) balance the level of interactions (i.e., mother vs. father) with the child(ren), 2) retain parent-child boundaries (i.e., avoid parent-child coalitions), 3) control interparental behaviors (e.g., overt and covert attitudes towards one another, interspousal aggression), and 4) foster cohesion within the family unit (Feinberg, 2003; Feinberg et al., 2012, Jouriles et al., 1991; Margolin et al., 2001). One of the main focuses of research pertaining to family management is parental exposure of children to marital conflict, which has been extensively studied and found to be associated with conduct-related behavior problems and poor social competency in children (Jouriles et al., 1991; Porter & O'Leary, 1980).

Given that the coparenting relationship is multidimensional (Baril et al., 2007), Feinberg's novel conceptualization involving the interaction amongst the aforementioned interparental domains, which is often cited within the coparenting literature (Brown et al., 2010; Cook et al., 2009; Favez et al., 2016; Garneua & Adler-Baeder, 2015; Holland & McElwain, 2013), is crucial as the coparenting relationship is more proximal to parenting than other aspects of the couple relationship (Feinberg, 2002). Understanding the value that partners place on their respective roles, responsibilities, and contributions can help identify parental and family characteristics that shape coparenting relationship quality. Based on the four dimensions outlined

here, Feinberg and colleagues (2012) constructed the Coparenting Relationship Scale (CRS; e.g. a full 35-item and brief 14-item version) and examined the factor structure to understand item loadings and the underlying latent construct. It was concluded that a seven-factor structure provided the best fit: 1) Division of Labor, 2) Coparenting Support, 3) Coparenting Undermining, 4) Endorsement of Partner's Parenting, 5) Coparenting Agreement, 6) Exposure to Conflict, and 7) Coparenting Closeness. The exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) conducted by Feinberg and colleagues (2012) addressed a gap in the literature by examining the perspectives of co-resident, heterosexual couples.

Of note, Feinberg and colleagues did not model men and women separately to test for measurement invariance. Measurement invariance between mothers and fathers in regards to other aspects of coparenting (i.e., parenting support, parenting involvement, parenting behavior) have been examined in recent studies (Antunes et al., 2019; Kliem et al., 2018; Le et al., 2019; Van Heel et al., 2019). Van Heel and colleagues (2019) defined measurement variance as determining whether the same factor structure or construct is being measured across informants, stating that "If measurement invariance is not established, the parenting concept is variable across informants" (Van Heel et al., p. 120). Recent findings by Antunes et al. (2019), Kliem et al. (2018), and Le et al., (2019) suggest that similar patterns of coparenting (support, over-reactivity, laxness, parenting goals, etc.) emerged for mothers and fathers. Of note, the aforementioned studies examined specific measures of parenting (i.e., Partner Support for Father Involvement (PSFI) scale and Parenting Scale (PS)-8) and parenting goals (i.e., child love and security, parent image, etc.). Thus, to our knowledge, the invariance of the five coparenting factors proposed by the current study, by gender, have not been examined.

Gender Differences in the Perceptions of Coparenting

Le et al. (2016) noted that limited research has been conducted to understand coparenting from the perspective of both mothers and fathers, despite the fact that both parents have been found to function differently in the coparenting relationship (Margolin et al., 2001). In fact, historically mothers were the primary focus within the parenting literature, resulting in generalizations of coparenting behaviors to all parents, including fathers (Phares & Compas, 1992; Roi & Theiss, 2014). Given that the coparenting experiences (e.g., feelings and behaviors one is exposed to from the coparent; Van Egeren & Hawkins, 2004) differ for mothers and fathers, the factors underlying the coparenting construct proposed by Feinberg and measured by the Coparenting Relationship Scale, need to be validated for each parenting role. Specifically, each parent perceives various aspects of the coparenting relationship to be more important or relevant than others and is often influenced by 1) individual parent characteristics (Feinberg et al., 2012), 2) marital quality and marital satisfaction (Holland & McElwain, 2013), and 3) familial stressors (Abidin & Brunner, 1995), which can each differ based on assumed gender roles within the parenting relationship.

While the term coparenting implies the role of mothers *and* fathers in child-rearing, fathers' role as a coparent continues to be less understood. Of note, until recently, fathers were an underrepresented population in developmental research due to being characterized as inaccessible and less-involved than mothers (Cassano et al., 2006; Phares & Compas, 1992; Rohner & Veneziano, 2001). According to numerous studies, several assumptions explained this trend, such as 1) fathers were less willing or able to participate due to time constraints and work (i.e., fathers were the breadwinners; Rohner & Veneziano, 2001), 2) children did not have contact with their fathers due to divorce (Phares & Compas, 1992), and 3) fathers were suggested

to have no role in the social development of infants (Lamb, 1975). In regards to fathers' involvement, McHale and Irace (as cited in McHale & Lindahl, 2011, p. 16) noted that biological fathers must either live within the home or be in regular contact with the child in order to be considered contributors to the family's coparenting system. Moreover, mothers were often viewed as responsible for child-rearing duties (e.g., diapering, feeding, transporting children to their extracurricular activities, etc.), implicitly suggesting that mothers had more salient and substantive interactions with their children and were more accurate reporters of the child's development (McDowell et al., 2008; Parke, 1996). However, research has shifted to focus on fathers and there is currently substantial literature focused on fathering. Nonetheless, despite this influx of research on this population, fathers' specific roles as a cohabitating coparent continues to be limited. Therefore, assumptions about parenting have been notoriously generalized from studies using samples primarily comprised of mothers (Roi & Theiss, 2014). However, the quality of parent-child interactions has been found to be more important than simply the quantity of time spent between parents and children (Chae & Lee, 2011; Parke, 1996). Although past literature reports that fathers may be unfamiliar and uncomfortable with their coparenting role, many fathers express interest in engaging in coparenting (Isacco et al., 2010). In fact, gender has been found to influence parents' coparenting behavior and perceptions, in conjunction with mental representations of themselves as coparents. Numerous studies have indicated that fathers' engagement and interactions with their children often occur through interactive play that is more goal-oriented (Bradley et al., 2015; Renk & Phares, 2007). These types of interactions have been found to not only increase self-regulatory competence in the child, but have the capacity to create an environment that models prosocial skills (e.g., empowers the child to engage with peers) and encourages exploration (Bradley et al., 2015; Renk & Phares, 2007). As a result, fathers'

perceptions of socially and emotionally competent behaviors may often differ from that of mothers (Renk & Phares, 2007). Therefore, it is important to study the aspects of parenting that are salient to fathers in comparison with mothers as these differences are likely to impact each partner's expectations for what constitutes quality parenting.

Division of Labor is a domain of parenting in which perceptions of engagement can be especially divisive. Mothers may perceive a lack of fairness and advocate for more involvement in domestic responsibilities from fathers. Given that men are often afforded more choice over which tasks to complete and when to complete them (Craig & Powell, 2018), their contribution toward domestic work may be acknowledged more often (Coltrane, 2000). Yet, the household work performed by fathers (i.e., outdoor work and maintenance) tends to be more self-serving (i.e., relevant to themselves, not for the service of others; Craig & Powell, 2018). While men may project a sense of shared responsibilities due to the fact that they work longer hours and often earn more in the household (Coltrane, 2000), women employed full-time generally retain the bulk of domestic responsibilities (Sayer, 2005; Petrassi, 2012), such as cooking, cleaning, grocery shopping, and laundry, yet often do not receive the recognition fathers do when engaging in household tasks. Due to the disproportionate delegation of housework, employed women experience a decline in marital satisfaction and an increase in unhappiness (i.e., depression; Coltrane, 2000), resentment (Dillaway & Broman, 2001), and distress (Coltrane, 2000; Leslie & Anderson, 1988).

Given mothers' dual roles (i.e., full-time employee and primary caregiver), research has indicated that mothers have a tendency to employ gatekeeping behaviors, defined as maternal characteristics, beliefs, and attitudes about father's role, that inhibit the collaborative efforts between partners (Holland & McElwain, 2013; Schoppe-Sullivan et al., 2008). Mothers

consciously or unconsciously employ these behaviors to protect their own authority over parenting (Cowan & Cowan, 2014; Don et al., 2013; Jia & Schoppe-Sullivan, 2011; Mangelsdorf et al., as cited in McHale & Lindahl, 2011); thus, contributing to the emergence of conflict and the erosion of support in the coparenting relationship (Jia & Schoppe-Sullivan, 2011). Specifically, it impacts fathers' coparenting practices, such that, fathers experience difficulty adjusting to the parental role, for their role is not well-defined by social conventions (Brown et al., 2010), which contributes to their dependence on mothers for guidance (Holland & McElwain, 2013). In fact, since mothers are often classified as the primary caregivers, fathers generally spend less time alone with their children; therefore, coparenting support, such as emotional support, respecting opinions and parenting decisions, validating parent's competence, and utilizing cooperative parenting strategies when addressing childrearing-related issues, has a greater impact for fathers within the triadic context (i.e., mother-father-child triad; Brown et al., 2010; Renk & Phares, 2007; Taylor et al., 2015). It becomes problematic when father's support system is enmeshed in the relationship with the child's mother, and the mother's behaviors are maladaptive (e.g., criticism, name-calling, briefly interrupting the father to speak to the child, disrespect for parenting decisions; Van Egeren & Hawkins, 2004), for fathers experience an increased feeling of being undermined by their spouse (Margolin et al., 2001). This contributes to fathers becoming defensive (Van Egeren & Hawkins, 2004), perceiving feedback as a negative reflection of their parenting competence, and the development of more negative childfather behaviors.

Overall, a partner's positive attitude regarding the other partner's parenting competencies (i.e., endorsement of parenting) has been found to be related to the coparenting relationship and marital functioning (i.e., related to the level of support or criticism received by the coparent;

Feinberg et al., 2012). In fact, several studies have indicated that parental consistency contributed to greater perceptions of marital well-being, parents' greater mental health, greater satisfaction in the marital relationship, as well as fosters a stable childrearing environment that promotes the child's social functioning with peers, and increases the responsiveness between parent and child (Don et al., 2013; Lindsey & Mize, 2011; Roi & Theiss, 2014). However, the literature primarily focuses on a parent's own perceptions of coparenting competencies without much consideration for partner's perceptions of the other's parenting (Fagan & Lee, 2014; Holland & McElwain, 2013; McHale, 1997). Maternal gatekeeping behaviors may be a proxy to perceptions of father's coparenting as they involve mother's estimates of father's competence in child-care. If a spouse undervalues the other, tension within the relationship can develop, thereby impacting the perceived level of agreement within the coparenting relationship. When examining which parent is more affected by perceived parental agreement, the literature indicates conflicting findings (Don et al., 2013, Gable et al., 1994; Parke, 1996; Roi & Theiss, 2014; Sevigny & Loutzenhiser, 2009). This contradictory evidence regarding the extent to which spouses agree or disagree about parenting may be explained by the fact that several studies (Deal et al., 1989; Gjerde, 1988) often indirectly measured coparenting (i.e., examining contextual correlates to coparenting, such as whole family functioning, parent-child relationships, or styles of child-rearing; Gable et al., 1994). Additionally, due to frequent contact, trust, and intimacy, which fosters social cohesion, married couples tend to shift toward similar patterns of parenting behaviors and parental communication; thus, creating difficulty in identifying any existing discrepant perceptions (Roi & Theiss, 2014; Rotolo & Wilson, 2006). Due to the limited and conflicting research based on perceived roles for mothers and fathers, future studies should

assess the perceptions of mothers and fathers separately to understand how coparenting perceptions differ (Feinberg, 2003; Hollands & McElwain, 2013).

