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#### Abstract

The purpose of this research was to examine the mechanisms determining coparenting processes in parents following divorce or separation and the implications for the emotional and behavioral outcomes for their young children. The complex associations between parental anxiety, parental self-efficacy, social support, coparent relationship quality, and child problem behaviors were examined. Participants were recruited using Amazon Mechanical Turk and completed a survey regarding their coparenting dynamics. The sample consisted of 322 residents of the United States who had a child between 18 months and 5 years of age and who were no longer living with the child's other parent. Results from this study identified distinct factors derived from the measure of coparenting quality, called coparenting quality interpersonal and coparenting quality instrumental. Coparenting quality instrumental reflected observable, instrumental coparenting behaviors, while coparenting quality interpersonal reflected emotional and interpersonal motivators of coparenting behavior. The results indicated that parents who reported higher levels of self-efficacy also reported higher levels of coparenting quality instrumental, but not interpersonal. The results also indicated that the instrumental factor of coparenting quality mediated the relationship between self-efficacy and child problem behavior while the interpersonal factor of coparenting quality did not mediate that relationship. The results of this research have important implications for future research into the mechanisms linking parenting beliefs, coparental behavior, and the emotional and behavioral outcomes of children of divorced or separated parents.

# Coparenting Quality in Separated American Parents of Children Ages 1½ to 5: Anxiety, Social Support, Self-Efficacy, and the Associations with Coparenting and Child Outcomes

by

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Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of

Doctor of Philosophy

in Human Development and Family Science

Syracuse University

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Coparenting Quality in Separated American Parents of Children Ages 1½ to 5:

Anxiety, Social Support, Self-Efficacy, and Child Outcomes

#### Introduction

Separation and divorce are common occurrences among families in the United States, with a divorce rate of 2.9 per 1000 in 2018 (Schramm & Becher, 2020). Further, more than 50% of children under age 9 who were born within a cohabitating union in 2020 experienced a parental breakup, while one-in-five children born in wedlock experience a parental breakup by the age of nine (Livingston, 2020). Parental divorce and separation have been associated with increased risk for emotional and behavioral outcomes for young children (Lamela et al., 2016; Nielsen, 2018) with highly variable outcomes based on the features of the divorce. The complex web of direct and indirect effects of both pre- and post-separation coparenting dynamics have begun to reveal processes of risk and resiliency for children (see McHale & Lindahl, 2011). Because children whose parents reside separately may be more likely to develop emotional, behavioral, social, and academic difficulties (Amato, 2001; Amato & Keith, 1991; Hetherington, Bridges, & Insabella, 1998), it is important to understand the factors that protect children and parents from adverse outcomes following separation. The quality of the post-separation coparenting relationship has been shown to be an important determinant of the well-being of children and former partners (McHale & Lindahl, 2011). Given its significance, it is important to study further the complex set interpersonal and intrapersonal determinants of the coparenting relationships and how coparenting might explain the linkage between parental characteristics and child outcomes.

#### Factors of Risk and Resiliency in Children of Divorce

There is a wide degree of variability in the outcomes of children whose parents separate or divorce (herein referred to as separation). While some children of parental separation do experience negative emotional, behavioral, social, or academic reactions, many children do well, or even better, after separation (Amato, 2014; Amato & Keith, 1991; Kelly, 2012). For example, it has been found that most children of divorced parents performed in the average range of emotional and behavioral adjustment (Amato, 1994), and that those children who perceive divorce to result in less anxious family interactions and more authoritative parenting behaviors experience better developmental outcomes than children of high-conflict intact families (Hetherington & Stanley-Hagan, 1999). It has also been shown that when post-divorce parents are supportive of one another and collaborative around parenting responsibilities, the negative impact of parental separation can be attenuated (Teubert and Pinquart, 2010), and that clear, honest, kind, and direct communication between family members of divorced parents can mitigate factors that risk adverse outcomes on children (Herrero, Martínez-Pampliega, & Alvarez, 2020). There is also evidence that characteristics of the coparental relationship can protect children from the negative effects of parental separation. For example, Talbot and McHale (2004) found that when fathers displayed higher levels of flexibility and less reactivity in the context of low coparental solidarity, conflict between the parents tended to decrease.

There remains a need, however, to understand the factors and mechanisms that help explain why some children adapt to the challenges of parental separation (e.g., Brand et al., 2019), while others develop emotional and behavioral symptoms, such as depression, anxiety, conduct problem, (e.g., Amato, 2001; Amato & Cheadle, 2008; Averdijk et al., 2012; Hetherington & Stanley-Hagan, 1999), suicidality and substance abuse (Amato & Keith, 1991;

Aro & Palosaari, 1992; Auersperg et al., 2019), poorer relationships with parents (Fosco & Grych, 2010), and academic difficulties (Amato, 2001; Hetherington & Stanley-Hagan, 1999). Parental separation may affect children directly or indirectly through several mechanisms, including changes in parental financial status, high parental conflict, ethnic or cultural stressors, and contentious coparental legal processes. For example, Auersperg et al. (2019) suggested that insecure attachment, which has been associated with anxiety and depression in children and adults (Bowlby, 1969), as well as substance abuse (Gidhagen et al., 2018), both underly the process leading to post-divorce distress. The authors also proposed neuropsychological trauma as a potential pathway from parental divorce to childhood emotional and behavioral difficulties, suggesting that chronic activation of the sympathetic nervous system, a natural physiological reaction to chronic stress, can lead to symptoms of depression, anxiety, and substance abuse. In addition, using the parental absence perspective, Auersperg et al. (2019) asserted that children who lose access to a parent suffer the loss of a role model, a primary source of emotional support, practical help with daily living, and overall parental supervision, which have all been shown to be associated with the above difficulties. Meanwhile, Amato and Keith (1991) cited family conflict and socioeconomic stressors as mechanisms through which children may develop adverse emotional, behavioral, academic, and social reactions. Amato and Keith (1991) also found strong support for the family conflict perspective, which provides a framework for understanding how high levels of parental conflict in intact families may have a more detrimental impact on child well-being compared to children whose parents are divorced and living separately and who are experiencing less chronic, daily parental conflict.

#### Socioeconomic Status, Divorce, and Child Outcomes

Post-divorce economic disadvantage can create a barrier to academic and social opportunities, which can lead to depression, anxiety, and other emotional and behavioral disturbance that persist into adulthood (Auersperg et al., 2019). Children from low-income families may have decreased access to mental health care (Cowan et al., 2007), possibly explaining why low-income children of divorce or separation are at higher risk of adverse emotional and behavioral outcomes. The challenges of economic stress can also interact with race. For example, with the concurrent lack of employment opportunities, fewer childcare resources, fewer health services, and ongoing racial discrimination, the children of single, African American mothers may experience increased risk for adverse developmental outcomes following parental separation.

#### Gender, Sexual Orientation, and Coparenting

Despite an increasing number of children under the age of 18 living with same-sex parents (Cao et al., 2016), most of the research and literature on coparenting dynamics is focused on heterosexual couples (Sumontha et al., 2016). This is important given evidence supporting distinct pathways linking coparenting dynamics and child and family outcomes in same-sex couples, compared to heterosexual couples. For example, Sumontha et al. (2016) present evidence that compared to heterosexual coparents, social support may play a more integral role in the emotional well-being of sexual minority parents due to protective effects against the stigma, prejudice, and discrimination that continues to be associated with same-sex parenting and coupling, while helping to offset heteronormative assumptions of family and parenthood (Berkowitz & Marsiglio, 2007; Goldberg & Smith, 2011). Same-sex parents have also been shown to display increased coparental support and fewer coparental undermining behaviors

compared to heterosexual couples (Farr & Patterson, 2013), while displaying less negativity, less belligerence, fewer control and power tactics, and more positive emotions such as humor (Gottman, 2003). In addition to the differential impact of social support and conflict style between heterosexual and same-sex couples, the division of labor, which has been shown to be a contributor to coparental quality (Feinberg, 2003), has been shown to have distinct dynamics for same-sex couples. For example, there is evidence that compared to heterosexual couples, same-sex couples share parenting and household labor more equally (Goldberg et al., 2012; Kurdek, 2007; Patterson et al., 2004). While the current study focuses on coparenting dynamics in heterosexual couples, it is acknowledged that coparenting dynamics are influenced by the diversity of coparental genders in American families.

#### High-Conflict Divorce

While many post-divorce couples develop healthy and cooperative coparenting relationships, approximately 15% of couples remain, or become, highly contentious following the decision to terminate their marriage or intimate relationship (Polak & Saini, 2018). High-conflict post-divorce couples are more likely to display anger and hostility, to pass blame for problematic child outcomes, to have irregular parent-child contact and diffuse parent-child boundaries, and to be rigid in parenting behaviors; they are more likely to use illicit substances in front of the children, to be irregular or neglectful around child support obligations, to engage in arguments in front of the children, to undermine each other's parenting authority or attempt to erode the other parent's relationship with the children (Polak & Saini, 2018), and to engage in high rates of litigation and re-litigation (Goodman et al., 2004). In addition to finding that parents of high-conflict divorce showed lower life-satisfaction, higher divorce-related distress, and more inconsistent parenting, Lamela et al. (2016) identified predictors of high-conflict divorce that

included parental personality and mental health problems, substance abuse, adverse coparenting dynamics, domestic violence, financial difficulties, race and ethnicity discrimination, and dissatisfaction with parenting and custody arrangements.

Parental Interpersonal Characteristics and High-Conflict Divorce. Although married mothers have been found to have fewer mental health difficulties than single or post-divorce mothers (Afifi et al., 2006), much of the empirical focus has been on the impact of marital status on mental health, rather than on the impact of mental health on post-divorce coparenting conflict. However, in the field of family intervention, the relationship between mental health and postseparation coparenting conflict is significant. Isacco et al. (2010) found that for non-married fathers, higher depression and anxiety were related to perceptions of lower coparental support. Afifi et al. (2006) found that fathers with more mental health difficulties have less healthy coparenting relationships. Further, the presence of personality traits, such as narcissism, entrenched hatred, borderline personality disorder, paranoid personality, and antisocial personality are often associated with high-conflict divorce (Polak and Saini, 2018). Relatedly, individuals with certain mental health difficulties tend to have trouble maintaining supportive social relationships, difficulties regulating their emotions, and difficulties maintaining amicable relationships with coparents (Mojtabai et al., 2017). While mental health difficulties are often present prior to the marital or relationship dissolution, the stress of relationship breakdown and family separation can worsen mental health symptoms, further increasing the potential for highconflict divorce or coparenting.

**Satisfaction with Divorce Agreement and High-Conflict Divorce.** Given the sense of security often provided by financial stability, joint financial obligations following divorce or separation can impose an ongoing emotional connection between coparents. For example,

Bonach (2005) found an association between higher perceived control of divorce outcomes and higher satisfaction with post-divorce financial support, as well as higher spousal instrumental and emotional support and decreased coparental conflict. Polak and Saini (2018) noted that disagreement around issues such as child support, spousal support, and division of property, can contribute to post-separation high-conflict relationships. There is also evidence that joint custody arrangements are related to less coparental hostility than sole custody arrangements (Arditti & Madden-Derdich, 1997; Bay & Braver, 1999; Madden-Derdich & Arditti, 1999). Emery (2012) noted that a lack of control over custody decisions and financial support can increase a sense of low self-efficacy.

Gender and Sociopolitical Equality in High-Conflict Divorce. The impact of divorce on children in the United States is multifaceted, often indirect, and influenced by social, cultural, personal, and interpersonal factors. Among these factors are the policies that drive the judicial decision-making process in divorce proceedings. As state-level no-fault divorce laws began to be enacted across the United States in the 1960s, it became easier to dissolve a marriage without the need to prove the wrongdoing of a spouse or to prove spousal incompatibility; and men have become more likely to file for divorce following the enactment of no-fault divorce laws (Buehler & Gerard, 1995). While the ability to leave a marriage as one saw fit may have contributed to a decreased spousal violence, increased labor force participation by women, and decreased financial dependence on men (Yodanis, 2005), gender differences in the consequences of divorce remain salient throughout the United States. For example, Leopold (2018) noted that, compared to men, women experience a disproportionate post-divorce decline in household income, decreased standard of living, increased poverty, higher risk of losing home ownership, lower

chances of repartnering, and increased responsibilities as a single parent that further impact their economic recovery.

Gender differences in the consequences of divorce can become even more salient when issues related to child custody and child support come into play. While there have been efforts at national standardization of the decision-making process for child custody and parenting time in the United States, divorce laws continue to vary by state. For example, there have been interstate discrepancies in allocation of shared parenting time, even when legal shared custody has been established. Many of these state-level efforts to enact equal shared parenting time cite gender-neutral policies that ensure equal division for each parent while focusing on the best interests of the child (Kelly, 2007). However, Buehler and Gerard (1995) and Meyer et al. (2017) have argued that despite language suggesting gender neutrality in the child custody decision making process, and even despite changes in state-level decision-making processes (such as no-fault divorce), women continue to experience more adverse economic impacts than men following divorce, including unemployment and underemployment, poverty, and inadequate childcare.

#### Legal System Process

Due to the financial, contractual, and legal complexities of divorce in the United States, divorcing individuals often seek their own legal representation to navigate the divorce process. As discussed by Polak and Saini (2018) involving two separate divorce attorneys can contribute to an adversarial process that encourages positional and dichotomous thinking that capitalizes on parental deficiencies and undermines efforts to develop cooperative and healthy coparenting dynamics. The authors cited further evidence supporting the relationship between less adversarial legal proceedings and heathier coparenting dynamics. They further argue that high-conflict post-

divorce relationships and adversarial divorce proceedings may be a sign of unresolved relationship distress from prior to the divorce and that the legal system in the United States is neither tasked nor prepared to address these emotional dynamics.

In addition to the challenges of legal system engagement, high-conflict post-divorce couples are commonly involved in the social service system due to above-average allegations of child maltreatment (Polak & Saini, 2018). While it is imperative that substantiated accusations be investigated and risk be mitigated, it is common for such allegations to be used as legal leverage to manipulate contractual parenting time and child support obligations and to undermine coparental authority. In addition to fueling coparental hostility, the process of child abuse investigations involves child interviews, which can place children in a triangulated position of choosing sides while having to endure what can be an emotionally challenging investigation process.

#### Coparenting Quality

Since the early theoretical applications of general system theory in the family therapy field (Bateson, 1956; Belsky et al., 1996; Bowen, 1966, 1971; Haley, 1963; Minuchin, 1971; Satir, 1983; Weakland, 1956) theorists and researchers have agreed that it is less the divorce and more the nature and quality of parental interactions, such as covert and overt parenting practices, that contribute to individual differences in the effects of divorce on children (Amato & Keith, 1991; Lansford, 2009; Maccoby et al., 1990). Emery (1982) and Grych and Fincham (1990) were among the first to discuss the idea that covert and overt marital and intimate-partner conflict might influence child outcomes through the mediating effect of coparenting practices. The work of Emery (1982) was important because he presented empirical support for the idea that it was interparental conflict, not the family separation directly, that affected adverse child outcomes,

noting that parental conflict does not end when the marriage ends. He offered several process models for future exploration, including parental modeling and child imitation of maladaptive emotional and behavioral reactivity, detrimental and inconsistent disciplinary practices induced by marital turmoil, and the dynamic impact of complex variables, including parental psychopathology and child gender. Similarly, Grych and Fincham (1990) offered a cognitive-contextual framework that informed children's responses to marital conflict through the children's understanding of the content, intensity, duration, and resolution of the conflict and through a consideration of contextual variables, including the child's experience with conflict, child temperament, and child gender. The work of Grych and Fincham (1990) and Emery (1982) was also important because it framed child emotionality due to parental conflict in the context of child cognitions, which are formed through a complex interplay between contextual variables and various qualities of marital conflict.

As the efforts of early parenting theorists and researchers began to bridge the work of family system theorists, practitioners, and researchers, the foundations were laid on which parenting, family process, and child outcome could be understood within a complex system of domain-specific, context-dependent, and multi-level mediating and moderating influences. This early research also gave rise to the distinction between the past intimate-partner relationship and the coparenting relationship (Belsky, 1979, 1981; Brody et al., 1986; Cowan & McHale, 1996; Easterbrooks & Emde, 1988; Emery, 1982; Floyd & Zmich, 1991; McHale, 1995). This distinction is important because it continues to frame an essential shift in theory and research on child outcomes from the effects of dyadic, parent-child relationship quality to the effect of processes underlying the triadic relationship between the two coparents and each individual child. For example, early coparenting researchers observed that there were differences in parent

behavior during triadic parent-parent-child interaction versus dyadic parent-child interaction, including the degree to which parents engage with the children, efforts to triangulate children, and efforts to undermine coparental authority (e.g., Buhrmester et al., 1992; McHale & Rasmussen, 1998; McHale et al., 2000). Gjerde (1986) found that the quality of mother-daughter relationships changed while in the presence of the father while suggesting that when fathers are present the mother can focus less on utilitarian discipline and more on behaviors that improve the quality of the relationship. Le et al. (2017) found that parenting stress affected the quality of parenting behaviors and that an individual's parenting stress is influenced by both their own and their partner's negative affect.

Further supporting the premise that whole family dynamics are essential in the understanding of child emotional and behavioral development, Umemura et al. (2015) found that undermining and competitive coparenting behavior affected child outcomes even after controlling for individual parenting quality. Undermining coparenting behaviors included coparental hostility, arguing in front the children, critical expressions of disapproval of parenting approaches by the other parent, competition for establishment of rules, and jockeying for attention (Umemura et al., 2015). As researchers began to understand post-divorce coparenting as a domain distinct from the spousal relationship in its functional impact on children and parents, it became clearer that divorce may impact adverse child outcomes indirectly through post-divorce factors, such as parental absence, financial difficulties, and interparental conflict and cooperation (see Feinberg, 2003), especially when interparental conflict was child focused (Grych & Fincham, 1990).

Coparenting is accepted to refer to the part of the post-divorce parenting relationship that is related to childrearing wherein a distinction is made between the ex-spousal relationship and

the parenting relationship. As a well-researched conceptual and empirical term, coparenting refers to the efforts of two or more individuals to provide the care and upbringing of children for whom they share responsibility (McHale & Lindahl, 2011). Coparenting has since been shown to be a critical factor in determining children's adjustment and is predicted by individual dimensions of the parents and their relationship, as well as the experience of the divorce itself. The coparenting concept has captured and operationalized the view that the parent-parent-child triad is a distinct and measurable unit that impacts child outcomes distinct from parent-child dyad, while allowing for an understanding of the impact of multiple subsystems with the family, including the child and marital relationship, the mother's parenting role, and the father's parenting role (Majdandzic et al., 2012).

Inherent in the definition of coparenting is the idea that children are raised in the context of family systems in which multiple parenting figures simultaneously raise and care for children, regardless of relationships status (McHale & Irace, 2011; McHale & Lindahl, 2011).

Coparenting dynamics are influenced by cognitive vestiges of the intimate and emotional relationship with the now-coparent; by the beliefs, values, and expectations formed throughout the parents' own upbringings; and by the current social, political, and socioeconomic ecology in which the parents live today (Feinberg, 2003). Despite the development of associative and causal relationships and complex theoretical frameworks (e.g., Feinberg, 2003), there remains a need to study diverse family structures, including high-conflict post-divorce coparenting (van der Wal et al., 2019), to further explore the processes leading from parental separation to adverse child outcomes. Using Feinberg's conceptual model (2003) this study will examine the relationship between parental anxiety, social support, coparenting behaviors, social stressors, and behavioral and emotional outcome of children from 18 months to 5 years of age.

The early childhood years are an important period in the development of coparenting behaviors (Riina & McHale, 2012) because it is when children are beginning to develop the ability to regulate their behavior (Murphy et al., 2017), when coparenting and family parenting patterns begin to crystallize, and when children's bids for autonomy place increased demands on coparents to implement consistent disciplinary structures (McHale et al., 2000). Umemura et al. (2015) noted that children in this age range are becoming more socially aware and that by age two children may be cognizant of the degree to which parents are united in their efforts to coparent or are sending the child conflicting messages. This early childhood period is also a time when marital satisfaction tends to decrease and marital conflict increases (Schoppe-Sullivan et al., 2004), making it important to understand the processes underlying these dynamics which might help inform intervention strategies. Petren et al. (2017) also noted that early coparenting dynamics lay the groundwork for longitudinal coparenting patterns and post-divorce adjustment. The quality of coparenting dynamics during the first five years of children's lives may serve as protective or risk factors, setting the stage for adaptive or maladaptive emotional and behavioral development for children of divorce or separation throughout childhood and into adulthood.

Coparenting Dimensions. With the growing empirical focus on coparenting dynamics came efforts to identify and better understand the dimensions of coparenting most associated with child outcomes. However, differing conceptualizations of dimensions have aggravated attempts to specify coparenting processes. For example, Maccoby et al. (1990) found support for two coparenting dimensions called discord, which they defined as frequent arguing and sabotaging behaviors, much like the undermining dimension proposed by Feinberg (2013), and cooperative communication, which they defined as childrearing agreement and positive communication about the children. McHale (1995) differentiated harmonious coparenting

(capturing interparental cooperation and family warmth) from hostile-competitive coparenting (capturing interparental competition, verbal sparring, and child centeredness), and later suggested that the most common conceptual features of the coparenting dimension are solidarity and support between coparents, coparental antagonism, and coparental engagement in child-related activities (McHale et al., 2004). McHale's work is important because it elucidated the importance of whole-family and domain specific process when he found a relationship between marital conflict and hostile-competitive coparenting behavior and covert efforts to maintain power and control dynamics in family, spousal, and coparental relationships. However, the distinction between support and undermining has remained unclear, with researchers uncertain as to whether the two concepts fall at two ends of the same continuum or are two independent but interrelated constructs (Feinberg, 2003).

Meanwhile, Margolin (2001) proposed cooperation, conflict, and triangulation to be three dimensions of coparenting behavior, while Feinberg (2003) proposed a model delineating four interrelated dimensions of coparenting, capturing agreement/disagreement in child rearing issues, division of labor around child rearing issues, supportive and undermining coparenting behaviors, and the joint management of family responsibilities. Amato et al. (2011) proposed cooperative coparenting (capturing high contact between separated parents, high satisfaction with the other parent, low interference from the other parent in coparenting efforts, moderate conflict, and positive child-nonresidential parent contact), parallel coparenting (capturing moderate contact between nonresidential parent and child, low interference but low support in coparenting), and single parenting (capturing low involvement of nonresidential parent).

Lamela et al. (2016) later proposed a three-dimensional model focusing on high-conflict coparenting (capturing low coparenting agreement and support, unequal division of childcare

labor, and high levels of covert and overt parenting conflict), undermining coparenting (capturing low agreement and support, unequal division of childcare labor, and high levels of coparenting undermining), and cooperative coparenting (like Feinberg's conceptualization).

Lamela et al. (2016) suggested that while their undermining coparenting dimension is like the parallel undermining dimension proposed by Amato et al. (2011), their construct is distinct because it accounts for high levels of covert undermining behavior, including disparaging one parent in front of the children in the absence of the other parent, sabotaging the other coparent's parental authority, and discouraging the relationship between the children and the other parent.

Feinberg's Ecological Framework. Feinberg's (2003) offers a commonly accepted ecological framework for both research and intervention in the field of coparenting, enabling a conceptual distinction between covert and overt coparenting styles as well as an understanding of the impact of coparenting behaviors from between and within coparenting domains. Feinberg's model also supports the role of coparenting as a mediating and moderating variable linking contextual factors and child outcomes. The model is comprised of four primary components of the coparenting process, including support and undermining, division of labor, childrearing agreement, and joint family management. The support and undermining component captures the ways in which coparents validate and support each other's parenting practices, including hostilecompetitive behaviors, or the degree to which parents sabotage the other's parenting practices, as well as their degrees of hostility, criticism, disparagement, and blame. The model includes division of labor, capturing how well coparents share and coordinate parenting duties; childrearing agreement, capturing the degree to which coparents negotiate parenting approaches and discipline; and joint family management, capturing how well parents set boundaries between subsystems in the family, such as between parental subsystems and child subsystems. Feinberg's

model has received substantial attention and support in the empirical literature (e.g., Jones et al., 2002; Lamela et al., 2016; Umemura et al., 2015). For example, Lamela et al. (2016) found that high-conflict coparenting was associated with lower parental satisfaction with life, higher divorce-related distress, and inconsistent parenting behaviors, while Umemura et al. (2015) found that a competitive domain of coparenting was associated with psychological difficulties in children.

Attempting to find consistency in the conflicting and overlapping coparenting frameworks, Teubert and Pinquart (2010) found metanalytic support for four distinct themes of coparenting dimensions, including coparental cooperation, agreement on childrearing philosophies and behaviors, coparental conflict (overt behaviors), and coparental triangulation of children (covert behaviors). The authors noted their findings are like those of Feinberg (2013) with the exception that they view support and undermining as two independent dimensions. These themes are also consistent with early efforts by McHale (1995; 1997) and McHale and Rasmussen (1998) in the operationalization of the early family theoretical concepts of hostile-competitive and triangulating parenting behaviors.