Present Study

This study will expand upon the current coparenting literature by examining an underrepresented aspect of the coparenting dyad: fathers. Previous research has often neglected the importance of the paternal role in the coparenting relationship due to generalizations from work with mothers as traditional primary caregivers. However, due to the evolution of gender-norms and the family structure, there has been an increase in paternal involvement and changes in coparenting behavior over time (Phares et al., 2005; Renk & Phares, 2007). Further, there has been a lack of research examining partner's *perceptions* of their coparent. Therefore, this study intends to examine the psychometric properties of the Brief Measure of Coparenting Relationship Scale (Feinberg et al., 2012) and consistency of the measurement model across cohabitating mothers and fathers. Through understanding each parent's perceptions and the relevancy of various aspects of parenting to both mothers and fathers, future points of interventions can be devised to help mitigate parental discord and improve family functioning.

Given the previous psychometric analyses conducted by Feinberg and colleagues (2012), it is expected that 5 of the 7 factors will be replicated for mothers and fathers. However, this study will explore whether saliency, as defined by significance and magnitude of factor loadings on the domains of coparenting, will be invariant across parenting role. Four hypotheses related to the factor structure can be derived:

H1 The relationship between the items measuring Division of Labor will be stronger in magnitude in relation to the latent construct, for mothers, compared to fathers.

H2 The relationship between the items measuring Coparenting Support will be stronger in magnitude in relation to the latent construct, for mothers, compared to fathers.

H3 The relationship between the items measuring Coparenting Undermining will be stronger in magnitude in relation to the latent construct, for fathers, compared to mothers.

H4 The relationship between the items measuring Endorsement of Partner's Parenting will be stronger in magnitude in relation to the latent construct, for fathers, compared to mothers.

Follow-up analyses will examine whether mothers and fathers differ in mean levels of the five coparenting subscales. Given the phrasing and recoding of items, lower scores indicate less positive parenting perceptions of the coparent (see Table 1). Based on previous research, the following associations were expected:

H5: There will be a significant difference in mean scores of the Division of Labor domain, such that fathers will report a higher mean score for their partners than mothers will report for their partners. As items were reverse coded, lower scores on this scale suggest that the parent perceives their partner as performing less domestic duties.

H6: There will be a significant difference in mean scores of the Coparenting Support domain, such that mothers will report a higher mean score of perceived coparenting support than fathers' report of perceived coparenting support from mothers. Higher scores on this scale indicate more positive views of the coparent's behaviors.

H7: There will be a significant difference in mean scores of the Undermining domain, such that mothers will report a higher mean rating of their partner than fathers' reports of mothers. As items were reverse coded, lower scores on this scale suggest that the reporting parent feels more disempowered by the coparent.

H8: There will be a significant difference in mean scores of the Endorsement of Partner's Parenting domain, such that fathers will report a higher mean score for mothers than mothers will

report for fathers. Higher scores indicate more positive views of the other parent's coparenting behaviors.

Since the literature provides conflicting findings regarding the importance of parental agreement between mothers and fathers, no a priori hypothesis was generated for this domain.

Method

Participants

The sample was taken from data obtained from the Alabama Healthy Marriage and Relationship Education Initiative (AHMREI) grant, which recruited participants from surrounding communities in Alabama through the distribution of flyers, word of mouth, radio advertising, the Alabama Health Marriage and Relationship Education Initiative (AHMREI) website, and posted advertisement on Auburn Transit Buses. Participants received financial compensation for participation. Given that the data has been completed in conjunction with Auburn University's AHMREI study, the current sample was comprised of 1813 participants (822 males and 931 females). Since the study of interest pertains to coparenting amongst cohabitating couples, of the 1813 participants, 911 participants were excluded due to 1) failure to complete the Brief Measure of Coparenting (N=842; i.e. non-parents) 2) sexual orientation (N=34) and/or 3) do not reside with the coparent (N=35; Table 2). Of note, same-sex couples were excluded, as the level of intimacy, societal influences, communication styles, and division of child-care differ from heterosexual couples (Farr & Patterson, 2013; Linville & O'Neil, n.d.)

The sample consisted of 902 cohabitating, heterosexual participants (409 fathers, 493 mothers), ranging from ages 17 to 90 (M = 39.01 years, SD = 10.88). Racially, the sample was primarily Caucasian (60.1%), with the remainder of the sample identifying as African American (34.8%), Asian American (1.0%), Native-American/Alaskan Native (0.2%), Native

Hawaiian/Other Pacific Islander (0.1%), and Other (3.5%). Only 4.9% (N=44) of the sample identified as Hispanic or Latino. Median household income fell in the 40,000 to 74,999 range, with a sample range from less than 7, 000 to over 100,000. For additional demographic information, refer to Table 3, Table 4, and Table 5.

Procedure

Data utilized in the present study were originally collected as part of a random control trial (RCT) longitudinal study (i.e., AHMREI) examining the efficacy of a 6-week marriage and relationship education program implemented in 10 family resource centers or community agencies across the state of Alabama. For the purposes of this study, only T1 information (baseline measures) was utilized. Participants were provided an informed consent and upon receipt and agreement to participate, they were sent a Qualtrics survey to complete. Participants were provided financial compensation for survey completion.

Measures

Demographic variables

Demographic data (i.e., age, sex, race, income, and educational attainment) were collected via the *Qualtrics* survey (Table 3, Table 4, and Table 5). Exclusion criteria was based on whether individuals were in intact heterosexual couple relationships and completed the Brief Measure of Coparenting Scale. Missing data for all items were imputed using full information maximum likelihood to provide an optimal estimation of missing data.

Brief Measure of Coparenting Relationship Scale (Feinberg, Brown, & Kan, 2012)

The Brief Measure of Coparenting Relationship Scale was adapted from the Coparenting Relationship Scale (CSR; a 47-item measure) to specifically examine the role of the coparent. Feinberg et al. (2012) created additional items and removed other items to distill to a 35-item measure comprised of 7 subscales. The brief measure was developed for the purposes of the AHMREI study by selecting 2 items from each subscale, which was substantiated by previous literature on the coparenting relationship scale. The revised 10 item measure displayed high internal consistency in the current sample ($\alpha_{entire} = 0.872$; $\alpha_{mothers} = 0.878$; $\alpha_{fathers} = 0.867$). Based on Feinberg and colleagues' findings, the items chosen indicated strong correlations with their respective subscale score, as well as effectively capture the core meaning of each subscale. For the purposes of this study, four items were removed due to similar items on the other scales of the overall longitudinal study (i.e., AHMREI); thus, eliminating two subscales from the overall measure: Coparenting Closeness and Exposure to Conflict. Therefore, the Coparenting Relationship Scale utilized for this study consisted of 2 items for each of the respective 5 subscales (correlations between items are provided): Coparenting Agreement (r_{Males}= 0.286; r_{Females}=0.423), Coparenting Support (r_{Males}=0.700; r_{Females}=0.804), Coparenting Undermining (r_{Males}=0.656; r_{Females}=0.686), Endorsement of Partner's Parenting (r_{Males}=0.782; r_{Females}=0.739), and Division of Labor (r_{Males}=0.492; r_{Females}=0.305) subscales. Relevant items were reverse coded so that higher scores on each subscale indicate more positive views of the other parent's coparenting. Samples of items included were "My coparent makes me feel like I'm the best possible parent for our child," "My coparent undermines my parenting" - reversed, "My coparent pays a great deal of attention to our child," "My coparent and I have the same goals for our child," and "My coparent likes to play with our child and then leave dirty work for me" reversed. Parents rated each statement on a 7-point Likert scale (0=Not true of us, 6= Very true of us). A list of items can be found in Appendix A.

Data Analytic Strategy

Preliminary analyses included univariate analyses in SPSS to define the study's sample characteristics with respect to age, race, ethnicity, gender, education, income, length of time living with partner, and relationship to children within the household.

Multigroup Confirmatory Factor Analysis (MGCFA) Measurement Model

Tests of measurement invariance were examined through a multiple-groups confirmatory factor analysis framework using *Mplus version* 8.1. The measurement model (Appendix B) examined was a correlated five-factor model that consisted of two items (three and seven) with primary loadings on Factor 1 (Division of Labor), two items (nine and ten) with primary loadings on Factor 2 (Coparenting Support), two items (six and eight) with primary loadings on Factor 3 (Coparenting Undermining), two items (one and two) with primary loadings on Factor 4 (Endorsement of Partner's Parenting), and two items (four and five) with primary loadings on Factor 5 (Coparenting Agreement). The best fitting model was tested separately among mothers and fathers to ensure the same measurement structure was supported in each group. If supported for each group, restrictive models were to be used for testing 1) configural invariance (equal form; the same number of factors fits both groups) and 2) scalar invariance (constraining factor loadings and intercepts to be equal across groups). To further test for equivalence of factor loadings across groups, a chi-square difference test was also to be conducted. Based on the results of the chi-square difference test, two different analyses would be considered. If determined that the chi-square was non-significant, the equality of factor variances and covariance would be tested. However, if a significant difference resulted between the two comparable models, thereby indicating a decrease in model fit, partial loading equivalence would be examined by freeing parameters that emerged as different, while retaining cross-group

constraints where possible. To test for equivalence of intercepts across groups, a chi-square difference test would be conducted. If a significant difference amongst the two comparable models resulted, partial intercept equivalence would be examined by freeing up the intercept(s) that emerged as different. The equality of factor means are then determined by examining the chi-square difference tests. If the chi-square difference test emerged as statistically significant, mothers and fathers are concluded to differ on perceptions of coparenting.

MGCFA Model Evaluation

To analyze the goodness of fit for the model, the chi-square test statistic, the Root Mean Squared Error of Approximation (RMSEA; Steiger & Lind, 1980), the Comparative Fit Index (CFI; Bentler, 1990), the Tucker-Lewis Fit Index (TLI; Tucker & Lewis, 1973), and the Standardized Root Mean Square Residual (SRMR; Kline, 2016) were computed and evaluated. The following guidelines for determining model fit were utilized: CFI and TLI should be close to 0.95, SRMR, less than or equal to 0.08, RMSEA should be close to 0.06, and the upper limit of the 90% RMSEA confidence interval should not exceed 0.10 (Fergus & Bardeen, 2019; Hu & Bentler, 1999; Kline, 2016). If results determined that the MGCFA fit were inadequate, non-grouped Confirmatory Factor Analyses would be indicated. If these CFA results additionally suggested poor fit, then Exploratory Factor Analyses would be indicated.

Posthoc Analyses

Follow-up analyses of variance (ANOVAs) were conducted to test group differences in mean scores of each coparenting factor between mothers and fathers.

Results

Preliminary Analyses

Descriptive statistics for variables of interest can be found in Table 3. Correlations between all items of the Brief Measure of Coparenting for the entire sample can be found in Table 6. The inter-item correlation between items 9 and 10, which measure Coparenting Support, was strong (i.e., 0.7 or greater) and significant at the .01 level (p=.01), across all three groups (i.e., entire sample, mothers, and fathers). Pallant (2016) defines a small correlation as r=0.10 to r=0.29, a moderate correlation as r=0.30 to r=0.49, and a large correlation as r=0.50 to r=1.0. Of note, for Coparenting Agreement (items 4 and 5R), the inter-item correlation was weak for fathers (r=0.286) and moderate for the entire sample (r=0.36), whereas for Division of Labor (items 3R and 7R), the inter-item correlation for mothers was within the moderate range, of note, it was within the lower end of the range. Inter-item correlations for Coparenting Agreement and Division of Labor were significant (p=.01) across all three groups. Therefore, the items comprising each of the subscales have varying degrees of overlap in helping explain the stability and validity of the underlying constructs.

Missing data

A Missing Value Analysis (MVA) was conducted, using *SPSS version 26*, to examine the nature of missing data for all variables. Based on data output, no frequent missing data patterns were revealed. Moreover, Little's test comparing missingness across all coparenting domains was not significant ($\chi^2 = 15.276$, df = 10, $p \ge .05$; Little, 1988), and the data were considered to be missing completely at random (MCAR). As previously noted, missing data were imputed using full information maximum likelihood.

Outliers

In this study, data were examined for univariate and multivariate outliers. To operationally define the univariate outliers within the current dataset, calculations of the mean +/- 2 interquartile ranges were implemented using *SPSS*. Specifically, the interquartile range (IQR) was defined as the difference between the 75th and 25th percentile. The difference was then multiplied by two in order to calculate two interquartile ranges (2IQR) for each coparenting variable. High outliers were classified as values that exceeded 2IQR above the median for each coparenting variable, whereas low outliers were classified as values that fell 2IQR below the median for each coparenting variable. Univariate low outliers were determined to exist for the following variables: Coparenting Undermining, Endorsement of Partner's Parenting, and Coparenting Agreement. Therefore, the process of fencing, which uses upper and lower fences to cordon off outliers, was utilized. In order to retain all cases for subsequent analyses, low outlier values were recoded using the median minus 2IQR value, with all other values remaining the same.

To further assess for multivariate outliers, Malhalanobis distance was calculated. A linear regression was conducted, with a dummy variable (i.e., individual ID) as the outcome variable, and all subscales of coparenting, as predictor variables. The maximum Malhalanobis distance value of 36.81 was compared against the chi-square critical value (χ^2 = 20.52), which was obtained using a chi-square critical value table with five degrees of freedom (i.e., the number of predictors) and an alpha value of 0.001. Given that the Malhalanobis distance value for several participants was larger than the critical value, multivariate outliers were determined to exist within the dataset. Specifically, seventeen participants met criteria for multivariate outliers based on this analysis and were deleted for subsequent analyses.

Factor Analyses

Multigroup Confirmatory Factor Analysis

While conducting the MGCFA (i.e., applying the model to each group separately to determine whether the same model fit each group reasonably well), errors emerged. Specifically, when determining the fit of the model for mothers, the number of iterations was exceeded, indicating that the model did not converge. Similarly, when testing the 5-factor model for fathers, Mplus noted a "non-positive definite first-order derivative product matrix" emerged, indicating that the model may be nonidentified. Given the error, the identification of the 5-factor model predicted for this study was evaluated. According to the t-rule, which states that the number of parameters to estimate must be equal to, or less than, "the number of nonredundant elements in the covariance matrix" (Brown, 2015, p. 56), the 5-factor model was determined to be identified. Moreover, the residual covariance matrix (Theta) was not positive, which indicates several possibilities, including 1) negative variance or residual variance, 2) a correlation greater or equal to one between two latent variables, or 3) linear dependency among more than two latent variables. Upon further inspection, item 9 exhibited a negative residual variance and the parameter estimate was undefined, according to *Mplus* output. Given that the same general model for both groups was unable to be conducted, all further steps for the MGCFA were terminated. Based on the Mplus default settings, covariances among the latent variables in the model were estimated. According to Card and Little (2007), issues with the model are likely impacted by the number of indicators, as the use of only two indicators creates problems with identification and model fit, whereas, the use of three or four indicators significantly reduces, or eliminates model identification problems and improves model fit. To investigate the data further, a CFA was conducted to determine whether the 5-factor model emerged with the total sample, not split by mothers and fathers.

Confirmatory Factor Analysis

Errors that emerged during the MGCFA indicated potential problems regarding how items were forced to load onto expected factors (i.e., the number of factors specified and the pattern of factor loadings; Brown, 2015.). Therefore, due to the errors encountered when a MGCFA was conducted, it was necessary to determine whether the prespecified aspects of the 5factor model, which were based on past evidence (i.e., Feinberg et al., 2003) and theory, were upheld in the current overall sample of mothers and fathers. The latent variable covariance matrix (PSI) was not positive, suggesting three possible areas of concern: 1) negative variance or residual variance, 2) a correlation greater or equal to one between two latent variables, or 3) linear dependency among more than two latent variables. Mplus output indicated the issue involved the variable, "Undermining", and noted that "Tech4" output should be examined to check for these issues. Upon further consultation of the Tech4 output data, none of the aforementioned concerns were found. According to Brown (2015) the main underlying issue could be that one of the three criteria utilized to evaluate the acceptability of the model is not satisfied. Specifically, the model as a whole does not fit well, "does not reproduce some indicator relationships well, or does not produce uniformly interpretable parameter estimates" (Brown, 2015, p. 139). Failure to fulfill one of the aforementioned criteria is likely related to the removal of four items (i.e., 2 factors) from the Coparenting Measure, a decision made particularly for the AHMREI study prior to data collection. Although Feinberg created and conducted an Exploratory Factor Analysis (EFA) and CFA for a 7-factor model, removing several items from the original brief measure may have lent to a less stable factor structure for coparenting than was expected from previous research. If indicators that once were believed to load on separate factors do not, it could result in a misspecification of the overall model (Brown, 2015).

Exploratory Factor Analysis

Given that several items were removed for the purposes of this study, an EFA was conducted to assess the underlying factor structure without the constraints of a CFA. Determination of the goodness of fit for the EFA models utilized the same guidelines previously discussed when conducting the MGCFA. Additionally, factor loadings were examined to determine whether items distinctly load on to a specific factor (i.e., considered salient). Saliency was determined if 1) the loading on one factor was at least double the magnitude of the loading on the other factor, 2) the loading is statistically significant, and 3) the magnitude of the loading is at least between 0.4 and 0.5.

Overall sample. The fit statistics for all tested factor-solutions were provided in the initial output. Based on the Kaiser-Guttman rule, the oblique exploratory factor analysis (EFA) produced two factors with eigenvalues greater than one (4.752 and 1.526), indicating a two-factor solution is parsimonious. This was further supported by the generated scree plot (Figure C1), which indicated that only eigenvalues for two of the factors were greater than those randomly generated by the parallel analysis; thus, the fit statistics for a one and two-factor model were examined. Additionally, data output was examined for Heywood cases, which are defined as "negative variance estimates or estimated absolute correlations greater than one" (Kline, 2016, p. 237). The one-factor model was examined first and revealed poor fit, χ^2 (35) = 1427.70, p < .001; RMSEA = 0.21, 90% CI [0.201, 0.219], p<.001; CFI = 0.692; TLI = 0.604; SRMR = 0.102. The two-factor model was then examined to determine if fit improved. Although the two-factor model indicated minor improvements in the fit indices compared to the one-factor model and did not generate Heywood cases, it also was a poor fit for the data. Goodness-of-fit statistics

for the two-factor model are presented in Table 7. Factor loadings for the 10-items can be found in Table 8.

Given the poor fit of the two-factor model (which contained all original 10 items), factorloadings were examined to determine whether issues with individual items existed (i.e., crossloadings) that may have contributed to poor fit (see Figure D1). Items 9 and 10 revealed significant cross-loadings among factors (i.e., 0.551 and 0.255 for Item 9; 0.485 and 0.273 for Item 10). Both items were determined to lack saliency, since the loading on factor one was less than double the magnitude of the loading on factor two. Based on this cross-loading that emerged, the inter-item correlations between these items was reviewed. Items 9 and 10 had a relatively strong correlation (r=0.759; Table 6). To determine if the fit would improve, items 9 and 10 were combined to form a composite item and the EFA was re-run. Similar to the originally conducted EFA, based on the Kaiser-Guttman rule, two factors with eigenvalues greater than 1 (4.321 and 1.493) were produced. However, the fit of the two-factor model remained poor (Table 7). As a result, factor-loadings for the nine items were examined (Table 8). Based on the examination of the factor loadings, item 7R indicated significant cross-loadings (i.e., 0.290 for factor 1 and 0.518 for factor 2); thus, the item was removed, as the loading of the item was not salient (e.g., the loading on factor one was less than double the magnitude of the loading on factor two). The removal of item 7R improved the fit of the model, revealing good fit, χ^2 (13) = 34.325, p = .001; RMSEA = 0.043, 90% CI [0.026, 0.060], p=.734; CFI = 0.993; TLI = 0.985; SRMR = 0.015. Factor loadings for the 8-items can be found in Table 8.

Despite the adequate internal consistency of Factors 1 and 2 (α =0.849, α = 0.744, respectively), there are no discernible constructs suggesting conceptual meaning across the two factors. In fact, all positively worded items loaded onto one factor and all negatively worded

items loaded on the other, a deviation from the originally measured factor structure in previous studies. To examine whether the same factor structure for the entire sample differed depending on gender, an EFA was conducted separately for mothers and fathers. The series of modifications made to the EFA conducted for mothers can be found in Figure D1.

EFA for Mothers. Similar to the combined sample, based on the Kaiser-Guttman rule, the oblique exploratory factor analysis (EFA) produced two factors with eigenvalues greater than 1 (4.950 and 1.329). Examination of a two-factor solution was further supported by the generated scree plot (Figure C2), which indicated that only eigenvalues for two of the factors were greater than those randomly generated by the parallel analysis. Although the two-factor solution generated no Heywood cases, it revealed poor fit (Table 7). The two-factor model indicated minor improvements in the fit indices, compared to the one-factor model. The series of modifications made to the EFA conducted for mothers can be found in Figure D2.