Given the complexities in coparenting frameworks, it is important to pursue empirical tests to discern and affirm dimensions of the coparenting construct, as well as the distinct predictors and outcomes of those dimensions. For example, McHale (2004) notes that coparenting-related beliefs, constructions, and working models of the coparent and coparenting relationship are likely to play an important role in interparental dynamics, though these latent constructs have remained under-explored in research on domains of the coparenting construct, in favor of observable coparenting interactions, such as triangulation and conflict. In the context of

divorce or separation, when discrepancies in parental values and beliefs may be salient, the mechanisms underlying both latent and manifest constructs may be if particular importance.

#### **Significance of Coparenting**

As noted by Lamela et al. (2016) not all efforts to discern coparenting dimensions, especially in families of separation or divorce, have sufficiently accounted for the distinction between covert and overt conflict processes. For example, while Pruett et al. (2003) found that post-separation parental conflict was indirectly related to child adjustment, and Sobolewski and King (2005) found that conflict over childrearing was unrelated to nonresidential father involvement, in neither study did the authors decompose interparental conflict into covert and overt dimensions. Overt coparenting processes include parental conflict that can be directly observed by the children while covert process include guilt induction, undermining, and psychological control. The absence of the distinction between covert and overt processes is especially striking given efforts by McHale (1997) to provide a means to measure covert and overt dimensions of interparental conflict, as well as recommendations by Buehler et al. (1997) who, following a meta-analysis exploring the impact of interparental conflict on child problem behaviors, implored researchers to explore covert and overt dimensions of interparental conflict. There remains a need in the study of post-divorce coparenting dynamics to discern the impact of subdomains of covert and overt coparenting conflict on parenting behavior and child outcomes (Lamela et al., 2016).

#### Covert and Overt Coparenting Processes

Overt parenting conflict refers to hostility between parents, including belligerence, contempt, derision, screaming, and physical abuse (Buehler et al., 1994; McHale, 1997). Covert parenting behaviors are comprised of hostile behaviors and emotions that can reflect indirect

manifestations of interparental conflict, such as triangulating children; this includes undermining coparenting such as allying with or scapegoating the child, asking the child for age- or role-inappropriate information about the other parent, having the child carry age- or role-inappropriate messages to the other parent, and denigrating the other parent in front of the child (Buehler et al., 1997; Buehler et al., 1998; Li, Putallaz, & Su, 2011; McHale, 1997), as well as global covert behaviors, such as withdrawing love or affection, resentment, upsettedness, or unspoken manifestations of tension between parents in subtle and indirect ways.

The emotional-security hypothesis (Davies & Cummings, 1994) helps to explain a child's reaction to overt and covert marital conflict not as a direct effect of anger and conflict but rising from the implications of marital conflict on their emotional security. Marital conflict can impose threats to the emotional or physical well-being of children through the breakdown of parental disciplinary practices, reduced parental availability and sensitivity, and emotional triangulation dynamics in which children own blame for marital conflict. For example, when parents speak disparagingly of their partner in front of the children, the child's confidence in the family executive system as a unified front becomes diminished, thereby challenging their sense of emotional and physical security. Acknowledging the subtlety and complexity of these coparenting and marital dynamics, researchers began to conceptualize and explore the factors that influence the quality of coparenting dynamics and their effects on child outcomes and to pursue a better understanding of the ways in which subtle and not-so-subtle interactions between each parent and child can influence the quality of coparenting dynamics. For example, in the early years of coparenting research, Buehler et al. (1994) observed the importance of exploring the distinction between interparental conflict and styles of conflict management. The authors noted that the four interparental conflict management strategies that were prominent in the

parenting literature to that date were overt hostile strategies (verbal and physical conflict), covert hostile strategies, cooperative strategies, and avoidant strategies. The authors implored future research efforts to examine the effects of these distinct dimensions of parenting behavior on child outcomes.

In line with the call to action from Buehler et al. (1994), McHale (1995), found that some maritally distressed parents were more likely to display subtle exhibitions of marital aggression by disassembling or rearranging play objects built by their partners or to make veiled remarks to the baby about intrusive or ill-time interventions by the other parent. Such interactions were captured in a family variable that the author called hostile-competitiveness (capturing parentcenteredness and negativistic one-upmanship), and which represented covert coparenting behaviors. The author found two additional variables, family harmony (capturing warmth and supportiveness among family members) and parenting discrepancy (capturing lack of engagement or investment in child play interactions) that were associated with subtle, covert displays of marital distress. The study by McHale (1995) is important because it encouraged researchers to further explore the subtle ways in which marital dynamics might "spillover" into coparenting dynamics through both covert and overt processes, indirectly affecting parenting behavior and child outcome. McHale (1997) offered support for the emotion-security hypothesis, finding factor analytic support for coparenting dimensions of parental conflict that included covert (disparagement and undermining of the other parent in front of the children when the other parent is not present) and overt parenting behaviors (verbal and physical conflict in the presence of the child). As the study of parenting and child outcomes shifted from dyadic to triadic processes, the concepts of covert and overt parenting conflict styles became essential.

While research on the impact of coparenting behaviors on children have contributed to an understanding of the processes underlying covert and overt coparenting dynamics (Camara & Resnick, 1989; Emery, 1982; Fauber et al., 1990; Lansford, 2009), many studies of the effects of coparenting dynamics on children have treated coparenting as a composite dimension, failing to explore the impact of individual components of overt and covert coparenting dimensions on child psychological and socioemotional outcomes.

#### Coparenting and Child Outcomes in Intact Families

Early work in coparenting and marital conflict in intact families suggests that marital conflict influences child attachment security through its effect on parenting behaviors (Frosch et al., 2000; Owen & Cox, 1997) and those positive marital interactions may provide the parent with needed social support that encourages healthier parent-child interactions (see Goldstein et al., 1996). The meta-analysis of studies of coparenting in intact families by Teubert and Pinquart (2010) found that coparenting cooperation, conflict, and triangulation predicted internalizing and externalizing behavior in children. Since problematic coparenting dynamics are associated with internalizing and externalizing problems in children (Lansford, 2009; Teubert & Pinquart, 2010), it is imperative that the processes underlying this association be clarified because such difficulties have been shown to persist into later childhood and early adulthood, influencing social competencies and peer relationships (Eisenberg et al., 2006; Lansford et al., 2006; Teubert & Pinquart, 2010). For example, researchers found that when parents undermine or disparage the other parent in front of the children or do not support the other parent's rules and expectations, children become triangulated into the coparenting subsystem and can begin to experience emotional and behavioral distress (see Hetherington, 1989; Maccoby et al., 1992). Hart et al. (1998) found that higher levels of maternal coercion and lack of paternal responsiveness were

related to overt aggression in Russian nursery-school-aged children, while McHale et al. (1999) found that the degree of mutual support and involvement by coparents was associated with African American, Asian-American, Latino, and Caucasian children's early social interactions with peers.

Further supporting the proposition that high covert and overt conflict coparenting places child at risk for internalizing and externalizing behavior problem, Buehler et al. (1998) found that covert parenting behaviors were associated with internalizing behavior problem in children, while Lindahl and Malik (1999) found that overt marital conflict was associated with externalizing behavior in children, such as aggressive behavior and behavioral acting out. The association between coparenting and child outcomes is also found during infancy. For example, LeRoy et al. (2013) found that unsupportive coparenting of six-month-old infants was related to more behavior problems six months later. Feinberg et al. (2007) found that in intact families, coparenting conflict accounted for as much or more variance in parental negativity and adolescent antisocial behavior as marital disagreement and marital quality combined.

#### Coparenting and Child Outcomes in Post-Divorce Families

The coparenting relationship continues to be of significant developmental significance when parents separate. For example, Pruett et al. (2003) have shown that undermining post-divorce coparenting behavior may be linked to externalizing behavior in children. Others have also found more specific post-divorce parenting dynamics that are associated with adverse child outcomes. For example, child externalizing behavior problems have been found to be associated with exposure to parent-child triangulation and coparenting conflict (Benson et al., 2008; Teubert & Pinquart, 2010) and coparental undermining and lack of coparental support (Fosco & Grych, 2010; Pruett et al., 2003; Schick, 2002) while depression and anxiety have also been associated

with coparental undermining and lack of support (Benson et al., 2008; Shimkowski & Schrodt, 2012).

However, there remains a need in the literature to elucidate the processes underlying post-divorce coparenting behaviors and their outcomes for children and parents (Lamela et al., 2016; Petren et al., 2017), thereby providing essential building blocks for programs that help to prevent or minimize the harmful impacts of divorce and separation on children. Further, understanding post-divorce or separation coparenting dynamics is important because healthy coparenting dynamics is related to a variety of child, parent, and family outcomes, including fathers' well-being and continued involvement in child-rearing (Baum, 2003; Sobolewski & King, 2005), healthy parent-child relationships (Amato & Sobolewski, 2004), maternal depression (Whiteside & Becker, 2000), and child adjustment to divorce (Buchanan et al., 1996; Maccoby & Mnookin, 1997). Additionally, divorce imposes increased financial and emotional stress on individuals and on the coparent subsystem, triggering negative emotionality that can be transferred to the spousal subsystem and coparenting subsystem and, ultimately, to parenting behaviors (Riina & McHale, 2012).

It is now commonly accepted that whole-family, triadic processes consisting of coparental interactions characterized by support and warmth are associated with improved child emotional and behavioral outcomes for children of divorce. With support for the relationship between marital interactions, parenting behaviors, and child outcomes came calls for an understanding of the predictors of coparenting behaviors and the mechanisms linking coparenting behaviors with child outcomes.

#### Predictors of Coparenting Quality in Post-Divorce Families

Competitive/Undermining Coparenting. Undermining, or competitive, coparenting has become a distinct dimension of focus in the coparenting literature and is generally accepted to occur when one or both parents engage in behaviors that attempt to gain favor of the child over the other parent by usurping authority, contradicting or disparaging the other parent in front of the children, or attempting to dissuade the relationship between the child and the other parent.

Lamela et al. (2016) suggested that undermining coparenting behaviors, such as criticizing, disparaging, and blaming the other children, as well as triangulating children into the spousal relationship, may be the coparenting dimension most associated with internalizing problems in children. McHale et al. (2000) conceptualized competitive coparenting as parental competition for control over their child, trying to be a favorite parent, and undermining the other parent to achieve that goal, while Feinberg (2003) conceptualizes undermining coparenting on a continuum between support and competition, further proposing that couples adopt a competitive approach to coparenting to gain increased authority in the parenting role and warmth from the child at the cost to the other parent.

Undermining coparenting behaviors may play a distinct role in coparenting and child outcomes. For example, during the child's first five years, should parents with a propensity for negative affect experience increased environmental stressors, such as loss of spousal social support through divorce or separation and a risk of decreased contact with their children, they may be more likely to experience a decreased sense of efficacy in their ability to care for and protect their children and may compensate by increasing their attempts to regain a sense of control using undermining coparenting tactics.

The question remains as to whether support and undermining represent opposite ends of a spectrum of coparenting behaviors or are distinct domains of coparenting behavior with independent impacts on child outcomes. Pursuing this line of research, Lamela et al. (2016) performed a cluster analysis that revealed three distinct post-divorce coparenting profiles, high-conflict coparenting, undermining coparenting, and cooperative coparenting. Parents in the undermining cluster exhibited low levels of coparenting support, higher exposure of the children to conflict, and higher undermining behaviors, which included disparaging the other parent, sabotaging the other parent's parental authority, and negative interference in the child's relationship with the other parent. The authors found that children whose parents displayed characteristics of the undermining coparenting profile were more likely to present with internalizing symptoms, lending support to domain-specificity between undermining and supportive coparenting.

The literature examining the complex interpersonal, spousal, coparental, and extrafamilial influences on child outcomes following divorce or separation will benefit from further examination of the multilevel and whole-family dynamics that influence outcomes in children at the developmentally critical age between 1½ and 5. The symptoms and behaviors commonly explored in the undermining coparenting literature are consistent with representations of emotional and behavioral pathology outlined in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), which are often referred to as internalizing and externalizing symptoms, respectively. Internalizing symptoms refer to emotionally reactive behavior (such as panic, rapid mood shifts, worrying, and whining), anxious/depressed symptoms (such as having feelings easily hurt, general nervousness, fearfulness, and sadness), somatic complaints (such as increased complaints of aches and pains, constipation, headaches, and vomiting), and emotional

and social withdrawal (such as acting too young for his/her age, avoiding eye contact, not answering questions from adults, and low interest in social activities), sleep problems (such as nightmares, unwilling/unable to sleep alone, sleeping less, and waking often), while externalizing symptoms refer to symptoms such as attention problems (low concentration, inability to sit still, and clumsiness) and aggressive behavior (such as defiance, destroying property, hitting others, and showing little guilt for misbehavior). For example, McHale and Rasmussen (1998) found that competitive coparenting during infancy predicted teacher-rated aggression three years later, while Katz and Low (2004) and Schoppe-Sullivan et al. (2001) found competitive coparenting to be associated with behavioral problems and peer relationships at school, especially in interaction with family negative emotionality. Murphy et al. (2016) found that parental undermining had a strong positive effect on the relationship between competitive coparenting and child externalizing symptoms and this relationship remained strong even after controlling for low cooperative coparenting, high family conflict, and high negative family emotionality. This is important because it speaks to a possible domain-specific effect of competitive coparenting apart from the effects of cooperative coparenting.

For example, Benson et al. (2008) found that mothers in high-conflict post-divorce relationships tended to use more covert undermining coparenting behaviors in parenting adolescents. The authors suggest that this could be due to efforts to regain a lost sense of control due to multiple decision makers involved in high-conflict divorce, including court systems and extended family influences. Similarly, Shimkowski and Schrodt (2012) found that children from divorced families reported increased interparental conflict and antagonistic coparental communication, less support from parents, and decreased well-being compared to children of intact families. Importantly, the authors found that when parents engage in patterns in which one

parent demands to discuss marital difficulties and the other parents stonewalls or withdraws, and when the mother uses aggressive conflict tactics, such behaviors may link to undermining coparenting behaviors. This seems reasonable because when one makes efforts to resolve relationship difficulties (whether in healthy or unhealthy ways) and the partner disengages, one or both partners can experience decreased sense of support and decreased self-efficacy, or loss of control in the relationship. Katz and Gottman (1996) found that marital hostility was related to competitive coparenting, while other researchers found that interparental conflict was related to child adjustment difficulties, such as internalizing and externalizing behaviors (Krishnakumar & Buehler, 2000). McHale and Rasmussen (1998) found that competitive coparenting during infancy predicted teacher-rated aggression three years later, while Katz and Low (2004) and Schoppe-Sullivan et al. (2001) found competitive coparenting to be associated with behavioral problems and peer relationships at school, especially in interaction with family negative emotionality.

Research has shown an association between coercive control and psychologically controlling parenting and relational aggression in American children (Casas et al., 2006; Nelson & Crick, 2002), while Chang et al. (2003) and Lansford et al. (2005) found a similar association between coercive control and child aggression in a sample of Chinese children. Li et al. (2011) found that parents of Chinese parents who use aggressive interparental conflict-solving strategies also showed an increase in covert and harsh parenting behaviors, such as coercive control and psychological control. The authors explained this relationship using the Spillover Hypothesis (see Erel & Burman, 1995; Krishnakumar & Buehler, 2000), in that negativity from the spousal subsystem spills over into the parent-child subsystem. The authors also found that these coercive parenting behaviors were related to overt and relational aggression in the peer context. Murphy

et al. (2016) found that parental undermining had a strong positive effect on the relationship between competitive coparenting and child externalizing symptoms and this relationship remained strong even after controlling for low cooperative coparenting, high family conflict, and high negative family emotionality. This is important because it speaks to a possible domain-specific effect of competitive coparenting apart from the effects of cooperative coparenting.

**Parental Anxiety.** While it is essential to understand processes between coparents, it is also important to simultaneously understand intra-parental processes that affect coparenting functioning (Majdandzic et al., 2012). For example, Belsky (1984) argued that parents who themselves were raised to be emotionally secure, behaviorally independent, and socially competent were more likely to be psychologically healthy and able to display nurturant and empathic parenting behavior, and Mulsow et al. (2002) found that the personality characteristics of new mothers, such as being socially withdrawn, suspicious, anxious, or depressed are some of the most powerful predictors of parenting stress. Because stress can affect one's ability to form and maintain positive and healthy relationships (Hetherington et al., 1989), it is important to understand its causes and consequences. Further, there is evidence that maternal anxiety and depression are associated with maladaptive parent-child relations (Restifo & Bogels, 2009), that parental anxiety predicts child anxiety (McLeod et al., 2007), and that parental experience of a variety of psychiatric and emotional symptoms, such as depression and anxiety, influenced both their perceptions of coparental support and the quality of the parent-child relationship (Pruett et al., 2002).

Spousal conflict can also elicit high levels of parental emotion, including anxiety, anger, sadness, and feelings of being overwhelmed. Researchers have found that when these emotions arise due to negative parental affectivity, such as anxiety, parents were more likely to display

harsh (Le et al, 2017; Rueger et al., 2011) or insensitive (Teti & Gelfand, 1991) parenting approaches due to cognitions associated with self-doubt and ineffectiveness in the parenting role. Parenting stress has also been shown to mediate the relationship between parental negative affect and harsh parenting behaviors (Le et al., 2017). Parents with pervasive anxiety are more likely to perceive stressful situations, such as marital separation and coparenting stress, as a threat than as a healthy challenge, and perceptions of threat are more likely to result in a physiological hormonal and neurotransmitter reactions that prime the body for a fight or flight response (Adamo, 2014). The relationship between parental anxiety, propensity for perceived threat, and physiological reactivity can help to explain the relationship between parental anxiety and harsh coparenting practices (Rueger et al., 2017), which are associated with impaired psychological and social functioning in children (Bogels & Brechman-Toussaint, 2006; Le et al., 2017).

Researchers have also found that parental anxiety and anxious modeling can affect child emotional and behavioral outcomes both directly and through the mediating impact of coparenting behaviors (Bogels & Brechman-Toussaint, 2006; Murray et al., 2009).

While anxiety and depression have unique symptoms, many symptoms are common to both conditions, including fatigue, irritability, low frustration tolerance, high emotional and behavioral reactivity, and impaired focus and concentration. In fact, the comorbidity of anxiety and depression symptoms in adults is high. As noted by Pollack (2005), 58% of adults with symptoms of depression also presented with symptoms of anxiety and that for adults who do not meet the criteria for a formal anxiety or depressive disorder many have a subsyndromal overlap of depressive and anxious symptoms. As with symptoms of anxiety, there is evidence that maternal depression predicts problems in the coparenting relationship (Choi & Becher, 2019; McDaniel & Teti, 2012) and Tissot et al. (2017) found that parental depression was more likely

to influence coparenting behaviors than the reverse. For example, evidence shows that in the three years following divorce, mothers reported significantly more depressive symptoms and higher levels of stressful life events (Lorenz et al., 1997), and there is evidence that depressed parents report feeling less effective in the parenting role than non-depressed parents (Fox & Gelfand, 1994; Teti & Gelfand, 1991). There is also evidence that parental overcontrol and parental negativity are associated with child anxiety by promoting child perceptions of low selfworth and low competence (Bruggen et al., 2008; McLeod et al., 2007). Le et al. (2017) found that negative affect predicted harsh parenting by both the same (actor effect) other parent (partner effect) through the mediating effect of personal distress and parenting distress. Interestingly, these authors found a gender effect in the indirect relationship between maternal negative affect and paternal harsh parenting, but that the relationship was mediated by maternal distress only. Paternal negative affect did not have the same impact on maternal parenting behavior. It is commonly accepted in the clinical and empirical literature that stressful life events, such as divorce and separation, worsen or elicit symptoms of anxiety, so it is important to understand how anxious symptoms impact post-divorce coparenting behaviors.

Social Support. In addition to empirical evidence supporting a protective function of social support on adult emotional and mental well-being (Abbas et al., 2019; Li et al., 2014), there is evidence that parents are more likely to display healthy parenting behaviors in the context of supportive social relationships with friends and relatives and coparenting relationships with ex-spouses or partners (Crockenberg, 1981; Belsky, 1984; Teti et al., 1996). Researchers have eory of self-efficacy (Bandura, 1977) to understand the mechanisms underlying the relationship between social support, parenting behaviors, and coparenting behaviors. Cutrona and Troutman (1986) noted that Bandura's theory suggests that vicarious learning and verbal

persuasion are mechanisms linking social support with parenting behaviors, suggesting that watching other meaningful coparents acting in the parenting role and direct statements from others concerning one's competency as a parent will both impact one's beliefs about self-efficacy in the parenting role. Importantly, there is evidence suggesting that social support exerts its effects on parental mood through the mediating effect of self-efficacy, noting that social support increased confidence, possibly through vicarious learning and verbal persuasion (Cutrona and Troutman, 1986), which are also though to impact parental functioning by improving positive emotions and making it more likely that expectations about future interactions and conditions will have a positive outcome (see Marroquin et al., 2019). Importantly, there is evidence that social support may not always be received as beneficial. For example, Goldstein et al. (1996) found that new mothers' reports of higher support from their own mothers was associated with adverse parenting behaviors, while Affleck et al. (1989) found that social support, when it is not asked for or wanted, can have adverse consequences on one's sense of efficacy.

However, while intact couples benefit from coparental assistance with daily parenting responsibilities, lending support to each other's authority, and conveying an atmosphere of mutual respect and affection that is beneficial to children, coparents in the context of divorce or separation do not often benefit from such interactions (Cutrona & Troutman, 1986), especially when conflict is high. Understanding the role of spousal and non-spousal support on coparenting functioning is important in understanding the effect of divorce or separation on children.

*Spousal Social Support.* Research has shown that among married persons, the spouse is a frequent and important source of social support and that a lack of such support is associated with relationship dissatisfaction and adverse parenting and coparenting behaviors. For example, there

is evidence that mothers are more sensitive to their infants in the context of a supportive spousal relationship (Cox et al., 1989) and that when post-divorce coparents demonstrate decreased support of one another there tends to be an increase in harsh parenting behaviors (Cutrona & Troutman, 1986). Pasch & Bradbury (1998) found that in high-conflict couples, effort to solicit or provide support are more likely to be met with hostility. Feinberg (2003) also noted that support in the coparenting relationship can be a particular form of social support that is associated with maternal adjustment, parenting competence, and marital outcomes, including maternal post-partern depression and anxiety. Others have found that when parents are less conflictual and more supportive of parenting efforts, each parent experiences less parenting stress (Fagan & Lee, 2014). Pedro et al. (2012) found that support in the marital relationship transferred to the coparenting relationship, such that marital satisfaction stimulated interparental cooperation which minimized parental triangulation of the children and undermining the other parent's competence and authority. Interestingly, Cutrona (1996) found that other forms of social support were not able to offset the negative effect of lack of spousal or coparental support. An important premise of the current study is that single, divorced parents may experience increased stress in part because they lack the buffering social support from their spouse (e.g., Tein et al., 2000). However, there remains a need to understand the mechanisms driving the link between social support and parenting behaviors.

**Parental Self-Efficacy.** To fully understand the actions and emotions of parents and family members it is important to understand the cognitive processes to which they are linked (Bugental & Johnston, 2000). For example, the literature on family cognition has consistently suggested that when parents experience low self-efficacy, that is, when believe that they are incapable of resolving discrepancies between their perceptions and expectations of family

behavior, they can develop maladaptive emotional states and parenting behaviors that are linked to adverse child outcomes (see Johnston, Park, & Miller, 2018, for a review).

Understanding the processes underlying parental self-efficacy is important because low parental self-efficacy is associated with insensitive parenting behaviors, such as impatience, rigidity, and withdrawal (Teti et al., 1996) especially during times of high stress (Shumow & Lomax, 2002). Perceptions of competence in the parenting role have been shown to impact parenting dynamics by promoting sensitive caregiving and persistence, increasing confidence, and decreasing negative affect (Albanese et al., 2018). As proposed by Belsky (1984) and Belsky et al. (1995) in the determinants of parenting model, individual parent characteristics, such as anxiety and perceived self-efficacy, are important determinants of coparenting behaviors because they influence both parenting behaviors directly and spousal relationships.

Personal efficacy is generally defined as an individual's perception that they have control over outcomes in their environment or situation (Bandura, 1997). Parental self-efficacy is a commonly explored extrapolation of personal efficacy that links cognition to parental behaviors that represent their perception that they have the knowledge and ability to positively influence their child and the environment in ways that promote their child's development outcomes (Coleman & Karraker, 1998; Jones & Prinz, 2005). According to the stress-coping framework, self-efficacy corresponds with one's belief in their ability to fulfil the demands of tasks within their environment; and their beliefs in their capabilities affect how much motivation, stress, and depression they experience in threatening or taxing situations (Bandura, 1989). Self-efficacy theory suggests that those with a low sense of self-efficacy believe that they cannot exercise control over stressors and then experience high levels of subjective stress and autonomic arousal. For example, Beck (2001) found that low self-efficacy predicted symptoms of post-partum

depression, and Belsky (1986) found that parents with lower self-confidence have a decreased tendency to meet the emotional and physical needs of their children; and Cutrona and Troutman (1986) found that social support exerts a protective function against maternal depression through the mediating role of parental self-efficacy.

Feinberg (2003) suggested that parental self-efficacy may be an essential link between coparenting and parenting performance given its role as a mediator between social support and maternal negative affect and parental sensitivity. In a meta-analytic review by Jones and Prinz (2005) it was found that higher levels of parental self-efficacy predicted more effective parenting behavior in the context of challenging child behaviors and that parental self-efficacy mediated the relationship between parental adjustment and environmental context, such as low social support. This suggests that parents who experience low levels of social support and adverse environmental conditions are more likely to experience lower levels of self-efficacy and to display fewer parenting behaviors that promote positive child outcomes. For example, Tazouti and Jarlegan (2019) found that mothers with high self-efficacy are more likely to be involved in their children's daily learning and play activities and are more likely to show parenting warmth, improved parenting skills, and to display educational practices that facilitate academic and social learning. Consistent with those findings, Eccles and Harold (1996) found that parents who felt that they were able to be effective in helping their children with academic tasks were more likely to actively assist than when they felt that they were unable to help. Similarly, Hoover-Dempsey et al. (2005) found that when parents felt intellectually capable of helping their adolescent children succeed in school, they were more likely to become involved in volunteer activities in the school and with communication with teachers. Further, Brody et al. (1999) found that when financial resources were perceived to be adequate, mothers were more likely to believe that their

parenting behaviors would be effective in impacting child outcomes. Further, the authors found that mothers' efficacy beliefs were associated with setting and promoting development goals such as education, respect for others in the community, and concern for others.

In a meta-analytic study on the relationship between parental self-efficacy and child outcomes, Albanese et al. (2019) found that high levels of parental self-efficacy predict responsive parenting behaviors, less coercive parenting practices, the setting of appropriate developmental goals, more authoritative parenting, increased parenting skill, more effective child management strategies, less dysfunctional parenting, higher parenting quality, increased parental sensitivity, and improved parent-child interaction. The authors found that these practices were related to improved child emotional and behavioral outcomes, including children's mental health and academic performance. Conversely, researchers have found that low parental self-efficacy is associated with parental frustration, anxiety, and irritation (de Haan et al., 2009; Sanders & Wooley, 2005) and parental stress, poor adaptation to parenthood, and decreased parenting satisfaction (Albanese et al., 2019). Importantly, Albanese et al. (2019) also found that parental self-efficacy both predicted and was predicted by cognitive and mental health processes, such that if mothers believed that their parenting behaviors would be effective, they were more likely to engage in those behaviors. Similarly, Cooper et al. (2009) found that when parents believe that they do not have the resources needed to meet the demands of parenting, they can become overwhelmed and anxious. Perceptions of control in the context of divorce or separation can be especially salient. Emery (1994) noted that a lack of control over custody decisions and financial support can increase a sense of low self-efficacy. In fact, families of divorce experience frequent affronts to their sense of control given what often amounts to two independent households,

schedules, expectations, and dynamics, especially in situations when coparents are hostile and noncooperative.

Parent and Child Age. Mangelsdorf et al. (2011) argued that coparenting quality may follow a developmental trajectory that begins before a child is born and continues through the course of child, parent, and family development. Because parents and children may develop different values, beliefs, and proclivities to risk and resilience, it is important to understand the impact of parental and child age on coparenting behaviors and child outcomes. While there is some evidence suggesting that parental age or child age is associated with coparenting quality, there is insufficient evidence to establish a definitive relationship. Despite sparce evidence to support a direct relationship between parental age and coparenting behaviors, there is evidence to support a relationship between parental age and marital conflict. For example, older couples have been found to experience less emotional stress (Levenson et al., 1994) and less hostility during disagreements (Carstensen et al., 1995). Further, there is some evidence that suggests that fathers of infants are more supportive and cooperative in the coparenting role than mothers (Gable et al., 1995; Gordon & Feldman, 2008), lending support for the impact of child age on coparenting behaviors. However, it seems less likely that age of the child would impact parenting quality and more likely that age of the child would impact coparenting behaviors that are reflective of the developmental needs of the child. However, given the relationship between coparental hostility and child outcomes, it remains important to continue explorations into the complex and indirect relationships between parental age, child age, and coparenting behaviors.

**Parent Gender.** Parental beliefs, personality, and attitudes are all linked to the development of coparenting relationships. Further, individuals who have thought about becoming parents, have imagined what it might be like to coparent, and have developed shared

imaginings with a potential or actual coparent may have developed an "internal working model," or set of expectations, for what parenting and coparenting should or could look like. Van Egeren (2003) presents evidence that women are more likely to have established an internal model of coparenting than men, which might make them more prepared to enact and maintain healthy coparenting behaviors, especially when their husband or partner was older and more educated.

In addition, perceptions of social support and equality of division of labor and coparental conflict have been shown to be moderated by parent gender. For example, Cowan and Cowan (1988) found that maternal perceptions of inequality in household chores was a strong predictor of coparental conflict following the birth of a child; and Terry et al. (1991) found that perceptions of inequality in the division of labor in the home were linked to decreased marital quality. Others have found similar dynamics surrounding the division of labor, spousal gender, and coparental/relationship conflict. For example, Braungart-Rieker et al. (1999) found that fathers in families where both parents were employed tended to be less sensitive to sons and more negative toward wives compared to single-earner families. Since work in the home still needs to be attended to, the lack of sensitivity and reactivity could be due to emotional and physical fatigue and/or from pressure by wives to assist with chores and childcare in the home. Van Egeren (2003) also found that discrepancies in parenting philosophies eventually led to a decrease in maternal perceptions of coparenting satisfaction and that this was not true for fathers. Others have found that fathers show more supportive coparenting behaviors during their child's infancy than do mothers (Gable et al., 1995; Lindsey et al., 2005), while Schoppe-Sullivan et al. (2008) found that coparenting improved when fathers were more involved in childcare, especially when mothers perceived that care to be competent. Others have found that mothers experienced increased perceived self-efficacy when their parenting partner was more engaged in

parenting, especially when the parenting behaviors were perceived to be adequate (Markham & Coleman, 2012; Tazouti & Jarlegan, 2016). Relatedly, Umemura et al. (2015) found that competitive coparenting (undermining of coparental authority) was more related to mothers' disapproval of fathers' parenting approach than to fathers' disapproval of the mothers' parenting approach. In their finding that fathers' displays of competitive coparenting behaviors predicted more attentional and disinhibition problems and more behavioral defiance, the authors suggest that children experience a stronger emotional and behavioral impact due to the mother's role as the primary source of security as psychological parent.

Also offering support for the impact of parental gender on coparental quality, Pedro et al. (2012) found that the parenting behaviors of fathers are more easily influenced by coparenting support from mothers than vice versa. The authors also found support for the moderating role of parent-child gender in the relationship between coparenting behaviors and parenting practices in that mothers who were perceived by fathers to contribute to coparental conflict led to increased paternal rejection of boys while perceptions of fathers' contribution to conflict did not result in maternal rejection of boys. This is similar to an earlier work by McHale (1995) who found that hostile-competitive coparenting behaviors were more likely in families with boys as well as later work by Umemura et al. (2015) who found that fathers' competitive parenting behavior, but not mothers', predicted greater attentional and behavioral difficulties in two-year-old children.

Authors and researchers have offered support for the idea that social support received from one's spouse may have a strong impact on maternal adjustment to parenthood (Feinberg, 2003), including severity of depression (O'Hara & Swain, 1996). Similarly, there is a gender difference in coparenting behaviors when parents are observed interacting with their child in a triad. For example, mothers have been shown to be more engaged and secure in triadic

interactions, while fathers tend to be less engaged, and this dynamic is not seen during dyadic interactions between mother-child and father-child (Gjerde, 1986). There is also evidence to support an interaction between parental gender, parental emotionality, and coparenting behaviors. For example, Le, Fredman, and Feinberg (2017) found gender differences in the indirect partner effect from negative affect to harsh parenting behaviors, such that maternal negative affect predicted paternal harsh parenting through the mediating effect of child rearing stress.

Child Gender. Understanding the relationship between child gender, coparenting behavior, and child and family outcomes is important because child gender has been associated with specific emotional and psychological outcomes (Umemura et al., 2015) and with differential emotional and behavioral reactions to parental divorce (see Amato & Keith, 2001). Amato and Keith (2001), in a meta-analysis, found that divorce was more likely to affect the well-being of boys than girls, with boys experiencing higher levels of disinhibition (see Belsky et al., 1996; Umemura et al., 2015) and anxiety and depression (see McHale et al., 1999). In intact families, Feinberg et al. (2007) found that coparenting conflict accounted for as much or more variance in parental negativity and adolescent antisocial behavior as marital disagreement and marital quality combined; and this relationship was stronger for girls than for boys.

While some studies have found child gender to play a moderating role in the relationship between coparenting and family outcomes (see Amato & Keith, 1991; Whiteside & Becker, 2000), other studies find minimal to no moderating effects of child gender (Floyd et al., 1998; McHale, 1995). As parenting behaviors play out throughout the childhood years, disagreements between coparents about these parenting philosophies have been shown to be associated with child gender-specific outcomes. For example, Vaughn et al. (1988) found that disagreement

about parenting approaches was associated with decreased moral reasoning and sociability and increased social alienation in boys and with decreases in self-confidence, responsibility, social skills, and ability to cope with adversity in girls. Others have found that lower quality coparenting behaviors predicted preschool boys' disinhibition (Belsky et al., 1996) and depression and anxiety (McHale et al., 1999). Umemura et al. (2015) found that competitive coparenting predicted young boys', but not girls', symptoms of disinhibition and girls', but not boys, somatic complaints. Belsky et al. (1989) found that fathers in high conflict marriages displayed lower levels of engagement with their daughters and increased engagement with sons. Relatedly, McHale (1995) found that marital distress was associated with coparenting problems in families with boys, and Teubert and Pinquart (2010), in a meta-analysis of the relationship between coparenting behaviors and child adjustment, found a stronger association between low parental agreement in parenting approach and poor social functioning for boys than for girls. To explain these dynamics, Feinberg (2003) suggests that chronic coparental negativity in families with boys may lead mothers to triangulate boys into the coparenting conflict in an effort to initiate an intrinsic drive by fathers to invest in sons more than daughters and to persuade them to reengage, however negatively, in family interactions. As noted by McHale (2003), these dynamics may lead boys to experience higher levels of family conflict and may lead girls to experience discrepant paternal engagement or even paternal absence.

Income, Education, and Social Class. Richman et al. (1992) found that mothers with higher levels of education are more verbally responsive to their infants and suggest that educational opportunities provided them with verbal skills and models of adult-child verbal instruction. Incidentally, this lends support to Bandura's (1986) theory of vicarious learning discussed above and the importance of social support in parenting and coparenting behaviors. As

noted by Stright and Bales (2003) parental education may also provide parents with perspective-taking skills, knowledge about child development and parenting approaches, and more adaptive attitudes about cooperation. Further, individuals with higher education are more likely to have developed critical thinking skills (Van Prooijen, 2017) and may be less likely to accept simple explanations for complex events. However, in their finding that the greater the difference between coparental levels of education the greater the likelihood of problematic coparenting behaviors, Belsky et al. (1996) suggest that when it comes to coparenting quality it is less the level of education of a particular coparent and more the disparity in education levels between coparents. Similarly, as noted by Mangelsdorf et al. (2011), an association has been found between socioeconomic status and coparenting quality. However, the authors suggest that life stressors may mediate the relationship given the high levels of stress that are common in families of lower socioeconomic status.

Race, Ethnicity, and Coparenting. Inherent in the definition of coparenting is the idea that children are raised in the context of family systems in which multiple parenting figures simultaneously raise and care for children, regardless of relationships status (McHale & Lindahl, 2011). Coparents are often defined by the culture in which the children are raised, and adaptive coparenting structures can be achieved that consistently meet the best interests of the children. For example, as noted by Feinberg (2003), in cultural contexts in which coparents extend beyond the nuclear family, children who experience high parental conflict might benefit from an extended network of supportive caregivers. For example, in many African American families, coparents are represented by multi-generational, and even extra-familial, figures (Crosbie-Burnett & Lewis, 1999; Riina & McHale, 2012), while in some Vietnamese families, aunts and uncles have full authority to discipline children and engage in caregiving activities (Kurrien &

Vo, 2004). A collectivistic approach to coparenting is common among many ethnic minority groups in the United States, with definitions of family and coparenting often extending beyond the nuclear family.

When researchers and interventionists fail to recognize the diverse conceptualizations of coparenting, they risk neglecting the essential influence of "multi-coparent" systems on child outcomes following divorce or separation. It is now commonly accepted in the coparenting literature that regardless of who is defined as a coparent there remains an essential need of children that those engaged in the coparenting endeavor provide consistent and continuous care for the emotional and physical well-being of the children (McHale, 2007). Understanding the distinct dynamics within diverse coparenting configurations is important because should the coparenting system become unable to meet the best interests of the children, evidence-based interventions might be able to mitigate the risk of adverse child outcomes. Unfortunately, it was not until the late 1990s that researchers began to pursue evidence to support the culturally diverse ecology of coparenting dynamics in American families (Feinberg, 2003). For example, several studies have shown that African American teenage mothers have better emotional and parenting outcomes with they receive high-quality coparenting support from other adults and extended family members, especially when the relationship between the mother and the coparents is strong (Jones & Lindahl, 2011). Further, research has found that a healthy grandmother-mother-child dynamic in African American families can play an important role in improved psychosocial adjustment and educational attainment of children, and in healthier coparenting behaviors (Gee & Rhodes, 2003; Wakschlag et al., 1996). This research supports the importance of assessing the coparenting dynamic in African American families from a

collectivist perspective while emphasizing the need for the differential treatment of ethnically diverse coparenting populations.

Another example of ethnicity-informed evaluation of coparenting dynamics comes out of the distinct social dynamics of Native American communities. As noted by Jones and Lindahl (2011), grandparents in Native American families, much like those in African American families, take significant responsibilities for the outcomes of children. However, grandparents in Native American families are more likely than those in African American families to provide direct, rather than ancillary, care to the children. Further, coparenting in Native American families tends to extend beyond grandparents into the extended family network, as the child is seen as being born into both the birth family and the tribal kin network. Findings from such research in multi-ethnic coparenting systems point to the importance of accounting for diverse and complex influences on coparenting dynamics and outcomes for children.

## **Unanswered Questions**

Given the diversity of outcomes of children of parental separation, there is a need to clarify the coparenting construct and to develop more complex path models linking determinants of coparenting quality and child outcomes. Since coparenting quality is a multidimensional construct, and in order to identify domain-specific entry points for clinical intervention, it is important to establish the distinct pathways linking predictors of coparenting quality with the distinct dimensions of coparental quality. This study framed coparenting processes using Feinberg's ecological framework (Feinberg, 2003) to explore the latent structure of coparenting quality and the hypothesized pathways linking post-separation coparental quality, social support, parental self-efficacy, and parental anxiety with child outcomes.

## **Hypotheses**

- 1. Parents with higher levels of social support report higher levels of coparenting quality
- 2. Parents with higher levels of anxiety will report lower levels of coparenting quality
- 3. Parents with higher levels of anxiety will report higher levels of child problem behavior
- 4. Parents with higher levels of self-efficacy will report lower levels child problem behaviors
- 5. Parents with higher levels of self-efficacy will report improved coparenting quality
- 6. Parenting self-efficacy will mediate the relationship between social support and coparenting quality
- 7. Parental anxiety will mediate the relationship between social support and coparenting quality
- 8. Parenting self-efficacy will mediate the relationship between anxiety and coparenting quality
- 9. Coparenting quality will mediate the relationship between self-efficacy and child problem behavior

#### **Methods**

# Sample

Participants were recruited using Amazon Mechanical Turk (MTurk), an increasingly popular online crowdsourcing environment, administered by Amazon. MTurk has been widely used in the behavioral sciences since approximately 2012 to recruit large populations of willing participants for research studies (Cheung et al., 2017). MTurk facilitates the recruitment and compensation of research participants who agree to complete research surveys. Amazon monitors the work completed by participants to ensure completion of tasks and quality of the

work, which increases the confidence that respondents are honest and diligent. Buhrmester et al. (2011) found that data provided by MTurk participants had satisfactory psychometric properties comparable to characteristics of published studies, while Horton et al. (2011) found that experiments conducted on MTurk were as valid (both internally and externally) as other kinds of experiments (i.e., laboratory and field experiments). Further, the demographic information of MTurk participants is not available due to confidentiality, there is evidence that the demographic characteristics of MTurk participants is similar to that of the United States population (Pew Research Center, 2020), with the possible exception of a slight over-representation of women.

For the current study, participants were informed prior to agreeing to complete the questionnaire of the nature of the research and type of task they would complete and were told ahead of time how long the survey would take to complete and what their compensation would be. Participants completed a screening questionnaire (see Appendix A) to ensure that they were currently residing in the United States, were fluent in English, were living separately from their child's other parent, and who had at least one child aged 1½ to 5 years. Qualified and willing participants completed an online consent for participation and task description, which included research objectives as well as researcher contact information (see Appendix B). Since identifying information of MTurk participants, such as Amazon shopping "wish lists" and previous product reviews, can be linked to individual Amazon profiles (MTurk Guidance, 2019), a confidentiality agreement notified participants that identifying information will not be collected, that all responses to the questionnaires will be kept confidential and secure, and that their responses will be deleted following completion of the research. Upon consenting to participation participants clicked a link that brought them to the Qualtrics questionnaire. Qualtrics is a secure online survey software site. The questionnaire was published in English. The questionnaire took

approximately ten minutes to complete, and participants were reimbursed \$4.00 for their time. The full Qualtrics survey is shown in Appendix C.

The final study sample included 322 total participants who were residing in the United States, were fluent in English, were living separately from their child's other parent, and who had at least one child aged 1½ to 5 years. Descriptive statistics for demographic variables are displayed in Table 1. 81.7% of respondents were White, 38% were males and 62% were females. Respondents had a mean age of 32.32 (SD=7.55). Eighty-five percent of respondents held a college degree, 15% held less than a college degree, and 52% had an income above \$50,000. The target child sample was comprised of 38% male and 61% female with a mean age of 3.04 (SD=.958). Descriptive statistics for divorce variables are displayed in Table 2. Seventy-five percent of respondents reported holding joint custody of the target child and 25% reported holding sole custody. Sixty-seven percent reported that the target child resided with them most of the time, while 23% reported that the target child resided equally between themselves and coparent, and 10% reported that the target child resided with the other coparent the majority of the time. Eighty-five percent of respondents reported that the process of determining custody of non-conflictual and 84% of respondents were satisfied with the final custody arrangement.

#### **Measures and Constructs**

# Coparenting Quality

Coparenting quality was measured using the Coparenting Relationship Scale (CRS; Feinberg et al., 2012). Five items from the questionnaire were removed as they assessed conflict within intact couples, rather than in parents of divorce. In total, participants completed thirty (30) items which were answered on a six-point scale ranging from "not true of us" to "very true of us." Four items measured coparenting agreement (for example, "my partner and I have different

ideas about how to raise our child"). Five items measured coparenting closeness (for example, "my relationship with my partner is stronger now than before we had a child"). Six measured coparenting support (for example, "my partner asks my opinion on issues related to parenting"). Six items measured coparenting undermining (for example, "my partner tries to show that he or she is better than me at caring for our child"). Seven items measured whether the respondent endorsed their partner's coparenting (for example, "my partner has a lot of patience with our child"). Two items measured division of labor (for example, "my partner does not carry his or her fair share of the parenting work"). Higher scores on the Coparenting Relationship Scale indicate more positive coparenting, except for the exposure to conflict and coparenting undermining subscales, which are reversed. Feinberg et al. (2012) offered strong convergent validity with couple love (r = .60 - .71), couple efficacy (r = .60 - .65), and quality of marriage (r = .64 - .71). The final measure of coparenting quality is presented in Appendix D.

## Parental Perceived Self-Efficacy

Parental perceived self-efficacy was measured using the Parenting Sense of Competence Scale (PSOC). The PSOC was developed by Gibaud-Wallston and Wandersman (1978) and targeted parents of infants. In a recent review of the role of parental self-efficacy, Jones and Prinz (2005) identified the PSOC (Johnston & Mash, 1989) as the most used tool for measuring parental self-efficacy. This study used the PSOC adapted by Johnston and Marsh (1989) which was translated for use by parents of children within the age group of the current study. The adapted PSOC consists of sixteen items which were answered on a six-point scale ranging from "strongly disagree" to "strongly agree." Nine items measured satisfaction with the parenting role (for example, "if being a mother/father of a child were only more interesting, I would be motivated to do a better job as a parent"). Seven items measured perceived efficacy in the

parenting role ("if anyone can find the answer to what is troubling my child, I am the one"). A higher score on the PSOC indicates a higher parenting sense of competency. Johnston and Marsh (1989) found Cronbach's alpha of .79. Cronbach's Alpha for the Parenting Sense of Competence Scale in the current study was .52, suggesting low internal consistency of the PSOC in use with the current sample. T. However, as has been discussed in the literature, low alphas may not be a sufficient indication of internal consistency (Cortina, 1993; George & Mallery, 1995; Schmitt, 1996), while George and Mallery (1995) suggest that an alpha between 0.5-0.6 is poor but sufficient. The full Parenting Sense of Competence Scale is shown in Appendix E.

#### Parental Anxiety

Parental anxiety was measured using the Short Form Taylor Manifest Anxiety Scale (TMAS), which is a 20-item scale answered "true" or "false." An example of the Short Form TMAS is, "I worry quite a bit over possible misfortunes." The higher the score on the TMAS the higher the level of trait anxiety. Validity for the Short Form of the TMAS is not readily available. However, Bendig (1956) suggested that the 20-item Short Form TMAS provides scores that are "about as reliable as the 50-item" TMAS, are highly related to scores on the standard form, and is "probably more valid than the longer" TMAS. Lowe & Reynolds (2004) found the adult TMAS to have moderate construct validity between .44 - .61 when compared to the Negative Affectivity Composite scale scores of the Checklist of Problems and Resiliency and moderate to high correlation coefficients between .30 - .70 when correlated with the Multiscore Depression Inventory. Cronbach's Alpha for the Taylor Manifest Anxiety Scale in the current study is .61, which is low but acceptable. The full Taylor Manifest Anxiety Scale is shown in Appendix C.

#### Child Outcomes: Problem Behaviors

Child emotional and behavioral difficulties were measured using sixty items from the Child Behavior Checklist (CBCL; Achenbach, 2001). Items from the CBCL are scored on either the Syndrome Scales or the Diagnostic and Statistical Manual of Mental Disorders- (DSM-V) oriented scales. The CBCL also contains three open-ended qualitative questions, which were not included in the current study due to the quantitative nature of analysis. In this study the CBCL was scored using the Syndrome Scales, which are shown to factor into internalizing and externalizing scales. Using a three-point Likert-type scale (Not True, as far as I Know/Somewhat or Sometimes True/Very True or Often True), respondents were prompted to report the behaviors that have occurred within the prior six months, with reference to their youngest child who is between the ages of 1½ and 5 years of age. The internalizing scale consists of four subscales: Emotionally Reactive (9 items, e.g., "rapid shifts between sadness and excitement"), Anxious/Depressed (8 items, e.g., "feelings are easily hurt"), Somatic Complaints (11 items, e.g., "headaches, without medical cause"), and Withdrawn (8 items, e.g., "avoids looking others in the eye"). The externalizing scale consists of two subscales: Attention Problems (5 items, e.g., can't concentrate, can't pay attention for long") and Aggressive Behavior (19 items, e.g., "defiant"). The Syndrome Scale includes a seventh subscale, Sleep Problems, which is not included in the current student as it does not encompass internalizing or externalizing problems. In the current study, as further discussed below, child problem behavior was analyzed as an aggregate of the internalizing and externalizing dimensions to maximize statistical power of the path models. Additionally, consistent with the practice of Umemura (2015), the dimensions were aggregated because the lower limits of child age in the current sample make internalizing difficulties more difficult to discern.

The CBCL is shown to have a test-retest reliability of 0.85 (Achenbach and Rescorla (2001). Following the practice of Lamela et al. (2016) the current study will not use the Prosocial Behavior subscale because it measures neither internalizing nor externalizing behavior. High scores on the CBCL indicate more child behavioral or emotional difficulties. Cronbach's Alpha for the Total Problem Behaviors in the current study is .98. The Child Behavior Checklist can be found in Appendix D.

#### Social Support

Parental perceptions of social support were measured using the five-item Social Provisions Scale (SPS-5; Orpana et al., 2019). The SPS-5 assesses a broader range of social support outside of, and including, the ex-spousal/coparent relationship. The measure has been used with diverse samples, including public school teachers, college students, therapists, and spouses of cancer patients (Perera, 2016), and remains widely used in research and clinical settings (Orpana et al., 2019). The SPS-5 is an abbreviated version of the ten-item Social Provisions Scale (SPS-10; Caron, 2013) and the SPS-10 is an abbreviated version of the twentyfour item Social Provisions Scale (SPS; Cutrona & Russell, 1987). Each item of the SPS-5 is scored on a four-point Likert scale ranging from one (Strongly Disagree) to four (Strongly Agree). The SPS-5 shows strong correlations with the SPS-10 (r = .97) and the SPS-5 revealed a Cronbach's alpha of .88. An example of an SPS-5 item is, "I have close relationships that provide me with a sense of emotional security and well-being." Higher scores on the SPS-5 represent higher levels of social support. Cronbach's Alpha for the Social Provisions Scale in the current study is .77. The Social Provisions Scale used in the current study can be found in Appendix E.