Given the poor fit of the two-factor model (which contained all original 10 items), factorloadings were examined to determine whether issues with individual items existed (i.e., crossloadings). Items 5R and 7R revealed significant cross-loadings among factors (i.e., 0.229 and 0.440 for Item 5R; 0.410 and 0.416 for Item 7R). Both items were determined to lack saliency, since the loading on factor one was less than double the magnitude of the loading on factor two. Since item 7R had the worst cross-loading, it was removed (while item 5R was retained in the model) to see if the fit improved. The fit of the model remained poor (Table 7). Alternatively, an EFA in which item 5R was removed (while item 7R was retained in the model) was conducted to determine if the fit of the two-factor model would improve with the removal of the one item. The fit remained poor (Table 7).

Based on the several cross-loadings that emerged (Table 9), the inter-item correlations for mothers was reviewed. Items 9 and 10 had a strong correlation (r=0.804; Table 10). To determine if the fit would improve, items 9 and 10 were combined to form a composite item and items 5R and 7R were retained in the model; thus, the new two-factor model examined contained only nine items. Although several fit statistics improved and were close to the specified guidelines (i.e., CFI, TLI, and SRMR), the fit of the model was inadequate. The factor-loadings for this new model (which contained 9-items due to combining items 9 and 10) was reviewed. Upon examination of the factor loadings, item 7R continued to have significant cross-loadings (0.412 and 0.423; Table 9); thus, was removed from the model, thereby creating a 2-factor model that consisted of 8 items (Table 7). The fit of the model improved significantly and revealed a great fit: χ^2 (13) =24.210, p < .05; RMSEA = 0.042, 90% CI [0.013, 0.067], p=.668; CFI = 0.993; TLI = 0.985; SRMR = 0.017. The same factor loadings for the total sample were also found in the sample containing mothers only.

Despite the adequate internal consistency of Factors 1 and 2 ($\alpha = 0.848$, $\alpha = 0.707$, respectively) there are no discernible constructs suggesting conceptual meaning across the two factors. As previously noted, all positively worded items loaded onto one factor and all negatively worded items loaded on the other, a deviation from the originally measured factor structure in previous studies.

EFA for Fathers. Consistent with the previous EFA results, based on the Kaiser-Guttman rule, the oblique exploratory factor analysis (EFA) produced two factors with eigenvalues greater than 1 (4.608 and 1.824). Examination of a two-factor solution was further supported by the generated scree plot (Figure C3), which indicated that only eigenvalues for two of the factors were greater than those randomly generated by the parallel analysis. Although the

two-factor solution generated no Heywood cases, it revealed poor fit (Table 7). Modifications made to the EFA conducted for fathers can be found in Figure D3.

Due to the poor fit of the two-factor model (which contained all original 10 items), factor-loadings were examined to determine whether issues with individual items existed (i.e., cross-loadings). Specifically, item 9 had strong cross-loadings (i.e., 0.466 and 0.277), as did item 10 (i.e., 0.403 and 0.290; Table 11). Based on the cross-loadings, the items were determined to lack saliency, as the loading on factor one was less than double the magnitude of the loading on factor two.

Several methods were implemented to determine whether fit would improve. Firstly, item 10 was removed from the model (item 9 was retained) due to having the most significant crossloading. The fit remained poor (Table 7). Alternatively, an EFA was conducted in which only item 9 was removed (i.e., item 10 was retained) from model. The fit also remained poor (Table 7). When only item 9 was removed from the overall model for fathers, item 10 maintained significant cross-loadings. Similarly, when only item 10 was removed from the overall model for fathers, item 9 maintained significant cross-loadings. As a result, both items 9 and 10 were removed from the model, reducing the number of items for the two-factor model from ten to eight. Although the CFI, TLI and SRMR were close to the specified guidelines, the TLI was less than 0.95 (i.e., 0.93) and the upper limit of the RMSEA 90% CI exceeded at the threshold of 0.10 (i.e., 0.103; Table 7). Nonetheless, the fit of the model was adequate. Factor loadings for the eight retained items can be found in Table 11. Lastly, the inter-item correlation for fathers was reviewed to determine if there were underlying multicollinearity amongst the items. Based on the relatively strong inter-item correlation (r=0.70; Table 12), items 9 and 10 were combined to create a composite item. This reduced the number of items in the two-factor model from ten (i.e.,

the original model) to nine. An EFA consisting of the nine items was conducted. Although the CFI, TLI and SRMR were close to the specified guidelines, the TLI was less than 0.95 (i.e., 0.91) and the upper limit of the RMSEA 90% CI exceeded 0.10 (i.e., 0.103; Table 7). The model can be considered adequate. Based on the goodness of fit statistics, the 8-item model was retained, as the TLI was closer to the specified guidelines compared to the 9-item model. The series of modifications made to the EFA conducted for fathers can be found in Figure D3.

Based on the items for each factor, there are no discernible constructs. The internal consistency of Factors 1 and 2 was adequate ($\alpha = 0.882$, $\alpha = 0.836$, respectively). Despite the adequate internal consistency of Factors 1 and 2, based on the factor loadings, in which positively worded items load onto Factor 1 and negatively worded items load onto Factor 2, there are no discernable constructs suggesting conceptual meaning across the two factors. As such, this indicates the existence of possible method invariance.

To summarize, despite the fact that a two-factor model emerged for each gender, the specific items retained in the models differed across gender. As a result, we were unable to compare gender differences between mothers and fathers across the newly established models. In other words, we were unable to test H1 through H4 as intended.

ANOVAs

To explore the impact of gender on the various domains of coparenting, five one-way between-groups analyses of variance (ANOVA) were conducted using all original 10-items. For each ANOVA, gender was the independent variable, with participants divided into two groups, (Group 1: males (i.e., fathers); Group 2: females (i.e., mothers)). The five coparenting domains (i.e., Division of Labor, Support, Undermining, Endorsement of Partner's Parenting, and Agreement) were entered individually as outcome variables for each ANOVA. The Levene's

test, which examines the homogeneity of variance, was analyzed. However, for three of the five ANOVAs (i.e., Division of Labor, Undermining, and Endorsement of Partner's Parenting), the assumption of the homogeneity of variance was violated (i.e., p < .05); thus a more robust test, the Welsh test, was utilized. Consistent with several hypotheses (i.e., Hypotheses 5, 7, and 8), there was a statistically significant difference between mean scores for fathers and mothers for three of the coparenting domains (Table 13). Specifically, Hypothesis 5 regarding Division of Labor (F $[1, 868] = 29.158 \ p < .001, \eta^2 = 0.03)$ was confirmed, with fathers reporting higher scores (M =4.53, SD = 1.34) than mothers (M = 4.02, SD = 1.44), as was Hypothesis 7 regarding Undermining, (*F* [1, 814]= 6.72, *p*=.01, $\eta^2 = 0.01$), for mothers reported higher scores (*M* = 4.96, SD = 1.29) than fathers (M = 4.72, SD = 1.40). Hypothesis 8 pertaining to Endorsement of Partner's Parenting, $(F [1, 872] = 9.34, p=.002, \eta^2 = 0.01)$ was also confirmed, with fathers (M =5.36, SD = 0.82) reporting higher scores than mothers (M = 5.19, SD = 0.88). Despite reaching statistical significance, the actual difference in mean scores, for the three coparenting domains, between males and females, was quite small (i.e., eta-squares (η^2) ranged from 0.01 to 0.03). According to Cohen, an effect size of 0.01 (as measured by eta-squared) is classified as small, whereas an effect size of 0.06 is considered a medium effect and 0.14 is considered a large effect size (Pallant, 2016). Inconsistent with Hypothesis 6, which pertained to the domain of Coparenting Support, mothers and fathers did not significantly differ in their reported scores.

Discussion

The present study examined the psychometric characteristics of the Brief Measure of Coparenting Relationship Scale between mothers and fathers in dual-parent families, which was based on prior research conducted by Feinberg et al. (2012) and rooted in the Family Systems Theory. Additionally, the study extended current coparenting literature by incorporating the often under-represented perspective of fathers, in order to provide insight into how the importance of multiple domains of coparenting may differ between mothers and fathers. The present study addresses an aspect of coparenting that has been neglected - partners' parenting perceptions. By adopting the novel approach of examining mothers' and fathers' perspectives separately, rather than as a unit, the potential variance that exists between mothers' and fathers' coparenting roles was studied, allowing for a greater understanding of which aspects of parenting were more salient to each gender. These findings contribute to better understanding areas of possible conflict or cohesion that may lead to, or mitigate, the probability of divorce.

Factor Analyses

The structure and measurement invariance of the Brief Measure of Coparenting among mothers and fathers was examined using a Multigroup Confirmatory Factor Analysis (MGCFA). The adequacy of the correlated five-factor solution found in prior studies (Feinberg et al., 2012; Pinto et al., 2018) was not replicated in this sample of coparents. The MGCFA was terminated during the initial stage, as neither five-factor model for mothers and fathers, separately, yielded interpretable results. Thus, a Confirmatory Factor Analysis (CFA) was conducted to determine whether the prespecified 5 factors from previous psychometric studies existed in general for the overall sample. The CFA for the current sample failed to run due to issues associated with the Undermining variable. Output obtained from the CFA indicated that criteria utilized to evaluate the acceptability of the model was not satisfied. Removal of items from the original brief measure likely contributed to the problems with the CFA model, as it may have created a new conceptualization of coparenting (Brown, 2015), thus causing a misspecification of the forced model. Moreover, dependency within the data (i.e., nested data) further contributed to the issues
with the model. Future analyses should aggregate the data to adjust parameter standard errors and the goodness of fit statistics (Feinberg el al., 2012).

Multiple exploratory factor analyses were conducted to evaluate the underlying structure of the revised brief measure used in the AHMREI study. Various two-factor models were retained for all three groups, thereby indicating that the factor structure of the Brief Measure of Coparenting utilized in the current study did not demonstrate the same dimensions proposed by Feinberg et al., (2012). For each group (i.e., entire sample, mothers, and fathers), multiple steps were administered to assess the multicollinearity and/ or saliency of items with cross-factor loadings.