#### **Observed Variables**

Respondents were also asked to provide additional information about themselves and their family.

**Child Age and Respondent Age.** Respondents were asked to provide the age of their youngest child who is between the ages of 18 months and 5 years as well as their own age.

**Child, Respondent, and Coparent Gender.** Respondents were asked to provide the gender of their youngest child who is between the ages of 18 months and 5 years as well as their own gender and the gender of their coparent. Child, respondent, and coparent gender were recoded as: female (1), male (2).

Respondent Education, Ethnicity and Race, and Income. Respondents were asked to provide their highest level of education, their ethnicity and race, and their income range. Parental education was recoded as: "some college, trade school, or less" (1) and "college degree" (2). Race was recoded as: "White" (1) and "non-White" (2). Ethnicity was recoded as: "Hispanic, Latino, or Spanish origin" (1) and "not Hispanic, Latino, or Spanish origin" (2). Income was recoded as: "less than \$10,000" (1) to "more than \$150,000" (12).

**Coparental Arguments.** Respondents were asked to indicate the frequency of arguments with their child's other parent ranging from once a month or less to daily. Coparental arguments was recoded as: "once a month or less" (1) to "daily" (4).

**Coparental Hostility.** Respondents were asked to provide the degree of hostility with their child's other parent. This captured the intensity of coparental arguments, ranging from "none" (1) to "life threatening" (6).

**Custody Arrangement.** Respondents were asked to indicate any combination of whether their child was under their sole custody, joint legal custody, joint physical custody, joint legal

and physical custody, or some other arrangement described narratively. Custody arrangement was recoded as: "sole custody" (1) and "joint custody" (2).

**Child's Majority Residence.** Respondents were asked to indicate if the child resides "most of the time" with themselves, their child's other parent, both of them, or some other arrangement described narratively. Child majority residence was recoded to indicate that the child resides mostly with "me [respondent]" (1), "other parent" (2), or "both" (3).

**Satisfaction with Custody Arrangement.** Respondents were asked to indicate how satisfied they are with the current custody arrangement, ranging from extremely satisfied to extremely dissatisfied. Satisfaction with custody arrangement was recoded as: "satisfied" (1), "neither" (2) and "dissatisfied" (3).

**Custody Process.** Respondents were asked to name the process used to establish the current custody arrangement. Custody process was recoded as: "non-conflictual" (1; comprised of response options, "mediation," "counseling," "decided on our own") and "conflictual" (2; comprised of response options, "used lawyers," and "no choice").

#### **Theoretical and Path Models**

The theoretical model, presented in Figure 1, illustrates theoretical relationships between three predictor variables (parental anxiety, social support, and parental self-efficacy) and two outcome variables (coparenting quality and child problem behaviors). Path analysis was conducted to test these direct effect hypotheses. A research model was developed to test the direct and mediation effects between social support, anxiety, self-efficacy, child problem behaviors and coparental quality. Figure 2 illustrates the initial research model.

## **Analytic Approach**

As the utilized scales are well-established in the coparenting literature and have been shown to be psychometrically sound, the manifest scores were utilized in the current study.

Therefore, to test the strength of the hypothesized direct effects and mediational pathways path analysis was conducted using the Analysis of Moment Structures (AMOS) add-on module within IBM Statistical Package for Social Sciences (SPSS). Path analysis consists of a series of independent, multiple regression models that reveal direct and indirect causal relationships among variables (Nusair & Hua, 2010). As an extension of multiple regression, path analysis supports hypotheses or theories that specify relations a priori, enabling simultaneous testing of multiple theoretical relationships, including direct and mediational relationships (Hair et al., 2006; Ho, 2006). A mediating variable is one that helps to explain the relationship between a predictor and outcome variable, such that the introduction of the mediating variable into the relationship may weaken or strengthen the direct relationship between variables (Hayes, 2018). Path analysis was chosen for the current study to supplement the regression-based approach because in path analysis more than one outcome variable can be examined simultaneously within the same path model. Path analysis also yields model fit indices and more easily manages variables as both predictors and outcomes in the same path analysis.

# **Data Analysis and Findings**

#### **Data Screening**

Data was screened to ensure that the data was correctly entered, free from missing values and outliers, and to confirm that the distributions of variables were normal.

## Missing Values

Since MTurk respondents cannot submit their final responses with incomplete responses, missing data was not expected. However, to ensure that the data was free from missing values, frequency and missing value analysis was conducted for each measurement item in this study.

The screening results of the data showed that there are no missing values among the 322-sample data set.

#### **Outliers**

The treatment of outliers is necessary during data screening as outliers could affect the normality of the data which could then distort the statistical results (Hair et al. 1998; Tabachnick and Fidell, 2001). Outliers refer to observations with a unique combination of characteristics that are distinctly different from the other observations (Hair et al. 1998). The data was assessed for univariate outliers using histograms and boxplots. Assessment suggested that there were no univariate outliers.

#### Assessment of Data Normality

The normality test was conducted to determine whether the data of a variable is distributed by a normal curve. Non-normal distributed, or kurtotic variables, are those that are highly skewed, either to the left or to the right, and can distort relationships and significance tests. In this study, skewness and kurtosis were employed to assess normality of the data. To confirm the univariate normality in the current study, skewness and kurtosis values smaller than an absolute value of 2 and 7 respectively demonstrated sufficient normality (Ho, 2006; Olsson, Foss, Troye, & Howell, 2000; Oppenhein, 1966). The results indicate that the skewness values for each of the main study variables ranged between -1.34 and 0.62 which were between acceptable range of ±2. The kurtosis values were also ranged between -2.01 and 1.13, within the acceptable range of ±7. Therefore, it can be concluded that the data set of all items were well-modelled by a normal distribution.

## **Dimensions of Coparenting**

Given that the coparenting construct is represented with different numbers of underlying dimensions across conceptualizations, the factor structure of coparenting was first assessed. The mean scores for the six subconstructs of the coparenting scale were subjected to exploratory factor analysis using varimax rotation. Tables 5 and 6 display the total variance explained and the rotated component matrix, respectively. Only two components were retained with eigenvalues above 1.00, which provides sufficient evidence that the coparenting subscales were measuring two factors in use with the current sample. The first factor is comprised of coparenting closeness, coparenting support, and endorsement of partner parenting, herein called coparenting quality interpersonal, while the second factor is comprised of coparenting undermining, division of labor, and coparenting agreement, herein called coparenting quality instrumental. The two coparenting factors and associated scale items are delineated in the full Coparenting Relationship Scale displayed in Appendix D.

## Coparenting Quality Interpersonal

The first factor, herein referred to coparenting quality interpersonal, comprised of the coparenting closeness, coparenting support, and endorse partner parenting scales relates to a quality of the coparenting relationship that is associated with interpersonal characteristics of the respondent, such as perceptions, cognitions, appraisals, and emotions. For example, the item from the coparenting support subscale that reads, "my child's other parent appreciates how hard I work at being a good parent," appears to represent the respondent's subjective appraisal of the coparent's intention. Within this first factor, several items appear to be related to the respondent's perception/interpretation of the coparent's thought process or behavior that would not likely be explicitly expressed by the coparent. These items include, "my child's other parent

doesn't like to be bothered by our child," from the endorse partner parenting subscale; "my child's other parent makes me feel like I'm the best possible parent for our child," from the coparenting support subscale; and "my child's other parent still wants to do his or her own thing instead of being a responsible parent," from the endorse partner parenting subscale. The coparenting quality interpersonal variable might be conceptualized as the perceptions, cognitions, and appraisals that are established from past interpersonal experiences and relationships and that comprise the anticipations, expectations, and emotional potentialities of future coparental interactions.

# Coparenting Quality Instrumental

The second factor, herein referred to as "coparenting quality instrumental," is comprised of the coparenting undermining, division of labor, and coparenting agreement factors of the Coparenting Relationship Scale (Feinberg, 2003). Items from the factors appear to relate to observable, objective actions or behaviors of the respondent or coparent, or within coparenting interactions. For example, the item from the coparenting support subscale that reads, "my partner asks my opinion on issues related to coparenting," the item from the coparenting agreement subscale that reads, "my partner and I have different ideas about how to raise our child," and the item from the coparenting undermining subscale that reads, "my child's other parent undermines my parenting," each appear to represent the instrumental, observable, and behavioral characteristics of the coparent relationship. The coparenting quality instrumental variable might be conceptualized as an instrumental, child-focused, coparental function that is motivated by desire or necessity, and that can represent the behavioral manifestation of past interpersonal relationships and experiences, which includes the past intimate relationship with the now-coparent.

**Summary.** The findings from hypothesized and unhypothesized associations prompted further analysis of the coparenting quality variable, the results of which revealed that coparenting quality was comprised of two factors in use with the current sample. Further analysis used coparenting quality instrumental and coparenting quality interpersonal in place of the original coparenting quality variable, which was removed from further analysis.

# Regression Analyses Assessing Impact of Predictors on Coparenting Quality and Child Problem Behaviors

Several demographic and divorce variables were included in the current study to control for their impact on the direct and indirect relationships among the predictor and outcomes variables. Demographic and divorce variables include child age, parent age, parent education, parent income, parent age, child age, parent gender, child gender, ethnicity, frequency of arguments between coparents, severity of hostility between coparents, the current custody arrangement, the child's primary residence, the respondent's satisfaction with the custody arrangement, and whether custody agreement process was conflictual or non-conflictual. Using SPSS, hierarchical regression analyses were computed regressing the predictor variables on each coparenting quality variable and two hierarchical regression analyses were computed regressing the predictors and each coparenting quality variables on youth problem behavior. The purpose of the regression models was to identify the unique associations between the demographic, divorce, and predictor variables and coparenting quality and child problem behavior. Through a series of regression models in which new variables were added at each step, hierarchical regression helped to explain whether a statistically significant amount of variance in each coparenting quality variable, as well as youth problem behavior, was accounted for by the demographic and predictor variables and to identify the unique associations distinct from the covariates. In the first two

models, the coparenting quality variables were regressed on the demographic variables in stage one, then on social support, anxiety, and self-efficacy in stage two, while in the second two models, youth problem behaviors were regressed on the demographic variables in stage one, then on social support, anxiety, self-efficacy, and each coparenting quality variable in stage two. By entering the demographic variables first, their influence on the outcome variable and predictor variables were able to be assessed independently.

To prepare the data for regression analysis, histograms were reviewed, which suggest normality. The scatterplot of the standardized residuals against the standardized predicted values was also reviewed, which revealed a non-patterned distribution of residuals indicating the requisite homoscedasticity. Given data normality and homoscedasticity, linearity was assumed. Lastly, the data was reviewed for multicollinearity using VIF values, all of which were below 10, indicating that the predictor variables were not intercorrelated.

## Regression Model Predicting Coparenting Quality Interpersonal

To understand the impact of predictor variables on coparenting quality interpersonal, a two-stage hierarchical regression model was conducted in which coparenting quality interpersonal was first regressed on the demographic variables in stage one, then on social support, anxiety, and self-efficacy in stage two. In stage one, demographic variables accounted for 46% of the variance in coparenting quality interpersonal and the model was significant F(14, 307)=5.99, p<.001. In stage two, social support, anxiety, and self-efficacy contributed an additional 2% of the variance in coparenting quality interpersonal, which was a significant change in  $R^2$ , and the model remained significant, F(17, 304)=5.53, p<.001. Variables that were significant predictors of coparenting quality interpersonal before the addition of self-efficacy, anxiety, and social support, remained significant after the addition, which were education,

custody arrangement, and type of custody process. In addition, with prior predictors variables remaining in the model, only social support was a significant contributor of the variation in coparenting quality interpersonal. The standardized and unstandardized regression coefficients, the standard errors, and the partial correlations for the regression model on coparenting quality interpersonal are presented in Table 8.

# Regression Model Predicting Coparenting Quality Instrumental

To understand the impact of predictor variables on coparenting quality instrumental, a two-stage hierarchical regression model was conducted in which coparenting quality instrumental was first regressed on the demographic variables in stage one, then on social support, anxiety, and self-efficacy in stage two. In stage one, demographic variables accounted for 29% of the variance in coparenting quality interpersonal and the model was significant F(14,307)=1.98, p<.05. In stage two, social support, anxiety, and self-efficacy contributed an additional 6% of the variance in coparenting quality interpersonal, which was a significant change in  $\mathbb{R}^2$  and the model remained significant, F(3, 304) = 3.02, p < .001. Before the inclusion of self-efficacy, anxiety, and social support, significant contributors to the variation in coparenting quality instrumental were education, and the type of custody arrangement. Following the addition of self-efficacy, anxiety, and social support, education was no longer a significant contributor of variance, while custody arrangement remained significant. Further, in stage two, significant contributors of variance included self-efficacy and social support, while anxiety was not significant. The standardized and unstandardized regression coefficients, the standard errors, and the partial correlations for the regression model on coparenting quality interpersonal are presented in Table 9.

Summary. Regression analysis indicated that several variables contributed a significant amount of variance in changes in both factors of coparenting quality. While education was significant for both coparenting quality interpersonal and coparenting quality instrumental, it lost significance after the inclusion self-efficacy, anxiety, and social support into the coparenting quality instrumental model. It was also notable that self-efficacy was not a contributor to the variance in coparenting quality interpersonal but was a significant contributor to coparental quality instrumental. Further, custody process was not a significant contributor to the coparenting quality instrumental model, but it was a significant contributor to the coparenting quality interpersonal model

Regression Model with Coparenting Quality Interpersonal as a Predictor of Child Behavior Problems

To understand the impact of coparenting quality interpersonal on child problem behaviors, a three-stage hierarchical regression model was conducted in which child problem behavior was first regressed on the demographic variables in stage one, then on social support, anxiety, and self-efficacy in stage two, and on coparenting quality interpersonal in stage three. In stage one, demographic variables accounted for 40% of the variance in child problem behaviors and the model was significant F(14, 307)=3.68, p<.001. In stage two, social support, anxiety, and self-efficacy contributed an additional 24% of the variance in child problem behavior, which was a significant change in  $R^2$  and the model remained significant, F(3, 304)=11.30, p<.001. In stage three, coparenting quality interpersonal contributed an additional 0% of the variance in child problem behavior and was not significant; however, the model remained significant, F(1, 303)=10.78, p<.001. Further, parental education and ethnicity both contributed significantly to the model as did whether the custody process was conflictual or non-conflictual and whether the

respondent was satisfied or dissatisfied with the final custody arrangement. The remaining predictor variables did not contribute a significant amount of variance to the model. The standardized and unstandardized regression coefficients, the standard errors, and the partial correlations for regression model with coparenting quality interpersonal as a predictor of child behavior problems are presented in Table 10.

# Regression Model with Coparenting Quality Instrumental as a Predictor of Child Behavior Problems

To understand the impact of the demographic variables and the second coparenting factor, coparenting quality instrumental, on child problem behavior, a three-stage hierarchical regression model was conducted in which child problem behavior was first regressed on the demographic variables in stage one, then on social support, anxiety, and self-efficacy in stage two, and on coparenting quality instrumental in stage three. In stage three, coparenting quality instrumental contributed an additional 7% of the variance in child problem behavior and was significant, and the model remained significant, F(1, 303)=11.23, p<.05. As in the first regression model, parental education and whether the respondent ethnicity both contributed significantly to the model as did whether the custody process was conflictual or non-conflictual and whether the respondent was satisfied or dissatisfied with the final custody arrangement. The standardized and unstandardized regression coefficients, the standard errors, and the partial correlations for the model are shown in Table 10.

**Summary.** While results indicate that coparenting quality interpersonal was not a significant predictor of child problem behavior, coparenting quality interpersonal will remain in the path analysis to assess potential indirect relationships between the predictors and coparenting quality. Aside from education, ethnicity, satisfaction with custody agreement, and the type of

custody decision making process, the demographic variables showed no value in predicting child problem behaviors. However, coparenting quality instrumental was shown to contribute a significant amount of variance in child problem behavior scores.

## **Path Analyses**

Because items in the original coparenting quality variable were apportioned between coparenting quality instrumental and coparenting quality interpersonal, two separate path analyses were identified and computed. Path analysis was used to extend the results of the regression analysis to establish whether the direct and indirect associations among the predictor and outcome variables are consistent with the hypothesized models. Using SPSS AMOS, the models were specified and computed using maximum likelihood estimation to represent the pathways on coparenting quality interpersonal and coparenting quality instrumental. Direct effect hypotheses were tested by examining unstandardized regression weights and their respective pvalues and unhypothesized relationships were examined using Pearson's correlation coefficients. To test the indirect effect hypotheses, separate mediation analyses were used to test the indirect effect of self-efficacy on the relationship between social support and coparenting quality interpersonal and coparenting quality instrumental, the indirect effect of anxiety on the relationship between social support and coparenting quality interpersonal and coparenting quality instrumental, the indirect effect of self-efficacy on the relationship between anxiety and coparenting quality interpersonal and coparenting quality instrumental, and the indirect effect of coparenting quality interpersonal and coparenting quality instrumental on the relationship between self-efficacy and child problem behavior. To address the variance shared by social support in the indirect pathways between anxiety and coparenting quality and self-efficacy and coparenting quality, the indirect effect of anxiety on coparenting quality was removed when

calculating the indirect of self-efficacy, and vice versa. While several variables predicted both coparenting quality interpersonal and instrumental, including whether the custody process was conflictual or non-conflictual and whether the respondent was satisfied or dissatisfied with the final custody arrangement, only ethnicity and education were retained in the path analyses. Ethnicity and education were included due to the breadth of literature supporting the impact of ethnicity and education on family processes (see Feinberg, 2003; McHale & Lindahl, 2011). Future research, however, should include additional variables including intrapersonal and interpersonal custody process variables.

Mathieu and Taylor (2006) suggested a decision tree framework to test the covariance relationships among the predictor variable, a potential mediating variable, and an outcome variable. Based on this framework, all three correlations among the three variables must be statistically significant. If one of these three correlations is not significant the authors argue that there would be no possibility of a significant mediation effect (Baron & Kenny, 1986; Mathieu & Taylor, 2006). Others have argued that a total effect of the predictor variable on the outcome variable should not be a prerequisite to searching for evidence of an indirect effect (Hayes, 2018). Given significant correlations among the predictor, outcome, and mediator, once the direct effect of the predictor on the outcome variable in the multiple regression is not statistically significant, then the mediating variable acts as a full mediator; otherwise, the mediation can be considered partial mediation. In absence of full or partial mediation, the relationships between the predictor and outcome variables are either direct, indirect, or with no relationship. The significance of the regression coefficients between the hypothesized constructs in the path analyses were examined to determine the occurrence of the mediation effects and the degree of mediation. The direct associations of social support with coparenting quality interpersonal,

anxiety with coparenting quality interpersonal, self-efficacy with child problem behavior, and anxiety with child problem behaviors were also examined.

In the path model pertaining to coparenting quality interpersonal, represented in Figure 3, ethnicity and education were both modelled as controls to anxiety, social support, self-efficacy, coparenting quality interpersonal, and child problem behaviors. A path was also tested from social support to child behavioral difficulties in the coparenting quality interpersonal model. The chi-square test of overall model fit is .239 with 1 degree of freedom and a p-value of .62. The Root Mean Square Error of Approximation (RMSEA) is .00, indicating good model fit (Hu & Bentler, 1999). The Comparative Fit Index (CFI) is 1.00, which is .90 or greater, indicating good model fit (Hu & Bentler, 1999). The  $R^2$  values for coparenting quality intrapsychic ( $R^2$  = .09) and youth problem behaviors ( $R^2$  = .34) indicate that 9 percent of the variation in coparenting quality intrapsychic and 34 percent of the variation in youth problem behaviors is explained by their predictors.

In the path model specified for coparenting quality instrumental, represented in Figure 4, ethnicity and education were both modelled as controls to anxiety, social support, self-efficacy, coparenting quality instrumental, and child problem behaviors. The chi-square test of overall model fit is 4.33 with 2 degrees of freedom and a p-value of .11. The Root Mean Square Error of Approximation (RMSEA) is .06, indicating acceptable model fit (Hu & Bentler, 1999). The Comparative Fit Index (CFI) is .99, which is .90 or greater, indicating good model fit (Hu & Bentler, 1999). The  $R^2$  values for Coparental Quality Instrumental ( $R^2 = 0.08$ ) and youth problem behaviors ( $R^2 = 0.34$ ) indicate that 8 percent of the variation in coparental quality instrumental and 34 percent of the variation in youth problem behaviors is explained by their predictors.

Coefficient parameter estimates for indirect effects of the predictor variables on the outcome variables through the mediating variables for both path models are shown in Table 12.

# Hypothesized Direct Associations

Parents with Higher Levels of Social Support will Report Higher Levels of Coparenting Quality.

Coparenting Quality Interpersonal. As shown in Table 12, the t-value and p-value for the pathway of social support predicting coparenting quality interpersonal were 2.80 and .00, respectively. Therefore, the hypothesis that higher social support will be associated with higher coparental quality interpersonal was supported.

Coparenting Quality Instrumental. As shown in Table 12, the t-value and p-value for the pathway of social support predicting coparenting quality instrumental were -2.92 and .00, respectively. Therefore, the hypothesis that higher social support will be associated with higher coparental quality instrumental was not supported due to reverse correlation.

Parents with Higher Levels of Anxiety will Report Lower Levels of Coparenting Quality.

Coparenting Quality Interpersonal. As shown in Table 12, the t-value and p-value for the pathway of anxiety predicting coparenting quality interpersonal were -1.00 and .32, respectively. Therefore, the hypothesis that increased anxiety will be associated with lower coparental quality interpersonal was not supported.

*Coparenting Quality Instrumental.* As shown in Table 12, the t-value and p-value for the pathway of anxiety predicting coparenting quality instrumental were -1.01 and .31, respectively.

Therefore, the hypothesis that increased anxiety will be associated with lower coparental quality instrumental was not supported.

Parents with Higher Levels of Anxiety will Report Higher Levels of Child Problem Behavior.

Coparenting Quality Interpersonal Model. As shown in Table 12, the t-value and p-value for the pathway of anxiety predicting child behavioral difficulties in the coparenting quality interpersonal model were 6.93 and .00, respectively. Therefore, the hypothesis that increased anxiety will be associated with increased child behavioral difficulty was supported.

Coparenting Quality Instrumental Model. As shown in Table 12, the t-value and p-value for the pathway of anxiety predicting child behavioral difficulties in the coparenting quality instrumental model were 6.80 and .00, respectively. Therefore, the hypothesis that increased anxiety will be associated with increased child behavioral difficulty was supported.

Parents with Higher Levels of Self-Efficacy will Report Lower Levels Child Problem Behaviors.

Coparenting Quality Interpersonal Model. As shown in Table 12, the t-value and p-value for the pathway of self-efficacy predicting child behavioral difficulties in the coparenting quality interpersonal model were -5.80 and .00, respectively. Therefore, the hypothesis that increased self-efficacy will be associated with decreased child problem behaviors was supported.

Coparenting Quality Instrumental Model. As shown in Table 12, the t-value and p-value for the pathway of self-efficacy predicting child behavioral difficulties in the coparenting quality instrumental model were -5.20 and .00, respectively. Therefore, hypothesis that parents with higher self-efficacy will report lower child problem behaviors was supported.

Parents with Higher Levels of Self-Efficacy will Report Improved Coparenting Quality.

Coparenting Quality Interpersonal. As shown in Table 12, the t-value and p-value for the pathway of self-efficacy predicting coparenting quality interpersonal were -1.26 and .21, respectively. Therefore, the hypothesis that increased self-efficacy will be associated with increased coparental quality interpersonal was not supported.

Coparenting Quality Instrumental. As shown in Table 12, the t-value and p-value for the pathway of self-efficacy predicting coparenting quality instrumental were 3.57 and .00, respectively. Therefore, the hypothesis that higher self-efficacy will be associated with increased coparental quality instrumental was supported.

#### Unhypothesized Direct Associations

The t-value and p-value for the pathway of coparenting quality instrumental predicting child behavioral difficulties were -2.01 and .04, respectively. The t-value and p-value for the pathway of coparenting quality interpersonal predicting child behavioral difficulties were .19 and .84, respectively.

The Coparenting Quality Factors have Mutual and Exclusive Associations with Divorce and Contextual Variables. Pearson correlations were reviewed for variables that were not included in regression modeling. While increased coparenting quality interpersonal is not significantly associated with respondent income, higher coparenting quality instrumental is associated with higher respondent income. More frequent coparental arguments are associated with both lower coparenting quality interpersonal and lower quality coparental quality instrumental. Joint custody, rather than sole custody, is associated with higher coparenting

quality interpersonal and with higher coparenting quality instrumental, while higher satisfaction with the custody arrangement is associated with higher coparenting quality interpersonal but has no significant association with coparenting quality instrumental. Lastly, a more conflictual custody process was associated with lower coparenting quality and lower coparenting quality instrumental.

# Mediation Hypotheses

Parenting Self-Efficacy will Mediate the Relationship between Social Support and Coparenting Quality.

To test the two hypotheses that self-efficacy, then anxiety, will independently mediate the relationship between social support and each coparenting quality variable, the path model needed to be developed in such a way that self-efficacy and anxiety were simultaneous mediators. By calculating the path model as specified, the relationship between social support and coparenting quality would include the simultaneous indirect effects of anxiety and self-efficacy, which was not desired. Therefore, additional calculations within SPSS were used to remove the undesired shared indirect effect. The following steps were taken to override the default SPSS calculations and to compute the independent indirect effects of anxiety and self-efficacy on the relationship between social support and coparenting quality (Amos Development Corporation, 2021):

- 1. The pathways were labelled between social support and anxiety (p1), anxiety and coparenting quality (p2), social support and coparenting quality (p3), social support and self-efficacy (p4), and self-efficacy and coparenting quality (p5).
- 2. The direct effect is represented by the coefficient on p3
- 3. The indirect effect was calculated by multiplying the coefficients on p1 and p2 (or p4 and p5)

- 4. The total effect was calculated by adding the coefficient on p3 to the product of coefficient p1 and coefficient p2 (or to the product of p4 and p5)
- The undesired indirect effect was controlled by subtracting the indirect effect from the total effect

Coparenting Quality Instrumental. As shown in Table 13, the result showed that there was a significant relationship between social support as predictor variable and coparenting quality instrumental as outcome variable, in the absence of self-efficacy as mediator. Therefore, the standardized total effect of social support on coparenting quality instrumental without the inclusion of self-efficacy as mediator was not statistically significant. This relationship remained insignificant after inclusion self-efficacy into the model. Therefore, the direct effect of social support on coparenting quality instrumental with the inclusion of self-efficacy as mediator was not statistically significant. The indirect effect of social support on coparenting quality instrumental through self-efficacy as mediator was not significant. The effect of social support as predictor variable on self-efficacy as mediator was not significant and the effect of self-efficacy as mediator on coparenting quality instrumental as outcome variable was significant. These results indicate that the hypothesis that self-efficacy mediates the relationship between social support and coparenting quality instrumental was not supported.

Coparenting Quality Interpersonal. As shown in Table 13, the result showed that there was a significant relationship between social support as predictor variable and coparenting quality interpersonal as outcome variable, in the absence of self-efficacy as mediator. Therefore, the standardized total effect of social support on coparenting quality interpersonal without the inclusion of coparenting quality interpersonal as mediator was not statistically significant. This relation was remained insignificant after the inclusion of self-efficacy into the model. Therefore,

the direct effect of social support on coparenting quality interpersonal with the inclusion of self-efficacy as mediator was statistically insignificant. The indirect effect of social support on coparenting quality interpersonal through self-efficacy as mediator was not significant. The effect of social support as predictor variable on self-efficacy as mediator was not significant and the effect of self-efficacy as mediator on coparenting quality interpersonal as outcome variable was not significant. These results indicate that the hypothesis that self-efficacy mediates the relationship between social support and coparenting quality interpersonal was not supported.

Anxiety will Mediate the Relationship Between Social Support and Coparenting Quality.

Coparenting Quality Instrumental. As shown in Table 13, the result showed that there was a significant relationship between social support as predictor variable and coparenting quality instrumental as outcome variable, in the absence of anxiety as mediator. Therefore, the standardized total effect of social support on coparenting quality instrumental without the inclusion of anxiety as mediator was statistically significant. This relation was still significant after the inclusion anxiety into the model. Therefore, the direct effect of social support on coparenting quality instrumental with the inclusion of self-efficacy as mediator was statistically significant. The indirect effect of social support on coparenting quality instrumental through anxiety as mediator was not significant. The effect of social support as predictor variable on anxiety as mediator was not significant and the effect of anxiety as mediator on coparenting quality instrumental as outcome variable was not significant. These results indicate that the hypothesis that anxiety mediates the relationship between social support and coparenting quality instrumental was not supported.

Coparenting Quality Interpersonal. As shown in Table 13, the result showed that there was a significant relationship between social support as predictor variable and coparenting quality interpersonal as outcome variable, in the absence of anxiety as mediator. Therefore, the standardized total effect of social support on coparenting quality interpersonal without the inclusion of anxiety as mediator was statistically significant. This relation was still significant after the inclusion anxiety into the model. Therefore, the direct effect of social support on coparenting quality interpersonal with the inclusion of self-efficacy as mediator was statistically significant. The indirect effect of social support on coparenting quality interpersonal through anxiety as mediator was not significant. The effect of social support as predictor variable on anxiety as mediator was not significant and the effect of anxiety as mediator on coparenting quality interpersonal as outcome variable was not significant. These results indicate that the hypothesis that anxiety mediates the relationship between social support and coparenting quality interpersonal was not supported.

Parenting Self-Efficacy will Mediate the Relationship between Anxiety and Coparenting Quality. To test the effect of self-efficacy on the relationship between anxiety and coparenting quality, the model required a path from anxiety to self-efficacy. However, the inclusion of that parameter resulted in an unidentified model for both the coparenting quality interpersonal and coparenting quality instrumental models.

Coparenting Quality will Mediate the Relationship between Self-Efficacy and Child Problem Behavior.

Coparenting Quality Instrumental. As shown in Table 13, the result showed that there was a significant relationship between self-efficacy as predictor variable and child problem behavior as outcome variable, in the absence of coparenting quality instrumental as mediator.

Therefore, the total effect of self-efficacy on child problem behavior without the inclusion of coparenting quality instrumental as mediator was statistically significant. This relation was still significant after inclusion coparenting quality interpersonal into the model. Therefore, the direct effect of self-efficacy on child problem behavior with the inclusion of coparenting quality instrumental as mediator was statistically significant at the .01 level. The indirect effect of self-efficacy on child problem behavior through coparenting quality instrumental as mediator was significant. The effect of self-efficacy as predictor variable on coparenting quality instrumental as mediator on child problem behavior as outcome variable was significant. These results indicate that coparenting quality instrumental partially mediates the relationship between self-efficacy and child problem behavior. Partial mediation is indicated because there continues to be an indirect effect of self-efficacy on child problem behavior even after controlling for coparenting quality instrumental.

Coparenting Quality Interpersonal. As shown in Table 13, the result showed that there was a significant relationship between self-efficacy as predictor variable and child problem behavior as outcome variable, in the absence of coparenting quality interpersonal as mediator. Therefore, the standardized total effect of self-efficacy on child problem behavior without the inclusion of coparenting quality interpersonal as mediator was statistically significant. This relation was still significant after inclusion coparenting quality interpersonal into the model. Therefore, the direct effect of self-efficacy on child problem behavior with the inclusion of coparenting quality interpersonal as mediator was statistically significant. The indirect effect of self-efficacy on child problem behavior through coparenting quality interpersonal as mediator was not significant. The effect of self-efficacy as predictor variable on coparenting quality

interpersonal as mediator was not significant and the effect of coparenting quality interpersonal as mediator on child problem behavior as outcome variable was not significant. These results indicate that coparenting quality interpersonal does not mediate the relationship between self-efficacy and child problem behavior. Therefore, the hypothesis that coparenting quality interpersonal will mediate the relationship between self-efficacy and child problem behavior was not supported.

#### **Summary**

In this research, statistical analysis was conducted in three major phases. The first phase involved a preliminary analysis of the data to ensure that the data met the statistical assumptions of regression and path analysis. The second phase applied hierarchical regression analysis using SPSS to better understand the unique impact of coparenting quality instrumental and coparenting quality interpersonal. The third phase used SPSS AMOS to test two path models of the direct and indirect effects of the predictor and outcome variables. Importantly, the study revealed that the coparenting quality variable measured two distinct coparenting factors in use with the current population and that these factors had distinct direct and indirect associations with predictor and outcome variables.

Tests of hypothesized direct associations indicate that parents who reported more social support also reported improved coparenting quality interpersonal but lower coparenting quality instrumental, while no significant relationship was found between parental anxiety and either factor of coparenting quality. In addition, results indicated that parents who reported higher levels of self-efficacy also reported higher levels of coparental quality instrumental, while no relationship was found between parental self-efficacy and coparenting quality interpersonal. As expected, parents with higher levels of self-efficacy, and lower levels of anxiety, reported lower

levels of child behavioral difficulties. Unhypothesized, but relevant, direct associations were also found. For example, while higher coparenting quality instrumental was positively associated with child behavioral difficulties, coparenting quality interpersonal was not associated with child outcomes. A meaningful indirect association was also found in that coparenting quality instrumental, but not coparenting quality interpersonal, was found to mediate the relationship between parental self-efficacy and child problem behavior.

#### Discussion

This research was undertaken to explore the direct and indirect relationships among coparenting behaviors, parental characteristics, and child outcomes in separated or divorced families with children aged 18 months to 5 years. Findings from a factor analysis reveal evidence that the Coparenting Relationship Scale (Feinberg, Brown, & Kan, 2012), in use with the current sample, can distinguish between interpersonal parental beliefs and coparental behaviors within the coparenting construct. The identification of factors expands on existing evidence that the coparenting construct is multidimensional and complex and is comprised of parental beliefs systems as well as the day-to-day instrumental behaviors of coparents. Further, findings indicate that these two factors have direct and indirect effects on the relationships among social support, anxiety, self-efficacy, and child problem behaviors.

The interpretation of study outcomes is consistent with Feinberg's ecological framework (2003), which distinguishes between interpersonal and intrapersonal coparental behaviors that have both direct and indirect effects on child outcomes and which link contextual variables to coparenting processes and child outcomes in families of divorce or separation. Further, Feinberg's model facilities an understanding of coparental interactions through a consideration of both parenting beliefs and coparental behavior. The distinction between interpersonal and

instrumental coparenting qualities is similar to the overt and covert dimensions proposed by Feinberg (2003) in that the overt dimension aligns with coparental transactions that are observable between coparents, while the covert dimension reflects cognitive appraisals of the coparental relationship that may then drive overt interactions. While not completely aligning with the covert and overt dimensions delineated by Feinberg (2003), the distinction between coparenting quality interpersonal and coparenting quality instrumental does speak to the importance of both intraparental and dyadic influences on coparenting quality and child outcomes.

The distinction between the interpersonal and instrumental domains of coparenting in the current study is also consistent with the distinction between the past intimate-partner relationship and the coparenting relationship (Belsky, 1979, 1981; Brody et al., 1986; Cowan & McHale, 1996; Easterbrooks & Emde, 1988; Emery, 1982; Floyd & Zmich, 1991; McHale, 1995). This distinction may help to operationalize the widely accepted idea that interparental conflict, rather than parental separation itself, explains much of the variance in the outcomes of children of divorce (see Emery, 1982; Grych & Fincham, 1990). For example, since spousal conflict does not end when the marriage ends, the finding that post-separation vestiges of inter-spousal negativity can exist alongside the healthy coparental behaviors that were captured in the coparenting quality instrumental variable can guide family clinicians to an essential entry point for coparental education and structural change in the family system.

Importantly, the distinction between the interpersonal and instrumental domains of coparenting may speak to the ongoing debate about whether coparental support and undermining are distinct concepts or whether coparenting behaviors can be measured on a continuum between the two extremes. Results from the current study suggest that coparental support and coparental

undermining are uniquely represented in the interpersonal and instrumental domains of coparenting, respectively, rather than on a continuum within one dimension.

## Social Support and the Coparenting Relationship

After separating the coparenting quality scale into the interpersonal and instrumental variants, social support became positively associated with coparenting quality interpersonal.

Since the coparenting quality interpersonal factor appears to reflect a complex interplay between the coparents' cognitive appraisals of the coparenting relationship, rather than the instrumental, behavioral, or logistical aspects of the relationship, this suggests that when parents in the current study experience more support from some combination of their coparent, friend, and other family members, they are more likely to appraise the coparenting relationship in a positive manner. This is consistent with the findings of Marroquin et al. (2019) that when social supporters model optimistic cognitions about future events and outcomes, it increased the likelihood that recipients of the support will anticipate the outcomes of future events in a positive manner.

The current study also found that social support is negatively associated with coparenting quality instrumental. While not consistent with much previous research (Belsky, 1984; Crockenberg, 1981; Teti et al., 1996), this finding might be explained in the context of post-divorce coparenting. As noted by Murphy et al. (2017), cooperative and competitive coparenting are independent constructs, meaning that a couple can be high in both cooperative and competitive parenting if both parents are highly involved in parenting decisions and are sometimes supportive of one another while at other times competitive. In fact, it is commonly accepted in the field of coparenting intervention that parents may engage with their coparent in pursuit of an improved context of coparenting but may be unable or unwilling to withhold negative comments about the other parent directly or in front of the kids or may actively

undermine the child's relationship with their other parent. It is possible that the Social Provisions Scale in the current study is capturing high coparental engagement, while the coparenting quality instrumental variable is capturing the behavioral manifestations of negative beliefs and perceptions about the other parent. Interestingly, the finding of a negative relationship between social support and coparenting quality instrumental is similar to the finding of Goldstein et al. (1996), that when prenatal mothers reported higher levels of social support from their parents, they were more likely to display insensitive parenting behaviors. The authors supported their finding with evidence suggesting that the negative features of social relationships may be more powerful than the positive impacts. For example, the authors suggest that social support that is exerted when it is not wanted or needed can lose important beneficial qualities. Because parents in the current study have only recently divorced or separated, it is possible the benefits of ongoing coparental instrumental support are offset by negative aspects of the coparenting relationship.

The findings from the current research may point to an important link between parental cognitions and coparental behaviors, because, as noted by Rubin et al. (2006, p. 83), "it is important that we know what parents think and believe . . . [because those thoughts are eventually] . . . retrieved and either acted upon or inhibited." The process of divorce and separation can entail the expression and management of challenging thoughts and emotions as parents strive to establish new working relationship as coparents. This is important because how parents appraise their relationships with their ex-partner, and now coparent, can impact future behaviors as parents and coparents (Bandura, 2001), and the effective management of emotions and appraisals can require high levels of persistence, patience, cognitive awareness, and an ability to regulate emotional reactivity. Bandura (1986; 1997) also suggested that individuals

with stronger beliefs in their ability to accomplish a task will be more likely to persist in the task. Therefore, it is possible that social support systems might help parents to develop or maintain optimistic or empowering cognitions about the coparental relationship which may help them engage and persist in coparental interactions while using fewer negative emotions and healthier critical thinking skills. For example, if a parent approaches a coparental interaction with a belief that their coparent is willing to make personal sacrifices to help care for their child, or that their coparent respects their opinion about parenting (which are both items from the coparenting quality interpersonal variable) it may be more likely that the parent would take a more collaborative, less defensive approach to the coparental interaction, which might elicit a more collaborative response by the coparent; this might be especially true if those cognitions are reinforced by a supportive social system. It is also possible that parents with higher self-efficacy will be more likely to persist in negative coparental interactions if they believe that their perspective or argument is correct, so that parents with negative perceptions of the coparent and low offsetting social support may be more likely to engage and persist in coparental arguments. In fact, parents with higher self-efficacy in the current study also report higher levels of coparental arguments.

#### **Individual Characteristics of Divorced Parents and Child Outcomes**

This study included parental anxiety and parental self-efficacy as intraparental characteristics of parents and as predictors of child problem behaviors in the context of post-separation coparental interactions. Findings reveal that parents who feel less effective in the parenting role also report higher levels of child problem behavior. Further, the findings indicate that when parents feel more effective in the parenting role, they report lower levels of anxiety.

#### Parental Anxiety and Children's Problem Behaviors

The finding that parents with higher levels of anxiety reported higher levels of child behavioral difficulties is consistent with existing evidence that parental anxiety is a risk factor for child well-being (e.g., McLeod et al., 2002; Le et al, 2017; Restifo & Bogels, 2009; Rueger et al., 2011), whether the source of the anxiety is historically-derived personality characteristics (see Le et al, 2017; Mulsow, 2002; Rueger et al., 2011; and Teti & Gelfand, 1991), the stressors of divorce and family separation (see Amato, 2000) or an interplay among multiple sources (Riina & McHale, 2012). For example, as noted by Riina and McHale (2012), parental anxiety can be triggered by the financial and emotional stress imposed by the process of divorce and separation. The current study also found that parents with lower income report higher levels of anxiety, which may compound or be compounded by the high cost of divorce litigation process.

There are several mechanisms through which the anxiety of parents in the current study might have contributed to behavioral difficulties in children. It is possible that the parents were experiencing symptoms of anxiety prior to the birth of their child and have manifested as parental fatigue, irritability, low frustration tolerance, high emotional and behavioral reactivity, and impaired focus and concentration in the parenting role (Adamo, 2014; Rueger et al., 2017), all of which are associated with adverse child outcomes (Bogels & Brechman-Toussaint, 2006; Le et al., 2017). Further, separated or divorced mothers have been shown to be at higher risk for symptoms of anxiety and depression due to various risk factors, including loss of social support, financial stressors, and childcare stressors (Afifi et al., 2006).

It is also possible that adverse child behaviors were the result of parental modelling of anxious behaviors (see Bogels & Brechman-Toussaint, 2006; Murray et al., 2009), through overcontrolling parenting behaviors, which are common in parents with higher levels of anxiety

(see Bruggen et al., 2008; Grolnick, 2003; McLeod et al., 2007), or through the reciprocal influence of any combination of these behaviors, all of which could be compounded by the stress of divorce and separation. Several authors have also suggested that parental anxiety can impact child problem behaviors through the mediating effect of coparenting behaviors (see Belsky, 1984; Belsky et al., 1995; Bogels & Brechman-Toussaint, 2006; Le et al., 2017; Murray et al., 2009). In the current study, however, parental anxiety was not directly associated with either the coparenting quality interpersonal or coparenting quality instrumental variables. However, the finding that parental anxiety is associated with child problem behaviors reinforces findings that parental cognitive and emotional characteristics are important for understanding the relationship between parenting, coparenting, and child outcomes (Fredriksen et al., 2018; Le et al., 2017; Murray et al., 2009). This may be especially true for populations who are at increased risk of emotional reactivity due to multiple concurrent divorce-related stressors, such as financial strain, social support adjustments, loss of contact with children, and potential coparent conflict. Importantly, the nature of the current research makes direction of effects undetectable and there may be bidirectional processes at play. In addition, parental anxiety is not likely to influence the many domains of child outcomes in the same way. For instance, while parental anxiety may directly or indirectly impact child academic outcomes, it may not influence child social development in every family due to the impact of distinct protective factors.

#### Parental Self-Efficacy and Children's Problem Behaviors

Evidence from the current study reveals that higher levels of parental perceived selfefficacy are associated with fewer reports of child behavior problems. This finding is again consistent with the existing literature on parenting and child outcomes, in which there is evidence that parents who feel less effective in the parenting role are more likely to display parenting behaviors that are associated with adverse child outcomes, such as disengagement from challenging parenting tasks, and insensitive, impatient, and rigid parenting behaviors (Albanese, Russo, & Geller, 2019; Johnston, Park, & Miller, 2018; Teti et al., 1996). While the literature on parenting and child outcomes is replete with efforts to understand the impact of parental self-efficacy on child development, the current study reinforces current findings while using a more detailed sample of separated parents of young children who may be experiencing more recent and higher numbers of financial, emotional, social, or parental or coparental stressors which can challenge their perceptions of efficacy.

Given the adverse impact of low self-efficacy on parenting behaviors and child outcomes, it is important to understand how self-efficacy develops in parents within a variety of populations. For example, research consistently points to the role of environmental stress and anxiety in the development of self-efficacy (see Albanese et al., 2019; de Haan et al., 2009; Sanders & Wooley, 2005). Since parental cognitive processes, such as a belief in their capacity to address arising challenges, are important contributors to a self-efficacy (Albanese et al., 2019), it makes sense that anxiety would be associated with self-efficacy since a hallmark symptom of anxiety is an over-identification of insurmountable challenges. Evidence from the current study might also suggest that the relationship between anxiety and parental self-efficacy may be exacerbated in the context of divorce-related legal processes when parents might be reeling from the financial impact of divorce litigation. For example, results show that when parents report lower income, they report higher levels of anxiety, and anxiety predicted lower levels of selfefficacy. Similarly, Brody et al. (1999) found that when mothers believed that their financial resources were not adequate, they felt less effective in the parenting role. The finding from the current study that lower income predicted higher anxiety and that higher anxiety predicted lower

self-efficacy warrants efforts to better understand the direct and indirect effects, as well as the directionality of effects, among anxiety, self-efficacy, and financial security in the context of divorce.

#### **Complex Process Models of Parenting in Separated Parents**

The distinction in the current study between coparenting quality interpersonal and coparenting quality instrumental reflects the complex relationships among attributes of the coparenting relationship, social support systems, self-efficacy, anxiety, and child problem behaviors. This finding of distinct coparenting factors in the current study is important because, consistent with social cognitive theory (Bandura, 1977, 1986, 1989, 1997), there is a need in the field of coparenting to better understand not only observable interactions between coparents and the consequences of those actions, but how the interplay between coparental perceptions influence the behaviors of coparents, their children, and their social support system.

A central thesis of the current research is that parental self-efficacy, anxiety, and social support will have direct and indirect effects on coparental quality. While existing research has established that self-efficacy can be predicted by the direct and indirect effects of both social support (see Feinberg, 2003 and Jones & Prinz, 2005; Tazouti & Jarlegan, 2019) and anxiety (see Johnston, Park, & Miller, 2018 and Teti et al., 1986), the current study did not find a significant relationship between social support and self-efficacy or between social support and anxiety. This finding is also not consistent with Bandura's theory of self-efficacy (Bandura 1977), which anchors much of the current research on the development of self-efficacy, and which helps to explain how supportive family members and coparents may act in the parenting role by vicariously teaching alternative parenting options thereby increasing a sense of parental self-efficacy and decreasing anxiety (e.g., Cutrona & Troutman, 1986).

The lack of associations between social support, anxiety, and self-efficacy in the current research might be explained by a deeper understanding of situational dynamics of post-divorce coparenting. For example, divorce and separation can establish a context in which social support systems, including mutual friendship-circles, in-laws or family members of the ex-partner, and even the coparent themselves, can begin to offer inconsistent support, may become unavailable entirely, or may act in ways that discourage personal and coparental wellbeing (Cutrona & Troutman, 1986). Further, given that a cohabitating coparent is often a primary and significant source of parenting self-efficacy (see Belsky, 1984; Crockenberg, 1981; Cutrona & Troutman, 1986; and Teti et al., 1996), should the coparent become a source of conflict rather than support during the process of separation there could be a significant impact on perceptions of parenting self-efficacy. As further noted by Cutrona (1996) other forms of social support have been shown to be unable to offset the negative impacts that might arise from the loss of spousal or coparental support. Therefore, while supportive friends and family members may buffer post-separation risk factors, the loss of the more salient coparental support may dampen, or even negate, the protective factors of social support. Interestingly, when the coparenting quality interpersonal and coparenting quality instrumental variables were discerned, new relationships emerged among social support, anxiety, self-efficacy, and child problem behaviors that might lend support to a process in which social support and coparental support influence two distinct qualities of the coparenting relationship. This alternative understanding of child problem behaviors in the context of divorce and separation would have implications for new directions in post-divorce coparenting research.

# Instrumental Coparenting Mediates the Relationship between Self-Efficacy and Child Problem Behaviors

In the current study, coparenting quality instrumental was found to mediate the relationship between parental self-efficacy and child problem behaviors, indicating that the relationship between parental self-efficacy and child problem behaviors was partly explained by characteristics of the coparenting relationship that reflect more observable, instrumental, and action-oriented qualities. That is, as parenting efficacy increases, so does the reported instrumental coparenting, which in turn leads to decreased behavior problems in children, even after accounting for anxiety, social support, and both education and ethnicity. The finding that the relationship between self-efficacy and child problem behaviors was partly explained by coparenting quality instrumental but not coparenting quality interpersonal may speak to an important distinction between the interpersonal, cognitive appraisal aspects of the coparental relationship and the instrumental, behavioral aspects. The distinction between these two domains of coparenting might be explained in the context of divorce and separation, in which social support, self-efficacy, anxiety, and child problem may interact through an interplay between cognition, emotion, and behavior.

For instance, Feinberg (2003) and McHale (1995) assert that the coparental relationship and intimate relationship are separate and distinct subsystems within families. For example, there is existing evidence that coparenting quality may serve as a mediator between marital conflict and parenting behaviors (Fincham & Hall, 2005; Floyd, Gilliom, & Costigan, 1998; Margolin, Gordis, & John, 2001), which further suggests that the marital relationship and coparental relationship have distinct antecedents and consequences in the pathway to child problem behavior.

### Higher Self-Efficacy is Associated with Higher Coparenting Quality Instrumental.

While parental self-efficacy has been shown to play a significant role in the relationships among parental beliefs, parenting behaviors and child outcomes, there remains a need to specify the role of self-efficacy as a predictor, consequent, mediator, and moderator within the complex pathways predicting the outcomes of children of divorce or separation (Albanese & Russo, 2019; Benedetto & Ingrassia, 2018). Results from the current study indicate that within the mediational pathway between self-efficacy and child problem behaviors, parents who report higher levels of self-efficacy also report higher levels of coparenting quality instrumental. This finding is important because it suggests a mechanism linking parental self-efficacy to child behavioral outcomes. More specifically, the findings suggest that parental self-efficacy indirectly impacts child outcomes by influencing the instrumental, day-to-day coparenting behaviors. This is important in the context of parental separation since parents with higher self-efficacy are more likely to initiate and persist in challenging tasks (Bandura, 1989; Jones & Prinz, 2005), such as those associated with post-divorce coparenting, and are more likely to recruit others, such as coparents, to assist in completing those tasks and are less likely to engage in undermining coparenting behaviors (Merrifield & Gamble, 2012). In addition, there is evidence that parental self-efficacy is associated with less parenting stress (Harmon & Perry, 2011; Pettit, 2020), which is relevant to couples of divorce and separation, when the potential for stressful coparental conflict is high and multiple contextual stressors are present. It is possible, even likely, that the relationship between parental self-efficacy and coparenting quality instrumental are bidirectionally associated and possible that parenting stress moderates that relationship.