The items comprising the 14-item Brief Coparenting Relationship Scale designed by Feinberg and colleagues (2012), were chosen due to having strong correlations with their respective subscale score and were noted to effectively capture the core meaning of each subscale. However, in the current study, the 2-items chosen to represent Division of Labor and Coparenting Agreement domains had moderate to poor correlations. In particular, Division of Labor correlations for the entire sample was 0.391 and for mothers, 0.305. In regards to Coparenting Agreement, the correlation amongst items for the entire sample was 0.364 and for fathers, the correlation was 0.286. Therefore, the items utilized for the Brief Measure of Coparenting for the current study may not be the most representative of the overall domains, as the correlations for these items may suggest inadequate overlap on the latent constructs for each subscale. On the contrary, the correlation between the two items measuring Coparenting Support was significantly higher (i.e., between 0.70 and 0.80). This may indicate that the items represent significant overlap and could be combined to form a composite item. This was done in the present study for new EFAs run, which improved the fit of these models. Based on the findings

regarding the poor correlation between items (3R and 7R) measuring Division of Labor, and lack of saliency, item 7R was removed, whereas items associated with Support were combined due to the high correlation that emerged. For the entire sample, a two-factor model, consisting of 8items emerged and revealed great fit. However, as previously noted, when examining the entire sample, there was shared variance amongst couples (i.e., sample with dependent observations); thus, EFAs were also conducted for mothers perceptions of fathers' coparenting and fathers perceptions of mothers' coparenting to determine whether the same factor structure for the entire sample differed depending on parenting role. With regard to mothers' reports of fathers' coparenting, the exact two-factor model from the total sample emerged, revealing great fit. On the contrary, a two-factor model consisting of 8-items, emerged to reveal adequate fit for fathers. The difference in the factor structure for fathers' report of mothers' coparenting, is explained by the correlation for Division of Labor (items 3R and 7R), which was neither poor (r=0.492), nor lacked saliency; therefore, the items were retained. Additionally, as opposed to the other twomodels, items measuring the construct Support (items 9 and 10) had significant cross-loadings for fathers and therefore were deleted.

Based on the poor correlation amongst items and significant overlap between items across the various models, future studies should consider adding additional indicators to the measure to provide more coverage for those constructs. Additionally, given the variability in the factor structure of the Brief Measure of Coparenting utilized in the current study and the factor solution proposed by Feinberg et al. (2012), additional EFAs should be conducted with independent samples to cross-validate the Brief Measure of Coparenting.

In addition to the examination of item correlations, the content of the individual items was explored to further understand the pattern of items that loaded onto each respective factor.

Items that were positively phrased were noted to consistently load onto Factor 1 and items that were negatively phrased and reverse-coded consistently loaded onto Factor 2. As a result, Factors 1 and 2 from the present study appeared to be an amalgam of the original Coparenting Support, Endorsement of Partner's Parenting, Coparenting Undermining, Division of Labor, and Coparenting Agreement subscales; thus, indicating potential methodological error. According to Brown (2015) and Podsakoff and colleagues (2003), a common consequence when conducting an EFA on questionnaires composed of a combination of positively and negatively worded items is being left with 2-factor solutions that may have "little substantive basis," as the loadings are often impacted by response styles due to the wording of the items (p. 41). Brown (2015) further indicated that factor selection should rely on prior theory, substantiated research, and practical considerations to foster interpretability of the factors, as opposed to goodness of fit alone; therefore, factor structures with reasonable fit may be deemed unacceptable if factors have no conceptual utility (i.e., poorly defined factors, indicators have high loadings on multiple factors, etc.). As such, while the factor solutions that emerged in the present study demonstrated adequate fit, the constructs that emerged may be trivial, rather than unique, as originally determined by Feinberg et al. (2012), for only two indicators were utilized to measure each construct. Measures utilizing only two indicators are categorized as poorly defined and may not consistently capture the measured construct across studies, as well as result in unstable factors across replications (Brown, 2015). In fact, the lack of stable factors across replications is further indicated by the factor model that emerged within the present study that differed from the factor structure determined by Feinberg and colleagues (2012). Therefore, the interpretation of the twofactor models that emerged for the three groups remains in question. The two resulting factors did not suggest separate conceptual constructs of a discernable nature across mothers and fathers. However, it is worth noting that the 10-item Brief Measure of Coparenting did display adequate internal consistency in the current sample, suggesting that it is a stable measure of mothers and fathers' perceptions of the coparenting relationship. Future research would benefit from retaining the 4-items that were removed from the current study.

The lack of an established pattern or commonality between item loadings indicates the potential influence of other methodological errors, such as response styles. Two styles of response bias may have impacted the current EFA results. First is the potential influence of social desirability, in which participants respond to items in order to portray themselves in a favorable manner. Given that participants self-selected to participate in the study and not all are necessarily part of a targeted at-risk population, it is possible that participants were less likely to report significant coparenting issues in general; thus, it is less likely that social desirability is interfering with participants' response patterns. Moreover, Feinberg and colleagues (2012) also had participants complete a social desirability measure as a part of their study and found minimal association between the CRS and its subscales and social desirability. While previous studies were able to rule-out the influence of socially desirable response patterns, the current study did not incorporate a social desirability measure; thus, we cannot definitively rule-out that social desirability did not interfere with the factor loadings. Secondly, the leniency bias may influence the results, as the study is designed to examine one partners' perception of the other's parenting. The leniency bias was defined by Podsakoff et al. (2003), as the tendency for participants to give higher ratings to persons they know well. Therefore, it is very likely that participants will rate those with whom they are more intimate in a more positive light, particularly on negatively worded items. Upon further examination of the participant's original data (i.e., prior to reverse coding items), a restriction in range pertaining to ratings on negatively worded items indicates

that the leniency bias may be a reasonable methodological concern. Whereas, responses for positively worded items significantly varied across the 7-point Likert scale (i.e., ranged from zero to six; Table 14), a majority of responses on negatively worded items ranged from zero through two, indicating lower reporting of significant coparenting problems (Table 14). Certain safeguards, such as reverse-coding items, were utilized to account for this type of bias.

This study indicates that the phrasing of items can influence coparent's responses, such that a coparent's reported perceptions of their partner's parenting may not translate into an accurate depiction of their true perceptions. Nonetheless, reverse-coding negatively worded items increases the likelihood that a more accurate depiction of coparent's perceptions of their partner's behaviors were obtained.

Analyses of Variance

Upon further examination of post hoc analyses, group differences have been found for three of the five domains of coparenting between mothers and fathers (i.e., Division of Labor, Coparenting Undermining, and Endorsement of Partner's Parenting).

Specifically, mothers reported slightly lower levels of Division of Labor, indicating less satisfaction regarding the division of household work, which is consistent with previous research (Craig & Powell, 2018; Leslie & Anderson, 1988; Young et al., 2015). The perceived unequal division of labor could be explained by the number of employed mothers that participated in the current study (N = 340), as employed mothers often perform dual roles, pertaining to work and family demands, whereas stay-at-home mothers do not (Leslie & Anderson, 1988; Young et al., 2015). Additionally, employed women continue to retain the bulk of domestic responsibility, even as time in paid work increases; however, their male counterparts often perform less domestic labor as paid work increases (Sayer 2005; Petrassi, 2012; Young et al., 2015). This

fosters resentment and distress, and results in a decline in marital satisfaction (Coltrane, 2000; Dillaway & Browman, 2001).

Coupled with mothers' dual role as full-time employee and primary caregiver, mothers engage in maternal gate-keeping behaviors that inadvertently restrict the fathers' parenting and relations with the child, while also protecting their own authority over parenting (Cowan & Cowan, 2014; Don et al., 2013; Jia & Schoppe-Sullivan, 2011). According to Shoppe-Sullivan and colleagues (2008), gatekeeping behaviors play a vital role in the coparenting relationship; therefore, mothers likely engage in gatekeeping behaviors for several reasons, such as the need to maintain their identity and the lack of confidence in the fathers' competency pertaining to childcare. As a result, gatekeeping behaviors may be overtly displayed through criticisms of the father's attempt to become involved in childrearing and leads to defensiveness in fathers (Cowan & Cowan, 2014). Consistent with previous research and the proposed hypothesis, fathers were found to report feeling more undermined than their maternal counterparts and fathers were reported to have higher levels of Endorsement of Partner's Parenting (e.g. provided greater endorsement of mother's parenting). As previously noted, maternal gatekeeping behaviors may be a proxy to perceptions of father's coparenting as they involve mother's estimates of father's competence in child-care. Mothers' lower levels of Endorsement of Partner's Parenting are influenced by their concerns regarding their estimates of fathers' competence in child-care and conscious or unconscious employment of maternal gatekeeping behaviors. Given these findings regarding Division of Labor, Endorsement of Partner's Parenting, and Coparenting Undermining, this study highlights the need for future work to clarify gender differences amongst the various aspects of coparenting, as Feinberg and colleagues (2012) had not tested for gender differences in the coparenting dimensions.

Influences of the Family Structure

Perceptions of partners' parenting may also be influenced by the evolution of the family structure, which is influenced by cultural, social, and economical factors. Due to increased prevalence of divorce (Garneau & Adler-Baeder 2015), increasing number of cohabitating stepfamilies (Forehand et al., 2014), and changing views regarding cohabitation prior to marriage, the family structure likely consists of a combination of adoptive parents, biological parents, stepparents, male cohabitating partners (MCP), and female cohabitating partners (FCP; e.g., biological mother and stepfather, biological mother and MCP, etc.). In fact, according to McGene and King (2012), approximately fifty percent of all children reside without their biological father at some point during their childhood. Additions or changes to the family system coincide with changes to the coparenting relationship and redefining coparental roles, as one's value system changes (Ganong et al., 2015; McGene & King, 2012). Therefore, one's parentage to the child may influence coparents' perceptions of their partner's behaviors. Although a benefit of the present study was that it explored parents' relationship to children within their home (Table 5), when completing the Brief Measure of Coparenting and other parenting measures, participants were not instructed to note a specific child to reference; thus, their parentage to the child being referenced is unknown. Age of the child could influence parent's responses, as it influences parents' engagement in interactions with the child (i.e., parent involvement), as well as who the mother feels to be most parentally responsible for the child (Favez et al., 2015). For example, according to Favez and colleagues (2015), the younger the child, the more criticism towards the biological father, than the stepparent or cohabitating partner; however, as the child ages, the level of disparagement and conflict transfers to the new partner or spouse.

Of note, a majority of parents were noted to be biological (Table 5); therefore, research pertained primarily to this demographic. However, a minority of parents also identified as stepparent or adoptive parent. Based on the literature review conducted, limited research has focused on coparenting between adoptive parents.

Nonetheless, views regarding Division of Labor were less likely influenced by parents' relationship to the child, as traditional gender roles and expectations continue to be infused within the family dynamic (Reid et al., 2014; Weaver & Coleman, 2010). Although males (fathers, stepfathers, MCPs, etc.) contribute to household duties, family decisions, and childcare, they are often characterized as the breadwinners (i.e., providing financial support), whereas females maintain the majority of domestic duties and childcare (Ganong et al., 2015; Reid et al., 2014; Weaver & Coleman, 2010), regardless of parentage (Weaver & Coleman, 2010). In fact, women's responsibilities not only increase, but become more complex as they become the main disciplinarian (Weaver & Coleman, 2010) and the mediator between the child and stepparent, while working to foster the child's relationship with the biological father (Forehand et al., 2014; Weaver & Coleman, 2010).

Male's perception of being undermined by their female counterparts and feelings of parental competency remains, as these finding were statistically significant. However, the magnitude of the findings was limited, and questions about the clinical significance remain. McGene and King (2012) indicated with the addition of a new spouse or child to the family dynamic results in new standards that conflict with existing standards held by one's partner (Forehand et al., 2014). This is likely prevalent within families consisting of one biological parent and a cohabitating partner, as well as within adoptive households, as the blending of ideals and values needs to occur in order to collaboratively coparent. Not only do step-couples

have different standards for parenting children, but stepparents encounter ambiguous situations in which they are expected to know when, and when not, to become involved, resulting in an increase in confusion and boundary violations (Forehand et al., 2014; Ganong et al., 2015). Thus, amongst step-couples, childrearing is the primary point of contention within the relationship (Garneau & Adler-Baeder, 2015). This is likely explained by the fact that gatekeeping behaviors become more prevalent within stepfamilies, as custodial mothers view themselves as the most experienced and invested with their child (Weaver & Coleman, 2010), thus assuming the role as protector and delegating roles in parenting the child (Ganong et al., 2015). Specifically, custodial mothers limit stepfather's involvement in child-rearing (Forehand et al., 2014; Ganong et al., 2015), and will undermine stepfathers role as disciplinarian, to preserve boundaries until the stepparent becomes more involved in the children's life (i.e., attending school or athletic events, communicating, and playing with them). This inadvertently demotes stepfathers to "secondary figures in the coparental support network" (Ganong et al., 2015, p. 228; Weaver & Coleman, 2010).

Regarding intact, cohabitating couples, maternal gatekeeping behaviors are projected to be a proxy to mothers' perceptions of father's coparenting, as it factors in mother's estimates of father's parenting competency. Similar findings have been noted within stepfamilies. Specifically, custodial mothers continue to express concerns regarding parental competency towards stepmothers. According to Ganong and colleagues (2015), stepmothers are often perceived to lack competence in child-care, as they are associated with the ex-spouse, who is viewed as irresponsible. In order for mothers to endorse stepparents, several criteria need to be met, including 1) stepparent is perceived to be an adequate caregiver; 2) the relationship with the biological parent is amenable, allowing for cooperative coparenting; 3) biological fathers, and

their new partner are viewed as responsible; and 4) mothers are secure in their role as the primary parent (Ganong et al., 2015). If failure to fulfil the criteria occurs, mothers' gatekeeping behaviors continue towards new partners. When stepparents feel supported and effective within their roles, their involvement with stepchildren increases (Garneau & Adler-Baeder, 2015). In fact, as the custodial mother begins to seek a partner's input regarding child-rearing, cohesion within the relationship increases, as does stepfathers and/or male cohabitating partner's competency as a parent and their involvement with the child (Forehand et al., 2014). When stepparents are not included within the decision-making processes, discipline, or perceive to be uninvolved in the child's life (i.e., not attending school or athletic events), this has been shown to increase parenting negativity (Garneau & Adler-Baeder, 2015). Weaver and Coleman (2010) noted that this has caused stepparents to be relegated to perform childcare duties without being viewed as a mother or father figure by the child.

The lack of emerging gender differences amongst the domains of Agreement and Support may be influenced by the high proportion of stepfamilies enrolled in the study coupled with other various family structures (foster families, adoptive families, etc.), as well as by other factors, such as the age of the child, the amount of time spent with the child, level of cohesiveness within the family unit, and parent's expectations based on their relationship in a previous marriage(s) (Favez et al., 2015). For example, according to Favez and colleagues (2015), the younger the child, the more criticism towards the biological father, than the stepparent or cohabitating partner; however, as the child ages, the level of disparagement and conflict transfers to the new partner or spouse. Of note, the current study did not consider, nor controlled for, the age of the child; thus, was a limitation.

Given the multitude of factors influencing the coparental relationship within blended, step, adoptive, and foster families, additional research focused separately on these populations is necessary in order to parse apart how the coparenting dynamic changes and whether aspects of coparenting are deemed more important based on the family structure. As previously noted, the parenting variables did not clearly address a specific child in which parentage could be clearly defined, nor accounted, or controlled for, the age of the child. The parent's relationship to the child may be a potential moderator contributing to the results; however, based on the data collection methods and phrasing of questions, this is unable to be determined within the present study.

Methodological Error

Moreover, the current study highlighted the influence of methodological error on the data's findings. Due to the plethora of potential impacting factors, several studies (Brown, 2015; Podsakoff et al., 2003; Reio, 2010; Spekle & Widener, 2018) have highlighted potential solutions to test, or control, for method variance. Two of the most commonly discussed and utilized solutions are Harman's single-factor test and partial correlation analysis. However, there are several limitations with these suggested analyses. In regards to Harman's single-factor test, it is only able to indicate whether common method bias is existent, but can neither control for it or correct it (Tehseen et al., 2017). Moreover, the conclusion is often invalid as the test can only detect common method bias if the bias accounts for either a significant majority of or the totality of the covariance among the measures, which is unlikely; thus this test is not highly recommended (Podsakoff et al., 2003) and was not conducted as part of the scope of this study. Partial correlation analysis is also recommended if the study included independent measures of expected bias (i.e., social desirability). Additionally, several researchers have indicated that this

method also has several limitations including 1) it focuses on the construct level and therefore is unable to provide insight into the other potential sources of common method bias (i.e., social desirability, leniency effects, acquiescence; Podsakoff et al., 2003) that occur at the individual item level (King, et al., 2007); 2) the method is not always empirical, nor does it consistently work well, as it requires significant forethought (i.e., potential markers for common method bias need to be addressed during the design phase of the study; Spekle & Widener, 2018); and 3) similar to Harman's Single-Factor Test, it can only indicate if common method bias is present or not, but does not indicate specifically what the issue may be (Tehsenn et al., 2017). As previously noted, the current study did not include independent measures of social desirability; therefore, the partial correlation method could not be implemented. Neither the single-factor test nor partial correlation would be able to substantially indicate the primary type of common method bias in the data. Although Harman's single-factor test suggests that common method bias is not influencing the data if the unrotated factor solution indicates more than one factor (Reio, 2010), according to Podsakoff and colleagues (2003), this finding is insufficient to suggest that common method bias is not problematic; thus other statistical remedies (e.g., partial correlation analysis) recommended. As a result, when utilizing the Brief Measure of Coparenting, future studies should incorporate independent measures of social desirability, which will allow the implementation of the partial correlation analysis, a preferred analytic process, to rule-out its impact on participants' responses on the Brief Measure of Coparenting.

Role of Fathers

Feinberg and colleagues (2012) understood that fathers played a role within the coparenting dyad, which was evident through their examination of couples. However, fathers' specific role in the coparenting relationship has been less understood. Historically, parenting

literature focused on mothers, resulting in generalizations of coparenting behaviors to fathers and a misrepresentation of their roles within the home (Phares & Compas, 1992, Roi & Theiss, 2014). Given that fathers have been found to function differently within the coparenting role than mothers (Margolin et al., 2001), fathering research has shifted to focus on fathers' presence within the home and their level of involvement with their children to obtain a more accurate depiction of their coparenting role (Green & Chuang, 2020). Recent literature (Bradley et al., 2015; Hauari & Hollingworth, 2009; Shears & Robinson, 2005) indicated that fathers' parenting and caregiving behaviors occur in the form of interactive play and social activities. As such, fathers' understanding of their roles have adapted over the recent generations, yet the idea of "good fathering" continues to be defined by traditional perceptions of fathers' roles (i.e., breadwinners; Hauari & Hollingworth, 2009). Therefore, fathers' perspectives of coparenting may not be represented in current measures of coparenting and may focus primarily on mothers' behaviors.

Upon further inspection of the current study's measure, The Brief Measure of Coparenting questionnaire may more accurately capture mothers' behaviors, as the phrasing of items measuring Division of Labor focused on the lack of fairness regarding the distribution of household duties- a primary stance reported by many mothers. In fact, according to Hauari and Hollingworth (2009), literature and media continue to stress mothers' difficulty managing employment and household demands; however fail to consider fathers' own role conflict, as fathers have difficulty increasing their involvement within the home as a result of work demands (Hauari & Hollingsworth, 2009; Young 2015). Additionally, the following item "My coparent likes to play with our child and then leave dirty work for me" referred to the other parent engaging in play with the child while ignoring other responsibilities. This is likely skewed

towards mothers' perspectives, as it was previously noted that fathers engaged in more play with child, as a form of child-rearing duties. Moreover, the measure fails to consider how one parents' behavior may constrain the extent to which the other parent contributes to parenting. By excluding this aspect of parenting, the measure fails to account for father's behaviors, as mothers typically engage in gatekeeping behaviors that influence fathers' roles, responsibilities, and contributions. Therefore, this measure should be utilized with caution when applied to mothers and fathers.

Strengths and Limitations

A notable strength of the current study is that is expands upon the current literature by focusing on partner's perceptions of the other's parenting rather than a parent's own perceptions. As such, the use of a self-report provided the ability to account for "cumulative experiences with and feelings toward the other parent," which is more difficult when utilizing observational measures (Holland & McElwain, 2013, p.124). The range in terms of income/socioeconomic status was more diverse compared to other studies, as many studies regarding coparenting often include samples composed of mostly married parents of high socioeconomic status or unmarried (i.e. post-divorce) couples of lower socioeconomic status (Teubert & Pinquart, 2010). Moreover, although the majority of the sample was Caucasian, the sample was more ethnically diverse compared to previous studies (Don et al., 2013; Feinberg et al., 2012; Pinto et al., 2018) focused on coparenting (Table 3). Nonetheless, future studies should continue to focus on more diverse samples to determine whether similar patterns found in the current study apply to a sample with lower socioeconomic status and greater racial and ethnic diversity (Schoppe-Sullivan et al., 2008).

Despite this study's strengths, there are several limitations. Given that the current study's sample was comprised of a more diverse sample, the interpretability of the items and variability

in responses may have impacted results. In fact, more variability in responses likely contributes to less consistent response patterns. Moreover, 32.4 percent of participants received no more than a high school diploma. Therefore, level of educational attainment could result in less readability or difficulty comprehending questions, which influences response patterns. The sample also consisted of families with two parents (i.e., cohabitating couples) that self-selected to participate in the study; thus, constituting a relatively well-functioning community sample. Therefore, the ratings obtained may not generalize to mothers and fathers that are recruited from communities (i.e., non-referred community samples) and are likely only generalizable to two-parent families. Additionally, the majority of participants within this study were also cohabitating or married for several years, thus the specific parental roles between mothers and fathers may become less distinct (Baril et al., 2007). Within long-standing cohabitating relationships, couples share a unique context of interaction (i.e., childcare increases in frequency and saliency; Jamison, 2018; Mernitz, 2019) resulting in social cohesion, whereby coparents develop similar parenting strategies and parental communication due to having an intimate relationship and frequent contact (Roi & Theiss, 2014). When the parental roles become less defined, the ability to identify existing discrepant perceptions becomes difficult. As a result, the ability to derive conclusions about diverse family systems (i.e., different socioeconomic, cultural, or coparenting structures; Holland & McElwain, 2013) was limited. In fact, gender, child's parentage, as well as cultural background, may affect what aspects of parenting are deemed important (Pinto et al., 2018; Schoppe-Sullivan, et al., 2008). Therefore, assessment of coparenting behaviors among more diverse groups is warranted, as research focused on minority's experiences are typically limited.