High-conflict coparents are more likely to have intra- and interpersonal characteristics that serve to maintain conflict over time, such as low introspection, overly focused on self-needs,

and to have difficulty recognizing their role in the coparental conflict. The finding that parents with high self-efficacy are more likely to engage in the instrumental aspects of the coparenting relationship, might suggest that intervention programs for high-conflict place focus on the development and maintenance of parental self-efficacy.

#### **Summary of Findings**

The context of divorce and separation play a significant role in interpreting results from the current study. While divorced parents are no longer engaged in the romantic or intimate aspects of their relationship, they remain necessarily connected as parents of their mutual child. As noted earlier, however, coparenting dynamics are influenced by the cognitive vestiges of the intimate and emotional relationship with the now-coparent and by the current social, political, and socioeconomic ecology in which the parents live today (Feinberg, 2003), rendering the post-divorce coparenting relationship a medium through which the prior intimate relationship dynamics can spillover into parenting practices, as suggested by Erel and Burman (1995) and Krishnakumar and Buehler (2000). In this, it is possible that the coparenting quality interpersonal variable houses those "cognitive vestiges" of the intimate relationship, and that associated negative cognitions could lead to adverse coparenting behaviors following divorce. It is also possible that social support systems could help to develop or maintain more positive cognitions and emotions regarding the past relationship.

Similarly, it is possible that the coparenting quality instrumental variable represents, at least in part, the manifestation of pre-separation cognitive and emotional processes that become necessitated by the demands of child behavior or mandates of the family court system. These behaviors and cognitive process may then affect and be affected by self-efficacy cognitions. For example, parents who have negative perceptions of the coparent and the coparenting relationship

may be more inclined to argue, especially if the parent has high self-efficacy and feels that arguing will serve to realign the current situation with the parent's expectations. This increase in arguments may then lead to increased coparental interactions, a side effect of which might undermining, disparaging, or competitive coparental behaviors that are shown to increase child behavioral difficulties.

# **Strengths and Limitations**

The current study reinforced existing evidence regarding the relationships among coparenting quality, social support, self-efficacy, parental anxiety, and child problem behaviors in families of divorce and separation. The study also revealed new evidence linking parental beliefs with coparental behaviors. Several limitations and strengths are noted. First, because the research design is correlational in nature it is not possible to causally connect the influence of one variable to the outcome of another, nor can it establish direction of effects. For example, while the study indicates that as coparental arguments increase coparental quality instrumental decreases, one can only hypothesize about whether coparental arguments make the coparental relationship more problematic, or whether a problematic coparental relationship increase the chances of coparental arguments. This is the case even in the path model in which linking selfefficacy to child problem behaviors through coparenting quality instrumental and in which directionality is hypothesized but not established causally. While the establishment of causal relationships continues to challenge studies of human behavior, the increased use of longitudinal and experimental research designs can have a significant impact on the coparenting field by capturing causal relationships that could guide family intervention and policy.

A second limitation of the current study is related to shared method bias. By nature of the drawn sample, respondents in this may still be experiencing heightened emotions surrounding

the recent process of divorce or separation, including financial stressors, child custody issues, loss of social supports, loss of support from the spouse, and changes in residence; and the negative emotions associated with these stressors can easily be attributed to actions of the exspouse. Since respondents are answering self-report questions that ask them to "rate" characteristics of their ex-partner or characteristics of the coparenting relationship, it is possible that responses carry an overly represented negative valance. This study could be strengthened using observations of coparental behaviors or by having objective observers of the parents and coparenting relationship complete the questionnaire.

A third limitation is the limited number of explanatory variables in the path model. While ethnicity and education have important impacts on coparenting characteristics (see Crosbie-Burnett & Lewis, 1999; Riina & McHale, 2012; Stright and Bales, 2003; Van Prooijen, 2017), other variables, such as income, gender, and age have also been shown to explain the relationship between coparenting behavior and child outcomes. While several important explanatory variables were collected and considered in bivariate relationships among variables, the effective incorporation of these variables into more complex models of coparenting predictors and outcomes would have provided stronger explanatory power in this study. In this study, the regression models were used to reduce the potential for third-variable bias, but it would also be beneficial to include more substantial contextual information (i.e., more demographic and divorce-related variables) in the path models in order to elucidate the complex processes underlying coparenting. This also speaks to a fourth limitation of this study. While the sample size was appropriate for the number of variables in this study, a larger sample size may have helped to define a path model that was able to incorporate a larger number of explanatory variables.

Fifth, the over-representation of females (62%) in the current study is not representative of the United States population (51%; U.S. Census Bureau Quickfacts: United States, 2021). While a skewed gender distribution of parents in research on parenting and child outcomes is common (e.g., Brown et al., 2020; Chau & Giallo, 2015; Glatz & Buchanan, 2015; Latham, Mark, & Oliver, 2018), the impact of gender in the coparenting dynamic can be significant (e.g., Braungart-Rieker et al., 1999; Gable et al., 1995; Van Egeren, 2003). This study would benefit from a more even gender distribution of participants. Relatedly, while the distribution of ethnicities in the current study closely reflects that of the United States population (For example, 82% of the respondents in the current study are White, while 12% are African American, compared to the United States population in which 77% are White and 13% are African American; U.S. Census Bureau Quickfacts: United States, 2021), as indicated in Table 1, the sample size of 322 in the current study means that only 38 participants were African American. This makes statistical analysis of the effect of arguments on coparental quality in the Black population less powerful due to a small representative sample. The low subsample of African American participants compromises generalizability of the results of this study, which is unfortunate given the role of ethnicity and race in the associations between coparenting and child outcomes (see McHale, 2011). In addition, this study found that satisfaction with custody agreement and the type of custody decision making process both has significant associations with child outcomes. While the inclusion of additional variables into the current study posed risks to power of the study as well as challenges with model fit, this and future studies would benefit from the inclusion of these variables in effort to understand the relationship between parental characteristics, coparenting quality, and child outcomes. An additional limitation is that data was collected using online surveys inherently rules out individuals who do not have reliable

internet access. Unfortunately, attaining a large random sample with a high response rate using a data collection approach that is capable to reaching a national representative sample can be costly and time prohibitive.

In addition, the current study lacks generalizability to diverse family groups. While the current study lacked the statistical power, due to a lower sample size, to incorporate diverse populations, there is a great need in the empirical literature to better understand the distinct dynamics of the LGBTQ population (Stern, Oehme, & Stern, 2016) and blended families headed by same-sex and heterosexual couples (Kumar, 2017). This is important not only given the distinct dynamics of same-sex coparenting, but because legal decision-making systems rely, in part, on evidence to support decision making in the context of adoption and child-custody determinations. While legal systems in the United States have passed legislation enabling the marriage of same-sex couples, there remains a stigma associated with same-sex parenting and same sex marriage. For example, individuals in the LGBTQ population continue to lack equal child custody opportunities (Williams, 2018). Further, same-sex couples may be at increased risk of low social support due to ongoing stigma associated with membership in the LGBTQ population (Sumontha et al., 2016). Similarly, this study would be strengthened by including pathways and dynamics linking the unique coparenting processes within blended family hierarchies and child outcomes.

A potential limitation of the current study is the low reliability estimate for items in the Parenting Sense of Competence Scale (PSOC). This low reliability might be explained by the fact that the PSOC has been shown across studies to discern two to four factors (Johnston & Mash, 1989; Ohan et al., 2000; Rogers & Matthews, 2004), including satisfaction, efficacy, and interest. Rogers and Matthews (2004) suggest that interest reflects parental engagement in the

parenting role, similar to the function of coparenting quality instrumental in the current study, while Ohan et al. (2000) and Johnston and Mash (1989) suggest that satisfaction reflects parental anxiety, motivation, and frustration, similar to coparenting quality interpersonal. In the current study, self-efficacy has a distinct positive association with coparenting quality instrumental (akin to interest) but is not associated with coparenting quality interpersonal (akin to satisfaction). That is, while an item from the satisfaction factor of the PSOC might indicate that parent is not satisfied in the parenting role (e.g., "I do not know why it is, but sometimes when I'm supposed to be in control, I feel more like the one being manipulated"), the respondent may heavily weight their response based on interpersonal qualities of the coparenting relationship, creating a high score on the interest/instrumental factor of the PSOC but a lower score on the satisfaction/interpersonal factor. Therefore, those parents who are highly engaged in coparenting but maintain an undercurrent of coparental dissatisfaction may score the PSOC differently than those parents who are both disengaged and dissatisfied or engaged and satisfied.

It is also possible that the low Cronbach's alpha is due to a relatively small number of items in the PSOC or that the scale is simply not capturing a sufficient breadth of self-efficacy indicators in the current sample Future use of the PSOC using a similar sample would benefit from a factor analysis to better understand the interplay between dimensions of self-efficacy, the number of scale items and potential for removal of items, and the sample to which the scale is administered.

This study also has several strengths that support a meaningful contribution to literature on post-divorce coparenting and child outcomes. First, as social science strives for the identification of casual relationships, the field relies on correlational research to identify variables that will become candidates for the more expensive and time-consuming experimental

designs. The current study contributes to the literature by further extending the known associations between coparenting and child outcomes while identifying important correlations with what may be distinct domains of the coparenting relationship. Second, this study measured variables using a variety of protocols that have been empirically established to measure social support, parental anxiety, parental self-efficacy, coparental quality, and child problem behaviors.

Third, by identifying a relationship between self-efficacy, coparental arguments, and a domain of the coparenting construct that targets instrumental functions of parenting (coparental quality instrumental), this study helps to move the field of coparenting closer to understanding which post-divorce coparenting behaviors most impact child and family outcomes. Further, the literature has established the likelihood that coparenting is a multi-domanial construct (see Feinberg, 2003; Lamela et al., 2016; McHale et al., 2000), and this study contributes to the literature by identifying domains of coparenting that might link the interpersonal relationship between coparents with functional, day-to-day coparental behaviors. The identification of the coparenting quality interpersonal and coparenting quality instrumental constructs strengthens the literature on post-divorce coparenting by operationalizing pre- and post-separation coparental cognitive processes; and it is important that we know what parents think and believe because, as noted by Rubin et al. (2006; p. 83), "... those thoughts serve as parent-cognition 'mega-bytes' that are eventually, in some way, retrieved and either acted upon or inhibited." Since coparenting dynamics are rife with covert and overt processes, such as undermining, triangulation, and disparagement, it is important that we understand the pre- and post-divorce vestiges of thought and emotion that are driving these behaviors.

A fourth strength of this research lies in the applicability and relevance of two existing theoretical perspectives to frame the research questions and to explain the results. This is

important because theoretical consistency ties past research findings to present and future research efforts (Cheal, 1991; Chijioke, Ikechukwu, & Aloysius, 2020). The results are interpretable using the ecological framework of Feinberg (2003) and the self-efficacy theory of Bandura (1997) both of which provide a basis for understanding how parenting beliefs and cognitions indirectly impact child outcomes through parenting and coparenting behaviors.

A fifth strength of this study is in the use of three analytic approaches to explore and reinforce findings. This study used simple bivariate correlations to understand relationships among variables which established a basis for the replication of results through the subsequent use of hierarchical regression analysis and path analysis. The replication of results through both regression analysis and path modeling adds robustness and confidence to the findings. While the use of more complex data analytic approaches, such as structural equation modeling, is often indicated and beneficial, the current research design benefited from the use a less complex and effective approach to data analysis. Using the most appropriate data analytic approach avoids the need for costly data analysis software, minimizes the time needed to prepare and analyze the data, and makes it easier to present and explain the results to a broad audience.

#### **Implications for Policy and Intervention**

Family court systems in the United States have begun to shift custody decision making to favor joint physical custody arrangements (Schramm & Becher, 2020) that encourage equitable parenting time by both parents. With the vast and growing body of research and literature on post-separation coparenting pointing to the importance of coparental cooperation to enhance children's post-divorce and post-separation adjustment (McHale et al., 2019), this shift has required parents to effectively navigate the emotional and instrumental aspects of the coparenting relationship. Since marriages are most discordant during infancy and early childhood (Davies &

Cummings, 1994), a time when children are establishing a sense of security in their environment and a sense of trust in their parents' ability and willingness to meet their emotional and physical needs (Solmeyer et al., 2013), it is essential that we understand the processes contributing to hostile, undermining, and disagreeable coparenting behaviors that are shown to undermine a child's sense of security (Auersperg et al., 2019; Davies & Cummings, 1994; McHale, 2007; McHale et al., 2019; Petren et al., 2017). To design and implement effective prevention program, we must understand the factors contributing to the emotional and behavioral difficulties that have been shown to result from maladaptive marital, post-marital, coparenting, and parenting processes.

While translating research findings to practice is not always easy, family researchers and practitioners must continue to work toward collaborative efforts to operationalize empirical findings through programs aimed at promoting parenting and coparenting behaviors maximize child outcomes in the face of adversity. As noted by Nunes et al. (2021), treatment programs that target post-divorce coparenting dynamics, versus those that target only one parent, are more likely to promote supportive parenting behaviors by providing a context in which past and current intra- and inter-parental beliefs and behaviors can be challenged or reinforced. As in cases of exclusive legal representation in the divorce process, parents who work with separate therapists to assist in the divorce transition can inadvertently encourage a competitive coparental mindset, can result in contradictory messaging, and, when children become involved, can confound the sense of security that children experience when parents display a desire to work in solidarity toward improved family functioning. The literature on coparent interventions for divorced families points diverse approaches, including psychoeducation on coparenting and the importance of parental engagement and support of children; skills training in coparenting,

communication, parenting, or problem-solving; the development and maintenance of parenting plans that organize parenting tasks and responsibilities; and group discussions on parenting dynamics and resources (Nunes, 2021).

The current study holds implications for treatment and prevention programs for families of divorce and separation. For example, by finding that increased social support following divorce or separation might contribute to more positive cognitive appraisals of the coparental relationship and to decreased coparental arguments, then helping post-divorce parents to establish healthy a social support system might indirectly protect children from problematic coparental interactions. In this, there may be value in educational programs designed to educate essential support figures, such as parents and grandparents, on the aspects of social support that might benefit children indirectly through the coparenting dynamic. Further, by knowing that negative emotion in parents with high levels of self-efficacy might lead to increased coparental arguments, then helping those parents to develop effective problem-solving skills might help them remain assertive in efforts to establish effective coparenting practices while minimizing coparental arguments that have detrimental impacts on children.

An additional opportunity to operationalize the results of the current study is through increased utilization of parenting coordination programs and intervention efforts. Parenting coordination is a form of family mediation in which a trained professional in family and marital counseling engages with high-conflict parents of divorce or separation with the goal of establishing and enforcing coparenting practices and parenting plans that focus exclusively on the best interests of children (Carter & Frenkel, 2020). Due to the specialized knowledge needed to effectively intervene in such families, Parenting Coordination programs are prime opportunities to apply evidence-based practices procured from the literature on post-divorce

coparenting and child outcomes. For example, given the findings from previous studies that joint custody arrangements are related to less coparental hostility than sole custody arrangements (Arditti & Madden-Derdich, 1997; Bay & Braver, 1999; Madden-Derdich & Arditti, 1999), it would make sense to involve a professional who can help mediate challenging discussions that might assist in compromise around child custody decisions.

Policy Considerations. While the field of family law has benefited in recent years from efforts to integrate social science research into legal decisions that impact children and families (AFCC Task Force on the Guidelines for the Use of Social Science & Misca, 2019), there remains perceptions among family law professionals that social science research can offer inconsistent findings, can be difficult to interpret, and that there is insufficient quality and quantity to support legal decision-making around issues such as parenting time and the effects of relocation on children and family. In the context of high-conflict coparents, family legal professionals are often significant contributors to decisions that impact the well-being of children and families, so it is essential that the research on post-divorce coparenting be translated and delivered to attorneys, judges, and law guardians in a way that maximizes their ability to make evidence-based decisions and recommendations.

While the results from the current study might inform decision making by family law professionals, the correlational nature of the study better lends itself to informing and guiding future research that established intervention effectiveness and causal relationships that would then guide policy and legal decision making. For example, should future research replicate and operationalize the finding that higher levels of parental self-efficacy can increase the quality of the instrumental, day-to-day aspects of coparenting in high-risk families, family law professionals might be more inclined to recommend a targeted intervention.

An additional impact of the current research on family legal processes is in the context of current debates about the benefits of shared parenting arrangements (such as joint legal custody) and sole parenting arrangements (Kruk, 2018). The arguments against shared parenting cite the effects of multiple household transitions, varying parenting styles, and lifestyle inconsistency on children's sense of insecurity; arguments against sole custody arrangements cite the strength and importance of promoting attachment to both parent figures, the resilience children can display through adversity, and the benefits of exposure to diverse lifestyles in two homes including access to extended family support systems. The finding from the current study that child outcomes were impacted directly by the day-to-day instrumental functions of the coparenting relationship, rather than the interpersonal or cognition-based aspects of the coparenting relationship, might inform this debate by reminding policy makers that when protective factors promote the establishment of functional, instrumental coparenting practices, children can benefit from both shared parenting arrangements and the sense of security that might arise from the instrumental qualities of the coparenting relationship.

The use of state-of-the-science statistical approaches and research methodologies has informed our increasingly complex understanding of post-divorce family process, opening the door to unprecedented opportunities for evidence-based intervention that directly benefits children and families of divorce and separation while informing decision-making practices of family law professionals. While the complexities of family and social systems challenge the efforts of family scientists and practitioners to broadly generalize evidence-based interventions, such efforts can inform targeted interventions that reflect the diversity of family characteristics and processes inherent in daily practice. For example, the results of the current research might suggest that, in efforts to maximize the outcomes of children of separation, intervention to target

low parental self-efficacy might help to improve essential instrumental qualities of the coparental relationship, which could indirectly impact child outcomes.

#### **Future Directions**

Findings from the current study speak to several directions for future research. First, while the relationships between anxiety, social support, coparenting quality, self-efficacy, and child problem behaviors in the current study are likely bidirectional, the current research design renders the direction of effects between and among the variables indetectable. Understanding direction of effects is an important step in designing targeted interventions that help families maximize protective functions following divorce or separation. In addition, the relationships between variables in the current study have already been shown to be complex (see Albanese, Russo, & Geller, 2018; Jones & Prinz, 2005), and an understanding of the relationships would be strengthened by a deeper understanding of both the direct and indirect effects. For example, while the results of the current study associate parental anxiety with child behavioral difficulties, it is unknown whether anxiety is manifests through the modeling of anxious behavior, maladaptive cognitive processes, or problematic parenting behaviors. It is also possible that parental self-efficacy mediates that relationship, since anxious parents are more likely to experience decreased self-efficacy in the parenting role, which can lead to child behavioral difficulties through parenting practices. Given the complexity of direct and indirect associations among determinants of child outcomes, it is also important that more explanatory variables be included in future path models. For example, the current study found that higher parental satisfaction with the child custody arrangement predicted more youth problem behaviors. As discussed above, while this positive association may seem counterintuitive, future research might help to explain this relationship in the unique context of complex post-separation dynamics.

Second, while the study of parental beliefs has been active for only slightly longer than the study of post-divorce coparenting (see Rubin & Chung, 2006), the latter continues to struggle to integrate parental and coparental beliefs and cognitions into empirical efforts to understand coparenting dynamics. Replication of finding that the Coparenting Relationship Scale (Feinberg, 2012) might be capable of discerning interpersonal parenting beliefs from instrumental coparental behaviors could be an important step toward operationalizing coparental beliefs in processes linking coparenting behaviors and child outcomes. Because the instrumental aspects of the coparental relationship (operationalized by the coparenting quality instrumental variable in the current study) may play an especially significant role in the relationship between coparental arguments, parental self-efficacy, and child problem behaviors, future research efforts to discern the distinct effects of those characteristics on child outcomes may be a fruitful avenue for future research.

Third, the results from the current research suggest that social support might impact parenting beliefs and cognitions about future coparental interactions, which might then drive future instrumental coparenting behaviors. This finding also points to possible indirect effects of coparental arguments and parental cognitions in the relationship between parental self-efficacy and the instrumental qualities of the coparental relationship. Again, testing these relationships using structural models would contribute to efforts to understand the complex relationships between parental cognitive and emotional characteristics, coparental interactions, and child outcomes. Importantly, these relationships need to be evaluated using a sample that is more representative of the population of American parents as well as multi-cultural populations. This is important since parenting cognitions and belief systems are impacted by culture (Ashdown & Faherty, 2020; Harkness & Super, 2002; Mulvaney & Morrissey, 2012).

Fourth, there is a need in the field of coparenting literature to establish causal mechanisms linking parental and coparental characteristics with child outcomes. By implementing longitudinal designs, especially designs that follow the same sample, it becomes possible to assess changes in individual and family characteristics before and after significant life events or treatment interventions. Further, longitudinal studies that assess both intact and separated families would further discern the causal impact of distinct life events and circumstances.

Fifth, given the impact of stressful life events on coparenting and parenting behaviors, it is important that future research integrate contemporary stressors into efforts to understand complex coparental dynamics. For example, the impact of cumulative stress on parenting behaviors is an important consideration amidst the current COVID-19 crisis, as parents are experiencing economic insecurity, loss of social support, health-related concerns, and challenges related to working from home while caring for children who are schooling from home (Prime et al., 2020). In fact, researchers have found that increased parental stress is associated with harsher, less responsive parenting and poorer quality of parent-child interactions (Crnic et al., 2005; Neppl et al., 2016), and COVID-19 stressors have been associated with increased stress in American parents and with increased harsh parenting behaviors (Chung, Lanier, & Ju, 2020). Finally, future efforts to understand the relationship between interpersonal and instrumental qualities of the coparental relationship and child outcomes should include factors that might moderate significant relationships. For example, race, class, gender, culture, sexual orientation, and age have been shown to impact coparental dynamics and child outcomes (McHale, 2019) and should be included in efforts to understand post-divorce coparenting dynamics. For example, given the differential impact of same-sex coparenting, verses heterosexual coparenting, on child

outcomes and coparental quality, it is essential that future research over-sample for underrepresented groups, including same-sex coparents. Similarly, the complexities of post-separation
coparenting may be compounded and unique within blended family dynamics (Kumar, 2017).

For example, couples who are remarried must manage the coparenting structure within the
blended family itself while effectively managing the coparenting relationship with an ex-partner.

The field of coparenting would benefit from an increased focus on the unique coparenting
processes within blended family structures.

Ultimately, the experiences of individuals, couples, and families of divorce or separation will best be captured by understanding and controlling for the complex interactions among diverse cultures, ethnicities, genders, and sexualities.