Another limitation of this study is that it consisted of a other-informant report measure of coparenting and relied on mothers' and fathers' reports of their perspectives of the other

coparent's practices regarding Division of Labor, Coparenting Support, Undermining, Endorsement of Partner's Parenting, and Agreement rather than utilizing observational methodology to assess coparenting behaviors. Future research should implement a multimethod approach to include diverse assessment tools, such as observational methods and open-ended questions allowing parents to describe the coparenting relationship, especially given that the subscales utilized in the current study consisted of only 2 items and often resulted in low to moderate correlations amongst items on several subscales. According to McHale, no single assessment tool can provide sufficient "insight into a family's coparenting structure and dynamics" (as cited in McHale & Lindahl, 2011, p.158). The inadequate fit of the two-factor structure, the item loadings, and lower than expected correlations amongst items on the Division of Labor and Coparenting Agreement subscales, indicates the need for further assessment of coparenting behaviors across mothers and fathers, particularly using the brief Coparenting Measure. Given the current limitations, conclusions drawn from the results of this study should be interpreted with caution and await replication.

Implications and Future Directions

A primary contribution of this study is that it highlights the need to investigate discrepancies between mothers' and fathers' perceptions of their coparenting relationship, as some of the results obtained from the current study contradict those found previously in the coparenting literature. Since Feinberg and colleague's (2003) study, the family structure has evolved and is influenced by cultural, social, and economic changes (Finzi-Dottan & Cohen, 2016). Continued work should focus on whether the Brief Measure of Coparenting is an appropriate measure for mothers *and* fathers and whether the current factor structure of coparenting can be generalized to both parenting roles. More specifically, based on the findings, additional research is needed to examine the item content of the Brief Measure of Coparenting

more closely to determine if these items are in fact representative of the constructs they are meant to measure and consider adding or amending items.

Although the present study offers insight into the different coparenting perspectives between mothers and fathers, there were likely other factors contributing to the obtained results. As previously stated, the current study suggests that the results were likely impacted by common method bias; however, the degree in which the data was impacted by bias and the specific types of bias that influenced the results was unable to be determined. Future studies should anticipate possible bias during the design phase of the study and include additional measures in order to rule-out potential externalizing factors during the analytic phase. Therefore, an improvement of the research would be to incorporate other sources of data and measures to substantiate validity of coparenting perspectives.

Despite the fact that both parents are found to function differently in the coparenting relationship (Margolin et al., 2001), the current study is one of few (i.e., Don et al., 2013, Feinberg et al., 2003) to evaluate cohabitating partners' parenting perceptions across multiple coparenting domains. By understanding which aspects of parenting are perceived as more important to both mothers and fathers, this study begins to highlight what factors could promote or hinder the functioning of the family system, as well as identify points of conflict or cohesion within the home, that could lead to, or mitigate, the probability of conflict and discord.

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Descriptive Statistics for Items of the Brief Measure of Coparenting

<u>Subscale/Items</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>
Endorsement of Partner's Parenting			
1. I believe my coparent is a good parent.	899	5.24	1.10
2. My coparent pays a great deal of attention to our child.	895	5.10	1.28
Division of Labor			
3R. My coparent likes to play with our child and then leave dirty work for me.	899	3.79	1.86
7R. My coparent does not carry his or her fair share of the parenting work	893	4.67	1.65
Agreement			
4. My coparent and I have the same goals for our child.	893	4.97	1.39
5R. My coparent and I have different ideas about how to raise our child.	894	3.85	1.83
Undermining			
6R. My coparent tries to show that she or he is better than me at caring for our child.	893	4.87	1.56
8R. My coparent undermines my parenting.	887	4.75	1.55
Support			
9. My coparent appreciates how hard I work at being a good parent.	893	4.54	1.57
10. My coparent makes me feel like I'm the best possible parent for our child.	892	4.44	1.64

Note. Items 3, 5, 6, 7, and 8 are reverse-coded

Exclusion Criteria Details

Exclusion Criteria	<u>N</u>	Percentage
Initial Sample Size	1813	100.00%
Failure to Complete the measure	842	46.44%
Sexual Orientation	34	1.88%
Non-cohabitating	35	1.93%

Demographic Information

Variable	Frequency (%)				
Race					
Caucasian/White/European American	542 (60.1%)				
African American/Black	314 (34.8%)				
Other	32 (3.5%)				
Asian-American	9 (1.0%)				
Native-American/Alaskan Native	2 (0.2%)				
No report	2 (0.2%)				
Native Hawaiian/Pacific Islander	1 (0.1%)				
Ethnicity					
Hispanic/Latino descent	44 (4.9%)				
Education Level					
Bachelor's degree	187 (20.7%)				
Some college	186 (20.6%)				
Master's degree/Advanced degree	156 (17.3%)				
High school diploma	115 (12.7%)				
GED	81 (9.0%)				
Associate degree	81 (9.0%)				
No degree or diploma earned	54 (6.0%)				
Vocational/technical certification	42 (4.7%)				
Current Income					
Less than \$7,000	80 (8.9%)				
\$7,000 to \$13,999	54 (6.0%)				
\$14,000 to \$24,999	93 (10.3%)				
\$25,000 to \$39,999	144 (16.0%)				
\$40,000 to \$74,999	258(28.6%)				
\$75,000 to \$99,999	132 (14.6%)				
\$100,000 or more	126 (14.0%)				
No answer	15 (1.7%)				
Relationship Status					
Married	730 (80.9%)				
Committed relationship	117 (13.0%)				
Engaged	44 (4.9%)				
Separated	3 (0.3%)				
No answer	8 (0.9%)				
Age of Youngest Child					
0 to 18 months	102 (11.3%)				
19 months to 5 years	227 (25.2%)				

6 years to 10 years	120 (13.3%)
11 years to 18 years	152 (16.9%)
19 years or older	102 (11.3%)

Note. N = 902 ($n_{\text{women}} = 493$, $n_{\text{men}} = 409$), $M_{\text{age}} = 39.01$ (SD = 10.88, age range: 17–90).

Variable	Mean	SD
Relationship		
Number of years living together for non- married participants	4.26	4.01
Number of years participants lived with their current spouse prior to marriage	1.99	2.72
Length of participant's relationship with their current partner (non-married)	6.11	6.13
Length of marriage	12.22	10.44

Parents' Relationship to Child

Variable	Frequency (%)			
Child 1				
Biological	733 (81.3%)			
Stepchild	108 (12.0%)			
Partner's child	15 (1.7%)			
Adopted	23 (2.5%)			
Grandchild	3 (0.3%)			
Other	15 (1.7%)			
Child 2				
Biological	588 (65.2%)			
Stepchild	87 (9.6%)			
Partner's child	7 (0.8%)			
Adopted	12 (1.3%)			
Grandchild	1 (0.1%)			
Other	5 (0.6%)			
Child 3				
Biological	291 (32.3%)			
Stepchild	65 (7.2%)			
Partner's child	5 (0.6%)			
Adopted	9 (1.0%)			
Grandchild	3 (0.3%)			
Foster child	3 (0.3%)			
Other	3 (0.3%)			
Child 4				
Biological	136 (15.1%)			
Stepchild	44 (4.9%)			
Partner's child	4 (0.4%)			
Adopted	3 (0.3%)			
Grandchild	3 (0.3%)			
Foster child	1 (0.1%)			
Other	3 (0.3%)			
Child 5				
Biological	50 (5.5%)			
Stepchild	25 (2.8%)			
Partner's child	1 (0.1%)			
Adopted	6 (0.7%)			
Grandchild	3 (0.3%)			
Foster child	1 (0.1%)			
Other	2 (0.2%)			

Child 6	
Biological	33 (3.7%)
Stepchild	12 (1.3%)
Adopted	3 (0.3%)
Foster child	1 (0.1%)
Other	1 (0.1%)
Child 7	
Biological	17 (1.9%)
Stepchild	5 (0.6%)
Adopted	2 (0.2%)
Grandchild	1 (0.1%)
Foster child	1 (0.1%)
Other	1 (0.1%)
Child 8	
Biological	6 (0.7%)
Stepchild	2 (0.2%)
Adopted	2 (0.2%)
Foster child	1 (0.1%)
Other	1 (0.1%)
Child 9	
Biological	3 (0.3%)
Adopted	2 (0.2%)
Foster child	1 (0.1%)
Other	1 (0.1%)

										Item
	Item1	Item2	Item3R	Item4	Item5R	Item6R	Item7R	Item8R	Item9	10
Item1	1.00									
L 0	0.75**	1.00								
Item2	0.75**	1.00								
Item3R	0.13**	0.07*	1.00							
Item4	0.68**	0.63**	0.04	1.00						
Item5R	0.36**	0.29**	0.27**	0.36**	1.00					
Item6R	0.34**	0.23**	0.32**	0.27*	0.53**	1.00				
Item7R	0.49**	0.54**	0.39**	0.36**	0.44**	0.50**	1.00			
Item8R	0.43**	0.32**	0.33**	0.34**	0.49**	0.67**	0.59**	1.00		
Item9	0.54**	0.50**	0.14**	0.45**	0.36**	0.37**	0.39**	0.43**	1.00	
Item										
10	0.53**	0.47**	0.14**	0.46**	0.39**	0.39**	0.36**	0.42**	0.76**	1.00

Entire Sample Inter-item Correlation Matrix

Note. Endorsement of Partner's Parenting = Items 1 and 2; Division of Labor = Items 3R and 5R;

Agreement = Items 4 and 5R; Undermining = Items 6R and 8R; Support = Items 9 and 10.

**Correlation is significant at the .01 level; two-tailed
Table 7

Model	# items	χ^2 (DF)	RMSEA (90% CI)	CFI	TLI	SRMR
Entire Sample			- /			
All items	10	576.064(35)	0.153 (0.14-0.16)	0.88	0.79	0.05
Items 9 and 10 combined Items 9 and	9	199.186(19)	0.103 (0.90-0.12)	0.95	0.91	0.03
10 combined; item 7R removed	8	34.325 (13)	0.043 (0.03-0.06)	0.99	0.99	0.02
Mothers only						
All items	10	358.632 (26)	0.161(0.15-0.18)	0.87	0.78	0.05
Item 7R removed	9	272.731 (19)	0.165 (0.15-0.18)	0.88	0.78	0.05
Item 5R removed	9	335.515 (19)	0.184 (0.17-0.20)	0.87	0.75	0.05
Items 9 and 10 combined	9	97.960 (19)	0.092 (0.07-0.11)	0.96	0.93	0.03
Item 9 & 10 combined, 7R removed	8	24.210 (13)	0.042 (0.01-0.07)	0.99	0.99	0.02
Fathers only						
All items	10	240.498 (26)	0.142 (0.13-0.16)	0.90	0.82	0.05
Item 9 & 10 Combined	9	102.061 (19)	0.103 (0.08-0.12)	0.96	0.91	0.03
Item 9 removed	9	96.084 (19)	0.10 (0.08-0.12)	0.96	0.92	0.03
Item 10 removed	9	95.329 (19)	0.10 (0.09-0.12)	0.96	0.92	0.03
Item 9 & 10 removed	8	69.077 (13)	0.103 (0.08-0.13)	0.97	0.93	0.03

Model Fit Statistics for Exploratory Factor Analyses

Note. χ^2 = chi-square test statistic; DF = degrees of freedom; RMSEA = Root Mean Square Error of Approximation; CI = confidence interval; CFI = Comparative Fit Index; TLI = Tucker Lewis

Index; SRMR = Standardized Root Mean Square Residual; all chi square values were significant with p < .05.