# **Tables**

Table 1  $Descriptive \ Statistics \ for \ Demographic \ Variables \ (N=322)$ 

		Mean	SD	Percent
Child Age		3	1	-
Parent Age		32	8	-
Relation to Child	Father			35%
	Mother			59%
	Grandparent			2%
	Stepparent			3%
	Other			1%
Race	American Indian or Alaska Native			2%
	Asian			3%
	Black or African American			12%
	Native Hawaiian or Other Pacific Islander			1%
	White			82%
Parent Gender	Female			62%
	Male			37%
	Prefer not to say			1%
Coparent Gender	Female			45%
	Male			52%
	Prefer not to say			3%
Child Gender	Female			61%
	Male			38%
	Prefer not to say			1%
Income	\$10,000 to \$19,999			6%
	Less than \$10,000			8%
	\$20,000 - \$29,999			2%
	\$30,000 - \$39,999			15%
	\$40,000 - \$49,999			8%
	\$50,000 - \$59,999			14%
	\$60,000 - \$69,999			17%
	\$70,000 - \$79,999			5%
	\$80,000 - \$89,999			10%
	\$90,000 - \$99,999			4%
	\$100,000 - \$149,999			6%
	\$150,000 or more			5%

Table 2

Descriptive Statistics for Divorce Variables (N=322)

		Percent
Marital Status	Divorced	24%
	Living with a partner	1%
	Married	52%
	Separated	18%
	Single, never married	5%
Time of Separation	During Pregnancy	9%
	Child's first year	32%
	Child's second year	26%
	Child's third year	14%
	Child's fourth year	4%
	Child's fifth year	2%
Frequency of Arguments with Coparent	Rarely (once a month or less)	15%
	Occasionally (around twice monthly)	44%
	Frequently (weekly)	31%
	Constantly (daily)	10%
Severity of Hostility with Coparent	None	6%
	Minimal	18%
	Mild	26%
	Moderate	42%
	Severe	8%
	Life Threatening	2%
Custody Arrangement	Joint Legal and Physical	14%
	Legal	40%
	Physical	21%
	Sole	25%
	Other	1%
Primary Residence	Both	24%
	Me	67%
	Other Parent	10%
Satisfaction with Custody Arrangement	Extremely satisfied	34%
	Somewhat satisfied	49%
	Neither satisfied nor dissatisfied	10%
	Somewhat dissatisfied	4%
	Extremely dissatisfied	2%
Custody Process	Conflictual	16%
- -	Nonconflictual	84%

Table 3

Reliability Analysis of Main Study Measures

Measure	Cronbach's Alpha
Social Provisions Scale	.77
Coparenting Relationship Scale	.83
Parent Sense of Competence Scale	.52
Child Behavior Checklist	.98
Taylor Manifest Anxiety Scale	.61
	1.5

Table 4

Correlation Matrix for Study Variables (N=322)

	-	7	3	4	5	9	7	000	6	91	Ξ	12	13	14	15	16	17	18	19
1. Child Age	,																		
<ol><li>Respondent Age</li></ol>	33**	•																	
3. Education	13*	S <sup>i</sup>	•																
4. Income	10	-03	.16**																
5. Respondent Gender	.18**	.30**	.03	05															
<ol><li>Coparent Gender</li></ol>	80.	03	-11*	18**	-33**	,													
7. Child Gender	.11*	.12*	18**	15**	33**	25**	,												
8. Ethnicity	.18**	Ŗ	04	**91	.19**	00:	25**	,											
<ol><li>Argument Frequency</li></ol>	.12*	20.	15**	10	04	:03	50:	02	,										
<ol> <li>Hostility Intensity</li> </ol>	.02	.00	90:-	.03	.03	04	80:	50:	26**	,									
11. Custody Arrangement	01	13*	.15**	80:	9	-10	:03	80.	90:-	.02	,								
12. Child Residence	.03	01	.12*	.07	20#	13*	0.	.15**	90:-	.12*	.23**	,							
13. Satisfaction with Custody	80:	03	16**	.02	90:	90:-	50:	.13*	50:	01	.01	Ŗ	,						
14. Custody Procedure	.10	90.	08	Ŧ	04	.13*	9	.02	.12*	.13*	40,	08	90:						
<ol> <li>Coparent Quality Interpersonal11*</li> </ol>	11*	07	25**	.07	.07	15#	-10	.020	17**	08	.26**	.15**	13*	-27**	,				
16. Coparent Quality Instrumental	.01	08	30**	.15**	.10	**6I`-	15**	:03	15**	05	.21**	.16**	05	20**	.48**				
17. Social Support	-00	08	-01	.01	14*	90:	01	0.	80:	.02	07	80	.22**	-00	:14	90:	,		
18. Child Problem Behaviors	9.	90	20**	02	.02	02	9.	.18**	-11*	-10	#.	.11*	14*	-17**	80.	18**	80.		
<ol> <li>Self-Efficacy</li> </ol>	.01	.12*	20**	0.	#:	03	Π.	90	.17**	.13*	-11	01	02	Π.	60:-	.18**	90:	##	
20. Anxiety	.05	09	04	**9I	-11	90:	02	.07	80.	01	01	04	01	02	04	04	-04	.44**	34**

Note. \*p < 0.05. \*\*p < 0.01. \*\*\*p < .001.

Table 5

Total Variance Explained in Factor Analysis of the Coparenting Quality Subscales

		Initial Eigenvalues	
Component	Total	% of Variance	Cumulative %
1	2.54	42.30	42.30
2	1.97	32.78	75.08
3	.61	10.17	85.25
4	.36	5.99	91.24
5	.27	4.57	95.82
6	.25	4.18	100.00

Table 6

Rotated Component Matrix from Factor Analysis of the Coparenting Quality Subscales

					rerm L	oading		
	1	2	1	2	3	4	5	6
Coparent Closeness	0.89	-	1.00	-	-	-	-	-
2 Coparent Support	0.88	-	0.73	1.00	-	-	-	-
B Endorse Partner Parenting	0.87	-	0.65	0.63	1.00	-	-	-
4 Coparent Undermining	-	-0.82	0.30	0.35	0.12	1.00	-	-
5 Coparent Agreement	-	0.79	0.13	0.11	0.36	-0.51	1.00	-
6 Division of Labor	-	0.78	-0.16	-0.21	0.15	-0.51	0.37	1.00
5 Coparent Agreement	- - -	0.79	0.13	0.11	0.36	-0.51	L	1.00

Table 7

Descriptive Statistics for Main Study Variables

	Mean	Min	Max	Standard Deviation
Social Support	3.10	1	4	0.58
Child Problem Behaviors	1.79	1	3	0.49
Self-Efficacy	3.08	2	5	0.45
Anxiety	1.47	1	2	0.17
Coparenting Quality <sup>a</sup>	3.98	2	6	0.73
Coparenting Quality Interpersonal	4.00	1	7	1.00
Coparenting Quality Instrumental	3.95	2	6	0.53

<sup>&</sup>lt;sup>a</sup>The original Coparenting Quality scale is included for comparison and is not

included in further statistical analysis.

Table 8

Summary of Hierarchical Regression Analysis Assessing Impact of Predictor Variables on Coparenting Quality Interpersonal<sup>a</sup>

			Child	l Problem Beha	vior	
	Variable	В	SE	β	Sr	$R^2/\Delta R^2$
Step 1	Variable					.22
	Child Age	03	.06	03	02	
	Respondent Age	01	.01	04	04	
	Education	.41	.15	.15**	.14	
	Income	02	.11	01	01	
	Respondent Gender	.11	.13	.06	.04	
	Coparent Gender	10	.11	06	05	
	Child Gender	12	.12	07	05	
	Ethnicity	.07	.14	.03	.02	
	Coparental Arguments	19	.11	10	09	
	Coparental Hostility	06	.11	03	03	
	Custody Arrangement	.47	.12	.20***	.19	
	Child's Majority Residence	.06	.06	.05	.05	
	Satisfy Custody Arrangement	17	.10	09	09	
	Custody Process	60	.14	22***	21	
Step 2	·					.02
•	Child Age	02	.06	02	02	
	Respondent Age	.00	.01	04	03	
	Education	.41	.15	.15**	.13	
	Income	03	.11	02	02	
	Respondent Gender	.14	.13	.07	.06	
	Coparent Gender	10	.11	06	05	
	Child Gender	13	.12	07	06	
	Ethnicity	.04	.14	.01	.01	
	Coparental Arguments	22	.11	11	10	
	Coparental Hostility	06	.11	03	03	
	Custody Arrangement	.49	.12	.21**	.20	
	Child's Majority Residence	.07	.06	.06	.05	
	Satisfy Custody Arrangement	11	.10	06	06	
	Custody Process	56	.14	20***	20	
	Self-Efficacy	03	.13	01	01	
	Anxiety	17	.32	03	03	
	Social Support	.26	.09	.15**	.14	

<sup>&</sup>lt;sup>a</sup>Dependent variable is coparenting quality interpersonal

Table 9
Summary of Hierarchical Regression Analysis Assessing Impact of Predictor Variables on Coparenting Quality Instrumental<sup>a</sup>

			Chile	l Problem Beha	vior	
	Variable	В	SE	β	Sr	$R^2/\Delta R^2$
Step 1	v aracic					.08
~ · · · F	Child Age	.08	.06	.07	.07	
	Respondent Age	.01	.01	.10	.09	
	Education	37	.16	13*	13	
	Income	.14	.12	.07	.07	
	Respondent Gender	.08	.14	.04	.03	
	Coparent Gender	16	.12	09	08	
	Child Gender	.10	.13	.05	.04	
	Ethnicity	17	.15	07	06	
	Coparental Arguments	19	.12	09	09	
	Coparental Hostility	14	.12	07	07	
	Custody Arrangement	.28	.13	.12*	.12	
	Child's Majority Residence	.03	.07	.03	.03	
	Satisfy Custody Arrangement	07	.10	04	04	
	Custody Process	.13	.16	.05	.05	
Step 2	·					.06
•	Child Age	.09	.06	.09	.08	
	Respondent Age	.01	.01	.07	.07	
	Education	26	.16	09	08	
	Income	.12	.11	.06	.05	
	Respondent Gender	.01	.13	.00	.00	
	Coparent Gender	15	.12	08	07	
	Child Gender	.08	.12	.04	.03	
	Ethnicity	09	.15	04	03	
	Coparental Arguments	22	.12	11	10	
	Coparental Hostility	17	.11	08	08	
	Custody Arrangement	.30	.13	.13*	.12	
	Child's Majority Residence	.02	.07	.01	.01	
	Satisfy Custody Arrangement	10	.10	05	05	
	Custody Process	.04	.15	.01	.01	
	Self-Efficacy	.52	.13	.23***	.20	
	Anxiety	13	.34	02	02	
	Social Support	22	.10	13*	12	

<sup>&</sup>lt;sup>a</sup>Dependent variable is coparenting quality instrumental

Table 10
Summary of Hierarchical Regression Analysis Assessing Impact of Coparenting Quality Interpersonal on Child Problem Behavior

			Chile	l Problem Beha	vior	
	Variable	В	SE	β	Sr	$R^2/\Delta R^2$
Step 1	v arrabic			-		.14
otop i	Child Age	.04	.03	.08	.07	
	Respondent Age	00	.00	08	07	
	Education	.23	.08	.17**	.16	
	Income	03	.06	03	03	
	Respondent Gender	04	.07	04	03	
	Coparent Gender	01	.06	02	03	
	Child Gender	.01	.06	.01	.01	
	Ethnicity	.24	.07	.19**	.17	
	Coparental Arguments	05	.06	05	05	
	Coparental Hostility	07	.06	07	07	
	Custody Arrangement	.05	.06	07 .04	.04	
		.03	.03	.04	.04	
	Child's Majority Residence					
	Satisfy Custody Arrangement	13	.05	14*	14	
	Custody Process	19	.07	14*	14	2.4
tep 2	CI 11 A	02	02	10	00	.24
	Child Age	.02	.03	.10	.09	
	Respondent Age	00	.00	05	05	
	Education	.16	.08	0.14	.13	
	Income	.03	.05	02*	02	
	Respondent Gender	03	.06	03	02	
	Coparent Gender	02	.06	03	03	
	Child Gender	.03	.06	.03	.02	
	Ethnicity	.17	.07	.17**	.16	
	Coparental Arguments	05	.06	07	07	
	Coparental Hostility	05	.05	09	08	
	Custody Arrangement	.04	.06	.07	.07	
	Child's Majority Residence	.05	.03	.06	.06	
	Satisfy Custody Arrangement	12	.05	15*	14	
	Custody Process	13	.07	13	13	
	Social Support	.08	.04	09	.09	
	Self-Efficacy	30	.06	27***	24	
	Anxiety	1.02	.14	.35***	.32	
tep 3						.00
	Child Age	.02	.03	.04	.04	
	Respondent Age	01	.00	02	01	
	Education	.17	.07	.12*	.11	
	Income	.03	.05	.03	.03	
	Respondent Gender	.04	.06	.04	.03	
	Coparent Gender	03	.05	03	02	
	Child Gender	.03	.05	.03*	.03	
	Ethnicity	.17	.06	.14	.12	
	Coparental Arguments	05	.05	05	05	
	Coparental Hostility	05	.05	05	05	
	Custody Arrangement	.06	.06	.05	.05	
	Child's Majority Residence	.05	.03	.08	.08	
	Satisfied Custody Arrangement	12	.04	13**	13	
	Custody Process	15	.07	12*	10	
	Social Support	.09	.04	.10*	.10	
	Self-Efficacy	30	.06	27***	24	
	Anxiety	1.02	.14	.35***	.32	
	Coparenting Quality Interpersonal	03	.03	07	06	

Table 11
Summary of Hierarchical Regression Analysis Assessing Impact of Coparenting Quality
Instrumental on Child Problem Behavior

			Chile	d Problem Beha	vior	
	Variable	В	SE	β	Sr	$R^2/\Delta R^2$
Step 1	v arrabic					.14
втер 1	Child Age	.04	.03	.08	.07	
	Respondent Age	00	.00	08	07	
	Education	.23	.08	.17**	.16	
	Income	03	.06	03	03	
	Respondent Gender	04	.07	04	03	
	Coparent Gender	01	.06	02	01	
	Child Gender	.01	.06	.01	.01	
	Ethnicity	.24	.07	.19**	.17	
	Coparental Arguments	05	.06	05	05	
	Coparental Hostility	07	.06	03 07	03 07	
	Custody Arrangement	.05	.06	.04	.04	
		.03	.03	.06	.04	
	Child's Majority Residence					
	Satisfy Custody Arrangement	13	.05	14*	14	
g, 3	Custody Process	19	.07	14*	14	2.4
Step 2	CLULA	02	0.2	10	00	.24
	Child Age	.02	.03	.10	.09	
	Respondent Age	00	.00	05	05	
	Education	.16	.08	.14	.13	
	Income	.03	.05	02*	02	
	Respondent Gender	03	.06	03	02	
	Coparent Gender	02	.06	03	03	
	Child Gender	.03	.06	.03	.02	
	Ethnicity	.17	.07	.17**	.16	
	Coparental Arguments	05	.06	07	07	
	Coparental Hostility	05	.05	09	08	
	Custody Arrangement	.04	.06	.07	.07	
	Child's Majority Residence	.05	.03	.06	.06	
	Satisfy Custody Arrangement	12	.05	15*	14	
	Custody Process	13	.07	13	13	
	Social Support	.08	.04	09	.09	
	Self-Efficacy	30	.06	27**	24	
	Anxiety	1.02	.14	.35**	.32	
Step 3						.01
otep o	Child Age	.02	.03	.05	.05	.01
	Respondent Age	01	.00	01	01	
	Education	.14	.07	.11*	.10	
	Income	.04	.05	.04	.03	
	Respondent Gender	.03	.06	.04	.03	
	Coparent Gender	03	.05	03	03	
	Child Gender	.04	.05	.04*	.03	
	Ethnicity	.17	.05	.13	.12	
	Coparental Arguments	06	.05	.13 06	06	
	Coparental Hostility	06 06	.05	06 06	06 06	
	Custody Arrangement	.08	.06	.05	.06	
	Child's Majority Residence	.05	.03	.08	.08	
	Satisfied Custody Arrangement	12	.04	14**	13	
	Custody Process	12	.06	10	10	
	Social Support	.06	.04	.08	.08	
	Self-Efficacy	27	.06	25***	21	
	Anxiety	1.01	.14	.35***	.31	
	Coparenting Quality Instrumental	06	.02	13*	12	

Table 12
Associations for Linear Effect Hypotheses

		Path		T-	P-
Hypo	othesis Path	Coefficient	S.E.	Value	Value
1a	Social Support → Coparent Quality Interpersonal	.15	.09	2.80	**
1b	Social Support → Coparent Quality Instrumental	16	.09	-2.92	**
2a	Self-Efficacy → Coparent Quality Interpersonal	07	.13	-1.26	.21
2b	Self-Efficacy → Coparent Quality Instrumental	.21	.13	3.57	***
3a	Anxiety → Coparent Quality Interpersonal	06	.34	-1.00	.32
3b	Anxiety → Coparent Quality Instrumental	06	.34	-1.01	.31
4a	Self-Efficacy → Child Problem Behaviors	29	.06	-5.80	***
4b	Self-Efficacy → Child Problem Behaviors	26	.06	-5.20	***
5a	Anxiety → Child Problem Behaviors	.34	.14	6.93	**
5b	Anxiety → Child Problem Behaviors	.33	.14	6.80	***

<sup>&</sup>quot;a" hypotheses are tested using coparenting quality interpersonal; "b" hypotheses are tested using coparenting quality instrumental.

Mediation Effects for Tested Hypotheses

Table 13

			Mediation Path	Path		
	Self-Efficacy →	Self-Efficacy →	Social Support →	Social Support →	Social Support →	Social Support →
	Coparent Quality	Coparent Quality	Anxiety	Anxiety	Self-Efficacy	Self-efficacy
Effect	Interpersonal	Instrumental	1	1	1	1
	1	1	Coparenting	Coparenting	Coparenting	Coparenting
	Child Problem	Child Problem	Quality	Quality	Quality	Quality
	Behavior	Behavior	Interpersonal	Instrumental	Interpersonal	Instrumental
Total Effect	27**	28**	.27*	29*	09'	.11
Direct Effect	27**	23**	.26*	29*	.61	60.
Indirect Effect	00:-	02*	00	00	01	.02
Effect of Predictor on M	07	.21***	04	04	.05	.05
Effect of M on Outcome	.01	*60'-	90:-	90:-	07	.21**
Mediation Type	None	Partial	None	None	None	None
Hypothesis Result	Not Supported	Supported	Not Supported	Not Supported	Not Supported	Not Supported

Note: \*p < 0.05. \*\*p < 0.01. \*\*\*p < 0.01.

# Figures

Figure 1

Theoretical Model

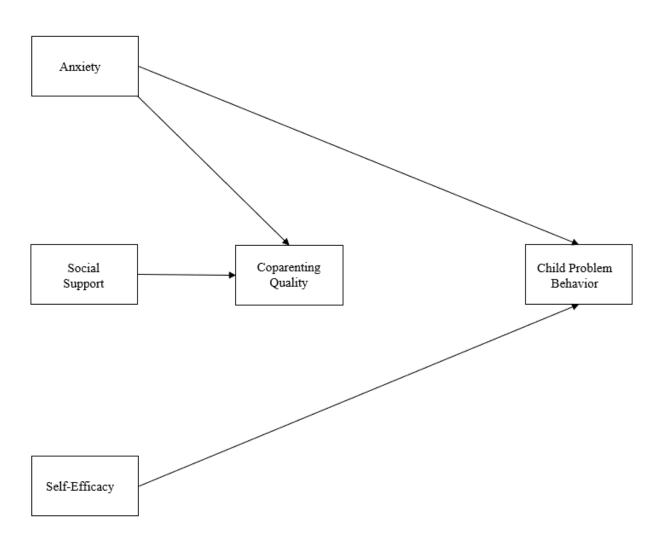


Figure 2

Initial Research Model

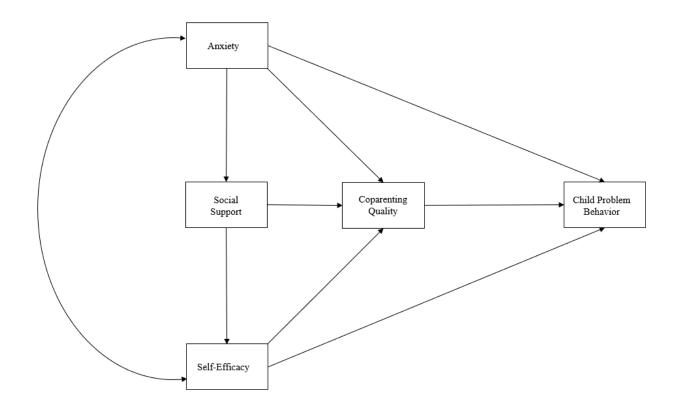
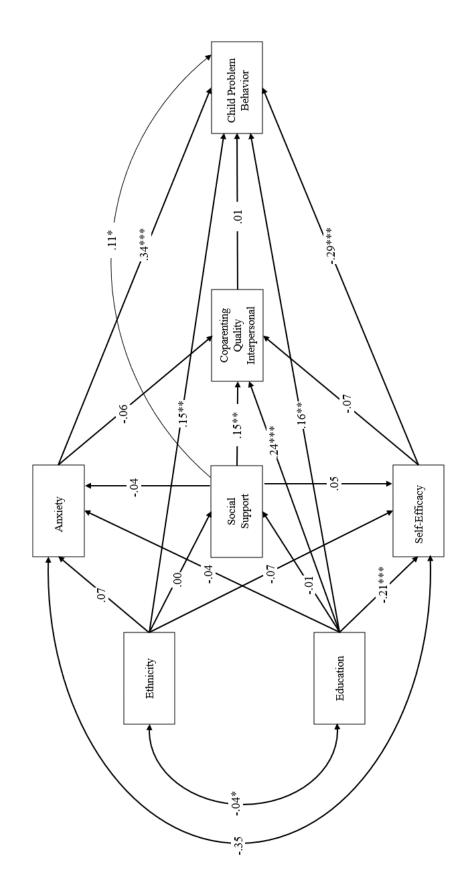


Figure 3

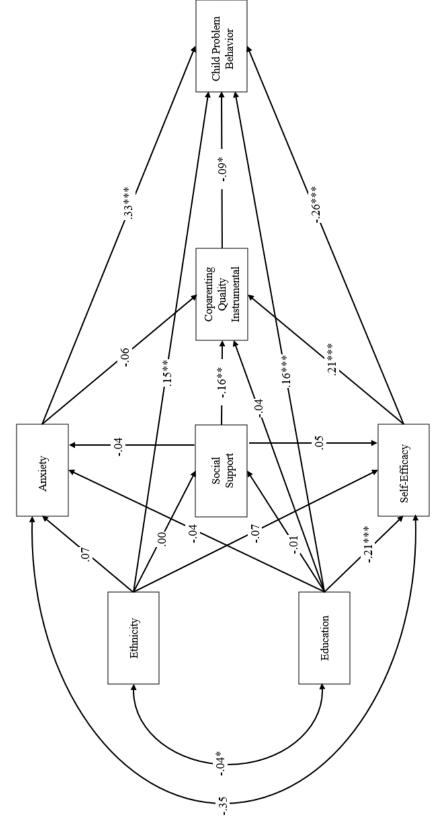
Path Model I Using Coparenting Quality Interpersonal



Note. \*p < .05. \*\*p < .01. \*\*\*p < .001.

Path Model I Using Coparenting Quality Instrumental

Figure 4



*Note.* \*p < .05. \*\*p < .01. \*\*\*p < .001.

#### Appendix A

#### **Qualtrics Prescreen Survey**

01 Please enter your MTurk Worker ID: Q2 In which country do you currently reside? [drop down choice, 1,357 options] Q3 Are you a US citizen? No (1); Yes (2) **Q**4 What is your current age in years? Q5 What is your current marital status? Married (1); Living with a partner (2); Widowed (3); Divorced/Separated (4); Single-Never been married (5) **Q**6 Do you have children? No (1); Yes (2) **Q**7 What is the current age of your youngest child? Less than 18 months (1); 18 months to 3 years (2); 3 to 5 years (3); 5 to 10 years (4); 10 to 16 years (5); More than 16 years (6) **Q**8 Are you currently living with the other parent of this child? Yes (1); No (2) **Q**9 Which of these is your primary language? English (1); Spanish (2); French (3); Other (4) Please copy the following Completion Code so that you can paste it in your MTurk Q10

Task to receive credit.

#### Appendix B

#### **Informed Consent for Qualtrics Survey**

The Impact of Divorce or Separation on Parents, Children, and Families

#### Informed Consent Form

My name is Greg Kovacs, and I am a graduate student at Syracuse University doing research with Dr. Matthew Mulvaney, who is a faculty member at Syracuse University. I would like to ask if you are willing to participate in a survey aimed at understanding the effects of divorce or separation on children, parents, and families. Participation in the study is voluntary so you may choose to participate or not.

#### Research Procedures:

I am interested in studying how various characteristics of parents and relationships impact the outcomes of children. As part of the survey, you will be asked to provide demographic and other information about yourself as well as behavioral and emotional characteristics of your youngest child.

By participating in this study, you will help us understand the impact of various coparenting behaviors on child outcomes. This information will inform the development of intervention programs that will help minimize the effects of divorce or separation on children and families.

Risks that may be involved in participation in the study are no greater than the risks that you may encounter in your everyday life. The possible risks for this study are potential discomfort as the survey questions will ask you to evaluate your own beliefs, values, and behaviors through self-report questions.

Participation in this study is voluntary. If you do not wish to participate, you have the right to refuse to participate. If you decide to participate and later no longer want to continue, you have the right to withdraw from the study at any time. If you feel any emotional discomfort during the study, you may withdraw from this study at any time. If you would like to receive prorated compensation, please contact Greg Kovacs through the MTurk contact system.

You will be compensated \$4.00 through Amazon's Mechanical Turk for your time after you submit your response. The responses will be reviewed for eligibility based on screening questions. Should you be deemed ineligible to participate in this study, you will be reimbursed \$.05 for your participation. We ask that you give us 2 days from the submission of your response to review your survey before we send out the payment.

All data will be kept strictly confidential. No personal information will be linked to your survey response. Only the research team (Dr. Mulvaney and Greg Kovacs) will have access to the data collected. The data will be stored in a personal computer owned by the researcher, will be password protected, and will be deleted following completion of the research.

Whenever one works with email or the internet there is always the risk of compromising privacy, confidentiality, and/or anonymity. Your confidentiality will be maintained to the degree permitted by the technology being used. It is important for you to understand that no guarantees can be made regarding the interception of data sent via the internet by third parties.

If you have any questions, concerns, or complaints about the research, feel free to contact the student researcher Greg Kovacs E-mail: gregkovacs53@gmail.com or Dr. Mulvaney E-Mail: mmulvane@syr.edu. If you have any questions or concerns about your rights as a research participant, or if you have questions, concerns, or complaints that you would like to discuss with someone other than the researcher, please contact the Syracuse University Institutional Review Board at 315-443-3013 or at https://researchintegrity.syr.edu/aboutorip/report-a-concern/.

Please print a copy of this consent document for your own records.

By clicking "I consent" I affirm that I am 18 years of age or older and agree to participate in this research study.

I Consent

After reviewing this study, I do not wish to participate. I understand that I will not be compensated for opting out of this research study.