Item	Entire Sample		Item 9	9/10	Item 9/10; Item 7R removed		
	Factor 1	Factor 2	Factor 1	Factor 2	Factor 1	Factor 2	
1	0.85*	0.05	0.86*	0.05	0.88*	0.02	
2	0.90*	-0.09*	0.91*	-0.09*	0.89*	-0.11*	
3R	-0.04*	0.50*	-0.14*	0.50*	-0.07	0.44*	
4	0.74*	-0.00	0.74*	0.00	0.75*	-0.00	
5R	0.10	0.58*	0.10	0.58*	0.16*	0.55*	
6R	-0.09	0.85*	-0.09*	0.86*	-0.01*	0.85*	
7R	0.29*	0.52*	0.30	0.52*	-	-	
8R	0.03	0.81*	0.03	0.81*	0.13*	0.74*	
9	0.51*	0.26*	-	-	-	-	
10	0.49*	0.27*	-	_	_	-	
9/10	-	-	0.49*	0.27*	0.52*	0.26*	

Entire Sample Geomin Rotated Factor Loadings

* Significant at 5% level

Itom	Entire			Item 5R	Item 5R Item 7R				Item	9 & 10
Item		Samp	le	removed	removed removed		d removed Item 9/10		7R removed	
	Factor	Factor	Factor	Factor	Factor	Factor	Factor	Factor	Factor	Factor
	1	2	1	2	1	2	1	2	1	2
1	0.86*	0.01	0.86*	0.02	0.87*	0.00	0.87*	0.02	0.90*	0.00
2	0.89*	-0.10*	0.89*	-0.09*	0.87*	-0.11*	0.90*	-0.09	0.87*	-0.09
3R	-0.12*	0.45*	-0.12*	0.44*	-0.01	0.42*	-0.12	0.44*	-0.09	0.41*
4	0.71*	-0.01	0.72*	-0.02	0.72*	-0.00	0.72*	-0.00	0.72*	0.01
5R	0.23*	0.44*	-	-	0.25*	0.44*	0.22*	0.45*	0.24*	0.45*
6R	-0.01	0.78*	-0.01	0.76*	-0.01*	0.82*	-0.03	0.78*	-0.01*	0.82*
7R	0.41*	0.42*	0.05	0.87*	-	-	0.41*	0.42*	-	-
8R	0.09	0.83*	0.40*	0.43*	0.16*	0.74*	0.08	0.84*	0.15*	0.76*
9	0.63*	0.14*	0.63*	0.13*	0.63*	0.14*	-	-	-	-
10	0.63*	0.15*	0.64*	0.13*	0.64*	0.17*	-	-	-	-
9/10	-	-	-	-	-	-	0.56*	0.20*	0.57*	0.21*
* 0:: 6		1/ 11								

Mothers Geomin Rotated Factor Loadings

* Significant at 5% level

			Item3		Item5	Item6	Item7	Item8		Item
	Item1	Item2	R	Item4	R	R	R	R	Item9	10
Item1	1.00									
Item2	0.74**	1.00								
Item3 R	0.13**	0.07	1.00							
Item4	0.66**	0.59**	0.04	1.00						
Item5 R	0.41**	0.34**	0.23**	0.42**	1.00					
Item6 R	0.37**	0.29**	0.27**	0.31**	0.46**	1.00				
Item7 R	0.55**	0.60**	0.31**	0.38**	0.41**	0.46**	1.00			
Item8 R	0.50**	0.41**	0.30**	0.40**	0.49**	0.696* *	0.62**	1.00		
Item9	0.55**	0.55**	0.13**	0.44**	0.37**	0.38**	0.47**	0.45**	1.00	
Item 10	0.59**	0.53**	0.13**	0.47**	0.42**	0.42**	0.43**	0.45**	0.80**	1.00

Mothers Inter-item Correlation Matrix

Note. Endorsement of Partner's Parenting = Items 1 and 2; Division of Labor = Items 3R and 5R; Agreement = Items 4 and 5R; Undermining = Items 6R and 8R; Support = Items 9 and 10. **Correlation is significant at the .01 level; two-tailed

Itom	Item Entire Sample		Itom $0/10$		Item 9		Item 10		Item 9 & 10	
nem	Entire	Sample	Itelli 9/	10111 9/10		oved	removed		removed	
	Factor	Factor	Factor	Factor	Factor	Factor	Factor	Factor	Factor	Factor
	1	2	1	2	1	2	1	2	1	2
1	0.85*	0.07	0.85*	0.07	0.85*	0.07	0.85*	0.07	0.84*	0.08
2	0.90*	-0.10*	0.91*	-0.06	0.92*	-0.06	0.91*	-0.06	0.93*	-0.06
3R	-0.19*	0.60*	-0.18	0.61	-0.18	0.61*	-0.18	0.61*	-0.18*	0.61*
4	0.78*	0.00	0.78*	0.00	0.78*	0.00	0.78*	0.00	0.77*	0.01
5R	0.01*	0.68*	0.01	0.68*	0.09	0.68*	0.01	0.68*	0.01	0.68*
6R	-0.08	0.89*	-0.07	0.89	-0.07	0.89*	-0.07	0.89*	-0.07	0.88*
7R	0.12*	0.69*	0.13*	0.69*	0.14	0.69*	0.13*	0.70*	0.15*	0.70*
8R	0.02	0.77*	0.02	0.77*	0.02	0.77*	0.02	0.77*	0.02	0.76*
9	0.47*	0.28*	-	-	-	-	0.45*	0.26*	-	-
10	0.40*	0.29*	-	-	0.38*	0.28*	-	-	-	-
9/10			0.45*	0.29*	-	-	-	-	-	-
* 0		11								

Fathers Geomin Rotated Factor Loadings

* Significant at 5% level

			Item3		Item5	Item6	Item7	Item8		
	Item1	Item2	R	Item4	R	R	R	R	Item9	Item10
Item1	1.00									
Item2	0.78**	1.00								
Item3 R	0.13**	0.04	1.00							
Item4	0.69**	0.69**	0.03	1.00						
Item5										
R	0.30**	0.23**	0.35**	0.29**	1.00					
Item6										
R	0.32**	0.21**	0.42**	0.24**	0.61**	1.00				
Item7										
R	0.40**	0.42**	0.49**	0.32**	0.50**	0.62**	1.00			
Item8										
R	0.37**	0.25**	0.39**	0.28**	0.50**	0.66**	0.60**	1.00		
Item9	0.53**	0.47**	0.14**	0.46**	0.35**	0.38**	0.29**	0.42**	1.00	
Item10	0.46**	0.41**	0.15**	0.44**	0.35**	0.38**	0.27**	0.39**	0.70**	1.00

Fathers Inter-item Correlation Matrix

Note. Endorsement of Partner's Parenting = Items 1 and 2; Division of Labor = Items 3R and 5R;

Agreement = Items 4 and 5R; Undermining = Items 6R and 8R; Support = Items 9 and 10.

**Correlation is significant at the .01 level; two-tailed

						Partial Eta
Variable	Value	F	W	df	р	Squared
Support	1.18	0.57	0.58	1	0.451	0.001
Division of						
Labor	57.08	29.17	29.58	1	p<.001	0.033
Undermini						
ng	12.24	6.83	6.72	1	0.01	0.007
Endorseme						
nt of						
Partner's						
Parenting	6.72	9.2	9.34	1	0.002	0.01
Agreement	0.15	0.09	0.09	1	0.769	0.00
Parenting Agreement	6.72 0.15	9.2 0.09	9.34 0.09	1	0.002 0.769	0.01 0.00

One-Way ANOVAs of Coparenting Dimensions

^{*a*} F = ANOVA F test. ^bW= Welch

Descriptive Statistics for Items of the Brief Measure of Coparenting

Positively Worded Items	<u>N</u>	<u>Mean</u>	<u>SD</u>
1. I believe my coparent is a good parent.	882	5.25	1.096
2. My coparent pays a great deal of attention to our child.	879	5.1	1.273
4. My coparent and I have the same goals for our child.	877	4.99	1.36
9. My coparent appreciates how hard I work at being a good parent.	876	4.58	1.507
10. My coparent makes me feel like I'm the best possible parent for			
our child.	875	4.49	1.576
Negatively Worded Items	\underline{N}	<u>Mean</u>	<u>SD</u>
3. My coparent likes to play with our child and then leave dirty work			
for me.	882	2.2	1.828
5. My coparent and I have different ideas about how to raise our			
child.	877	2.09	1.79
7. My coparent does not carry his or her fair share of the parenting			
work	876	1.29	1.602
6. My coparent tries to show that she or he is better than me at			
caring for our child.	876	1.09	1.493
8. My coparent undermines my parenting.	871	1.23	1.499

Note. No items were reverse coded

Appendix A

The Brief Measure of Coparenting Relationship Scale

0	1	2	3	4	5	6
Not at all	Not True	A Little	Neutral	Somewhat	True of	Very True
True of us	of us	True of us		True of us	us	of us

- 1. I believe my coparent is a good parent.
- 2. My coparent pays a great deal of attention to our child.
- My coparent likes to play with our child and then leave dirty work for me. (Reverse Score)
- 4. My coparent and I have the same goals for our child.
- 5. My coparent and I have different ideas about how to raise our child. (Reverse Score)
- 6. My coparent tries to show that she or he is better than me at caring for our child.

(Reverse Score)

- 7. My coparent does not carry his or her fair share of the parenting work. (Reverse Score)
- 8. My coparent undermines my parenting. (Reverse Score)
- 9. My coparent appreciates how hard I work at being a good parent.
- 10. My coparent makes me feel like I'm the best possible parent for our child.

Appendix B

Proposed factor analytic structure



Appendix C

Figure C1

Scree Plot for Entire Sample



Figure C2

Scree Plot for Mothers



Figure C3





Appendix D

Figure D1

Analysis Flow-chart for Entire Sample EFA



Figure D2

Analysis Flow-chart for Mother's EFA



Figure D3

Analysis Flow-chart for Father's EFA