#### Appendix C

#### **Main Qualtrics Survey**

Q1 [PRESCREEN REPEATED] Which of these is your primary language?

English (1); Spanish (2); French (3); Other (4)

Q2 [PRESCREEN REPEATED] What is the current age group of your youngest child?

Less than 18 months (1); 18 months to 3 years (2); 3 to 5 years (3); 5 to 10 years (4); 10 to 16 years (5); More than 16 years (6)

Q3 When answering questions related to characteristics of your child, please answer referencing your youngest child who 1 1/2 to 5 years of age is (herein referred to as "child," "your child," etc.)

I understand that I am answering questions related to child symptoms or behaviors with reference to my youngest child who 1 1/2 to 5 years of age is (1) I do not have child in that age range; I will exit the study. (2)

- Q4 Please specify the current age (in years) of your youngest child who is between 1 1/2 and 5 years of age?
- Q5 [PRESCREEN REPEATED] Are you currently living with the other parent of this child?

Yes (2); No (1)

Q6 What is the relationship between you and your child?

I am the child's mother (1); I am the child's father (2); I am the child's grandparent (3); I am the child's stepparent (4); Other (please explain): (5)

Q7 Income What is your total household income?

Less than \$10,000 (1); \$10,000 to \$19,999 (2); \$20,000 - \$29,999 (3); \$30,000 - \$39,999 (4); \$40,000 - \$49,999 (5); \$50,000 - \$59,999 (6); \$60,000 - \$69,999 (7); \$70,000 - \$79,999 (8); \$80,000 - \$89,999 (9); \$90,000 - \$99,999 (10); \$100,000 - \$149,999 (11); \$150,000 or more (12)

Q8 What best describes your gender (you, the parent)?

Female (1); Male (2); Prefer not to say (3); Prefer to self-describe (4)

Q9 What is the gender of your youngest child's other parent?

Female (1); Male (2); Prefer not to say (3); They self-describe as: (4)

Q10 What best describes your youngest child's gender?

Female (1); Male (2); Prefer not to say (3); Prefer to self-describe (4)

Q11 Ethnicity Are you of Hispanic, Latino, or Spanish origin?

Yes (1); No (2)

Q12 Race How would you describe yourself?

American Indian or Alaska Native (1); Asian (2); Black or African American (3); Native Hawaiian or Other Pacific Islander (4); White (5)

Q13 If you are not living with your youngest child's other parent, at what point did you stop living with them?

During pregnancy (1); During my child's first year (2); During my child's second year (3); During my child's third year (4); During my child's fourth year (5); During my child's fifth year (6); We never lived together (7)

Q14 Following your child's birth how often do you and your child's other parent argue/fight?

Rarely (once a month or less) (1); Occasionally (around twice monthly) (2); Frequently (weekly) (3); Constantly (daily) (4)

Q15 Following your child's birth what level of hostility do you feel exists between your child's other parent and you?

None (1); Minimal (2); Mild (3); Moderate (4); Severe (5); Life threatening (6)

Q16 What is the current custody arrangement between your child's other parent and you?

Sole Custody (1); Joint Legal Custody (2); Joint Physical Custody (3); Joint Legal and Physical Custody (4); Other (please explain) (5)

Q17 Who does your child live with most of the time?

Me (1); Other Parent (2); Both (3); Other (please explain) (4)

Q18 How satisfied are you with the current custody arrangement and parenting plan?

Extremely satisfied (1); Somewhat satisfied (2); Neither satisfied nor dissatisfied (3); Somewhat dissatisfied (4); Extremely dissatisfied (5)

Q19 What processes did you go through while custody arrangements were decided?

Mediation (1); Counseling (2); Decided on your own (3); Used lawyers (4); Was not given a choice (5); Other (please explain): (6)

Q20 What is the highest level of education you completed?

No schooling completed (1); Nursery school to 8th grade (2); Some high school, no diploma (3); High school graduate, diploma, or the equivalent (for example, GED) (4); Some college credit, no degree (5); Trade/technical/vocational training (6); Associate's degree (7); Bachelor's degree (8); Master's degree (9); Doctorate degree (10)

#### [The Coparenting Relationship Scale]

Q21 For each item, select the response that **best** describes the way you and your child's other parent work together as parents:

Not True	Rarely True	A Little	Somewhat	Often	Usually	Always
of Us	of Us	Bit True	True of Us	True of	True of	True of
		of Us		Us	Us	Us
1	2	3	4	5	6	7

I believe my child's other parent is a good parent

My relationship with my child's other parent is stronger now than before we had a child

My child's other parent asks my opinion on issues related to parenting

My child's other parent pays a great deal of attention to our child

My child's other parent likes to play with our child and then leave the dirty work for me

My child's other parent and I have the same goals for our child

My child's other parent still wants to do his or her own thing instead of being a responsible parent

It is easier and more fun to play with our child alone than it is when my child's other parent is present too

My child's other parent and I have different ideas about how to raise our child

My child's other parent tells me I am doing a good job or otherwise lets me know that I am being a good parent

My child's other parent and I have different ideas regarding our child's eating, sleeping, and other routines

My child's other parent sometimes makes jokes or sarcastic comments about the way I am as a parent

My child's other parent does not trust my abilities as a parent

My child's other parent is sensitive to our child's feelings and needs

My child's other parent and I have different standards for our child's behavior

My child's other parent tries to show that she or he is better than me at caring for our child

It makes me feel good to see my child's other parent play with our child

My child's other parent has a lot of patience with our child

My child's other parent and I often discuss the best way to care for our child

My child's other parent does not carry his or her fair share of the parenting work

When my child, my child's other parent, and I are together, my child's other parent sometimes competes with me for our child's attention

My child's other parent undermines my parenting

My child's other parent is willing to make personal sacrifices to help care for our child My child's other parent and I are growing and maturing together through experiences as coparents

My child's other parent appreciates how hard I work at being a good parent

When I'm at wits end as a parent, my child's other parent gives me the support that I need

My child's other parent makes me feel like I'm the best possible parent for our child The stress of parenthood has caused my child's other parent and me to grow apart My child's other parent doesn't like to be bothered by our child

Parenting has given my child's other parent and me a focus for the future

#### [Parenting Sense of Competence Scale]

Q22 Please rate the extent to which you agree or disagree with each of the following statements:

Strongly	Somewhat Disagree	Neither Agree	Somewhat	Strongly
Disagree		nor Disagree	Agree	Agree
1	2	3	4	5

The problems of taking care of a child are easy to solve once you know how your actions affect your child, an understanding I have acquired

Even though being a parent could be rewarding, I am frustrated now while my child is his/her present age

I go to bed the same way I wake up in the morning, feeling like I have not accomplished a whole lot

I do not know why it is, but sometimes when I'm supposed to be in control, I feel more like the one being manipulated

My parents were better prepared to be good parents than I am

I would make a good model for a new parent to follow in order to learn what he or she would need to know in order to be a good parent

Being a parent is manageable and any problems are easily solved

A difficult problem in being a parent is not knowing whether you're doing a good job or a bad one

Sometimes I feel like I'm not getting anything done

I meet my own personal expectations for expertise in caring for my child

If anyone can find the answer to what is troubling my child, I am the one

My talents and interests are in other areas, not being a parent

Considering how long I've been a parent, I feel thoroughly familiar with this role

If being a parent were only more interesting, I would be motivated to do a better job as a parent

I honestly believe I have all the skills necessary to be a good parent to my child Being a parent makes me tense and anxious

#### [Taylor Manifest Anxiety Scale]

Q23 The statements below inquire about your behavior and emotions. Consider each item carefully and indicate whether the statements are **generally true or false** for you. Select the best option.

True	False
1	2

I do tire quickly

I am troubled by attacks of nausea

I believe I am no more nervous than most others

I have very few headaches

I often experience a great deal of tension

I cannot keep my mind on one thing

I worry about money and work

I frequently notice my hands shake when I try to do something

I blush no more than others

I have diarrhea once a month or more

I worry quite a bit about what might go wrong

I practically never blush

I am often afraid that I am going to blush

I have nightmares every few nights

My hands are feet are usually warm enough

I sweat very easily, even on cool days

I am usually calm and not easily upset

I cry easily

I feel anxiety about something or someone almost all of the time

I am happy most of the time

#### [Depression Scale; not used in statistical analysis]

Q24 Below is a list of the ways you might have felt or behaved. Please tell me how often you have felt this way **during the past week**.

Rarely or none of	Some or a	Occasionally or a moderate amount of	Most or all of the
the time (less	little of	time (3-4 days)	time (5-7 days)
than 1 day)	the time		
-	(1-2 days)		
1	2	3	4

I was bothered by things that usually don't bother me

I did not feel like eating; my appetite was poor

I felt that I could not shake off the blues even with help from my family or friends

I felt I was just as good as other people

I had trouble keeping my mind on what I was doing

I felt depressed

I felt that everything I did was an effort

I felt hopeful about the future

I thought my life had been a failure

I felt fearful

My sleep was restless

I was happy

I talked less than usual

I felt lonely

People were unfriendly

I enjoyed life

I had crying spells

I felt sad

I felt that people dislike me

I could not "get going"

#### [Child Behavior Checklist]

Q25 For each of the following items that might describe your child, **now or within the past 6 months**, please click the bubble corresponding to the **best** option.

o months, prease ener the	bassic corresponding to the best of	ption.
Not True	Somewhat or Sometimes	Very True
(as far as you know)	True	or Often True
1	2	3

Aches or pains (without medical cause; do not include stomach or headaches)

Acts too young for age

Avoids looking others in the eye

Can't concentrate, can't pay attention for long

Can't sit still; is restless or hyperactive

Can't stand having things out of place

Can't stand waiting; wants everything now

Clings to adults or too dependent

Constipated, doesn't move bowels (when not sick)

Defiant

Demands must be met immediately

Destroys things belonging to his/her family or other children

Diarrhea or loose bowels (when not sick)

Disobedient

Disturbed by any change in routine

Doesn't answer when people talk to him or her

Doesn't eat well

Doesn't seem to feel guilty after misbehaving

Easily frustrated

Feelings are easily hurt

Gets in many fights

Gets too upset when separated from parents

Headaches (without medical cause)

Hits others

Hurts animals or people without meaning to

Looks unhappy without good reason

Angry moods

Nausea, feels sick (without medical cause)

Nervous movements or twitching

Nervous, high-strung, or tense

Shows panic for no good reason

Painful bowel movements (without medical cause)

Physically attacks people

Poorly coordinated or clumsy

Punishment doesn't change his/her behavior

Quickly shifts from one activity to another

Refuses to play active games

Screams a lot

Seems unresponsive to affection

Self-conscious or easily embarrassed

Selfish or won't share

Shows little affection toward people

Shows little interest in things around him/her

Stomachaches or cramps (without medical cause)

Rapid shifts between sadness and excitement

Stubborn, sullen, or irritable

Sudden changes in mood or feelings

Sulks a lot

Temper tantrums or hot temper

Too concerned with neatness or cleanliness

Too fearful or anxious

Uncooperative

Unhappy, sad, or depressed

Upset by new people or situations

Vomiting, throwing up (without medical cause)

Wanders away

Wants a lot of attention

Whining

Withdrawn, doesn't get involved with others

Worries

#### [Social Provisions Scale]

Q26 Below is a list of items related to the degree of social support in your life. Please rate each item with reference to the past 6 months

Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
1	2	3	4

I have close relationships that provide me with a sense of emotional security and well-being

There is someone I could talk to about important decisions in my life

I have relationships where my competence and skills are recognized

I feel a part of a group of people who share my attitudes and beliefs There are people I can count on in an emergency

Q27 Please copy the following Completion Code so that you can paste it in your MTurk Task to receive credit.

## **\${e://Field/CompletionCode}**

<u>IMPORTANT</u>: Hit the 'SUBMIT' button below to end the survey. You will not receive credit unless you click this button.

SUBMIT THE SURVEY RESPONSES (1)

# $\label{eq:Appendix D} \mbox{The Coparenting Relationship Scale}^a$

For each item, select the response that best describes the way you and your child's other parent work together as parents:

				Scale			
Not	True	Rarely	A Little Bit	Somewhat	Often True	Usually	Always
of	Us	True of Us	True of Us	True of Us	of Us	True of Us	True of
							Us
	1	2	3	4	5	6	7
Item			Quest	tion		Subscale	Factor
8	It is e	easier and more	e fun to play w	ith our child a	lone than it is	CU1	
	when	my child's oth	er parent is pr	resent too			
12	Му с	hild's other par	rent sometimes	s makes jokes	or sarcastic	CU2	
	comr	nents about the	way I am as a	a parent			
13	Му с	hild's other par	rent does not to	rust my abilitie	es as a parent	CU3	
16	Му с	hild's other par	rent tries to she	ow that she or	he is better than	n CU4	Co
	me at	t caring for our	child				рaı
21			1		e together, my	CU5	œn
			sometimes con	mpetes with m	e for our child's	;	ting
	atten						Q
22	•	hild's other pa		• •	-	CU6	ua
5	-	_	_	ay with our ch	ild and then lea	ve DL1	lity
		irty work for n	, ,				In
20	My child's other parent tries to show that she or he is better than me at caring for our child When my child, my child's other parent, and I are together, my child's other parent sometimes competes with me for our child's attention My child's other parent undermines my parenting My child's other parent likes to play with our child and then leave the dirty work for me (R) My child's other parent does not carry his or her fair share of the parenting work (R) My child's other parent and I have the same goals for our child My child's other parent and I have different ideas about how to  CU4  CU5  CU6  DL1  In  EXECUTE:  CU6  DL2  EXECUTE:  CU7  DL2  EXECUTE:  CU8  DL1  DL2  EXECUTE:  CU9  CU9  CU1  CU9  CU1  CU1  CU2  CU3  CU4  CU5  CU6  DL1  CU6  DL1  CU7  CU7  CU6  DL2  CU7  CU7  CU7  CU7  CU7  CU7  CU8  CU7  CU9  CU9  CU9  CU9  CU9  CU9  CU9						
	-	nting work (R)					me
6	My child's other parent and I have the same goals for our child					CA1	ent
9							
11		our child (R)	. 171	1:00 4:1	1.	C 4 2	
11	•	-			s regarding our	CA3	
1.5		's eating, sleep	-		danda fan arra	$C\Lambda A$	
15	•	hild's other par		e different stan	uarus for our	CA4	
		's behavior (R)		thar parant is s	tronger now that	an CC1	
2	•	e we had a chi	-	mer parent is s	tronger now the	all CC1	•
17		kes me feel go		hild's other na	rent play with	CC2	Сора
1 /	our c	_	ou to see my e	ania's other pa	ient play with	CC2	
24			rent and Lare o	prowing and m	aturing togethe	r CC3	ent. erp
<i>-</i> 1	•	gh experiences	•	510 111115 and 111	ataring togethe		ing
28		C 1		ed my child's o	other parent and	l CC4	arenting Quality nterpersonal
_0		grow apart (F		- Injunio	and paroni and		ıali al
30			*	ner parent and	me a focus for	CC5	ity
-	the fu		<b>J</b>	1			

3	My child's other parent asks my opinion on issues related to parenting	CS1
10	My child's other parent tells me I am doing a good job or otherwise lets me know that I am being a good parent	CS2
19	My child's other parent and I often discuss the best way to care for our child	CS3
25	My child's other parent appreciates how hard I work at being a good parent	CS4
26	When I'm at wits end as a parent, my child's other parent gives me the support that I need	CS5
27	My child's other parent makes me feel like I'm the best possible parent for our child	CS6
1	I believe my child's other parent is a good parent	EPP1
4	My child's other parent pays a great deal of attention to our child	EPP2
7	My child's other parent still wants to do his or her own thing instead of being a responsible parent (R)	EPP3
14	My child's other parent is sensitive to our child's feelings and needs	EPP4
18	My child's other parent has a lot of patience with our child	EPP5
23	My child's other parent is willing to make personal sacrifices to help care for our child	EPP6
29	My child's other parent doesn't like to be bothered by our child (R)	EPP7

*Note.* (R) = item is reverse scored.

Scale creation: Coparenting Agreement (CA) = Items 6, 9, 11, 15; Coparenting Closeness (CC) = Items 2, 17, 24, 28, 30; Coparenting Support (CS) = Items 3, 10, 19, 25, 26, 27; Coparenting Undermining (CU) = Items 8, 12, 13, 16, 21, 22; Endorse Partner Parenting (EPP) = Items 1, 4, 7, 14, 18, 23, 29; Division of Labor (DL) = Items 5, 20.

Factor Creation: Items 8, 12, 13, 16, 21, 22, 5, 20, 6, 9, 11, and 15 comprise the coparenting quality interpersonal factor. Items, 2, 17, 24, 28, 30, 3, 10, 19, 25, 26, 27, 1, 4, 7, 14, 18, 23, and 29 comprise the coparenting quality instrumental factor.

<sup>a</sup>Adapted from Feinberg, M. E., Brown, L. D., & Kan, M. L. (2012). A Multi-Domain Self Report Measure of Coparenting. *Parenting*, *12*(1), 1–21.

https://doi.org/10.1080/15295192.2012.638870

## Appendix E

## Parenting Sense of Competence Scale<sup>a</sup>

Please rate the extent to which you agree or disagree with each of the following statements:

			Scale			
S	trongly	Somewhat	Neither Agree	Somewhat	Strongly	
$\Gamma$	Disagree	Disagree	nor Disagree	Agree	Agree	
	1	2	3	4	5	
			0			
Item	779 1.1	C . 1 .	Question	1 1	1	
1			f a child are easy to sonderstanding I have a		v how your	
2	Even though	gh being a parent co	ould be rewarding, I a	m frustrated now w	hile my child is	
	his/her pre	sent age				
3	I go to bed a whole lot		ke up in the morning,	feeling like I have	not accomplished	
4			metimes when I'm su	innosed to be in co	ntrol I feel more	
7		e being manipulated		ipposed to be in eoi	nuoi, i icci morc	
5		•	ed to be good parents	than I am		
6	I would make a good model for a new parent to follow in order to learn what he or she					
		d to know in order t				
7	Being a parent is manageable and any problems are easily solved					
8	A difficult problem in being a parent is not knowing whether you're doing a good job or					
	a bad one					
9						
10			etations for expertise			
11	If anyone can find the answer to what is troubling my child, I am the one					
12	My talents and interests are in other areas, not being a parent					
13	Considering how long I've been a parent, I feel thoroughly familiar with this role					
14	If being a parent were only more interesting, I would be motivated to do a better job as a parent					
15	I honestly	believe I have all th	e skills necessary to b	be a good parent to	my child	
16	Being a pa	rent makes me tens	e and anxious			

<sup>&</sup>lt;sup>a</sup>Adapted from Gibaud-Wallston, J. & Wandersman, L. P. (1978). Parenting sense of competence scale. PsycTESTS Dataset. https://doi.org/10.1037/t01311-000.

## Appendix F

## Taylor Manifest Anxiety Scale<sup>a</sup>

The statements below inquire about your behavior and emotions. Consider each item carefully and indicate whether the statements are generally true or false for you. Select the best option.

S	cale
True	False
1	2

T4	Oti
Item	Question
1	I do tire quickly
2	I am troubled by attacks of nausea
3	I believe I am no more nervous than most others
4	I have very few headaches
5	I often experience a great deal of tension
6	I cannot keep my mind on one thing
7	I worry about money and work
8	I frequently notice my hands shake when I try to do something
9	I blush no more than others
10	I have diarrhea once a month or more
11	I worry quite a bit about what might go wrong
12	I practically never blush
13	I am often afraid that I am going to blush
14	I have nightmares every few nights
15	My hands are feet are usually warm enough
16	I sweat very easily, even on cool days
17	I am usually calm and not easily upset
18	I cry easily
19	I feel anxiety about something or someone almost all of the time
20	I am happy most of the time

<sup>&</sup>lt;sup>a</sup>Adapted from Taylor, J. A. (1953). A personality scale of manifest anxiety. Perspectives in

Psychology., 68–74. https://doi.org/10.1037/14156-007.

# Appendix G

# Child Behavior Checklist for Ages 1 $\frac{1}{2}$ - $5^a$

	Scale	
Not True	Somewhat or	Very True
(as far as you know)	Sometimes True	or Often True
1	2	3

Item Question 1 Aches or pains (without medical cause; do not include stomach or headaches) 2 Acts too young for age 3 Avoids looking others in the eye 4 Can't concentrate, can't pay attention for long 5 Can't sit still; is restless or hyperactive 6 Can't stand having things out of place 7 Can't stand waiting; wants everything now 8 Clings to adults or too dependent 9 Constipated, doesn't move bowels (when not sick) 10 Defiant 11 Demands must be met immediately 12 Destroys things belonging to his/her family or other children 13 Diarrhea or loose bowels (when not sick) 14 Disobedient 15 Disturbed by any change in routine 16 Doesn't answer when people talk to him or her 17 Doesn't eat well 18 Doesn't seem to feel guilty after misbehaving 19 Easily frustrated 20 Feelings are easily hurt 21 Gets in many fights 22 Gets too upset when separated from parents 13 Headaches (without medical cause) 14 Hits others 15 Hurts animals or people without meaning to 16 Looks unhappy without good reason 17 Angry moods 18 Nausea, feels sick (without medical cause) 19 Nervous movements or twitching 10 Nervous, high-strung, or tense 11 Shows panic for no good reason 12 Painful bowel movements (without medical cause) 13 Physically attacks people 14 Poorly coordinated or clumsy						
Acts too young for age  Avoids looking others in the eye  Can't concentrate, can't pay attention for long  Can't sit still; is restless or hyperactive  Can't stand having things out of place  Can't stand waiting; wants everything now  Clings to adults or too dependent  Constipated, doesn't move bowels (when not sick)  Defiant  Demands must be met immediately  Destroys things belonging to his/her family or other children  Diarrhea or loose bowels (when not sick)  Disobedient  Disobedient  Disturbed by any change in routine  Doesn't answer when people talk to him or her  Doesn't eat well  Doesn't seem to feel guilty after misbehaving  Easily frustrated  Feelings are easily hurt  Gets in many fights  Gets too upset when separated from parents  Headaches (without medical cause)  Hits others  Hurts animals or people without meaning to  Looks unhappy without good reason  Angry moods  Nausea, feels sick (without medical cause)  Nervous movements or twitching  Nervous, high-strung, or tense  Shows panic for no good reason  Painful bowel movements (without medical cause)  Physically attacks people	Item	Question				
Avoids looking others in the eye Can't concentrate, can't pay attention for long Can't sit still; is restless or hyperactive Can't stand having things out of place Can't stand waiting; wants everything now Clings to adults or too dependent Constipated, doesn't move bowels (when not sick) Defiant Demands must be met immediately Destroys things belonging to his/her family or other children Diarrhea or loose bowels (when not sick) Disobedient Disturbed by any change in routine Doesn't answer when people talk to him or her Doesn't seem to feel guilty after misbehaving Easily frustrated Feelings are easily hurt Gets in many fights Gets too upset when separated from parents Headaches (without medical cause) Hits others Hurts animals or people without meaning to Looks unhappy without good reason Angry moods Nervous movements or twitching Nervous movements or twitching Nervous, high-strung, or tense Shows panic for no good reason Painful bowel movements (without medical cause) Physically attacks people	1	Aches or pains (without medical cause; do not include stomach or headaches)				
Can't concentrate, can't pay attention for long Can't sit still; is restless or hyperactive Can't stand having things out of place Can't stand waiting; wants everything now Clings to adults or too dependent Constipated, doesn't move bowels (when not sick) Defiant Demands must be met immediately Destroys things belonging to his/her family or other children Diarrhea or loose bowels (when not sick) Disturbed by any change in routine Doesn't answer when people talk to him or her Doesn't eat well Doesn't seem to feel guilty after misbehaving Easily frustrated Feelings are easily hurt Gets in many fights Gets too upset when separated from parents Headaches (without medical cause) Hits others Hurts animals or people without meaning to Looks unhappy without good reason Angry moods Nausea, feels sick (without medical cause) Nervous movements or twitching Nervous, high-strung, or tense Shows panic for no good reason Physically attacks people	2	Acts too young for age				
Can't sit still; is restless or hyperactive Can't stand having things out of place Can't stand waiting; wants everything now Clings to adults or too dependent Constipated, doesn't move bowels (when not sick) Defiant Demands must be met immediately Destroys things belonging to his/her family or other children Diarrhea or loose bowels (when not sick) Disobedient Disturbed by any change in routine Doesn't answer when people talk to him or her Doesn't eat well Doesn't seem to feel guilty after misbehaving Easily frustrated Feelings are easily hurt Gets in many fights Gets too upset when separated from parents Headaches (without medical cause) Hits others Hurts animals or people without meaning to Looks unhappy without good reason Angry moods Nausea, feels sick (without medical cause) Nervous movements or twitching Nervous, high-strung, or tense Shows panic for no good reason Painful bowel movements (without medical cause) Physically attacks people	3					
Can't stand having things out of place Can't stand waiting; wants everything now Clings to adults or too dependent Constipated, doesn't move bowels (when not sick) Defiant Demands must be met immediately Destroys things belonging to his/her family or other children Diarrhea or loose bowels (when not sick) Disobedient Disturbed by any change in routine Doesn't answer when people talk to him or her Doesn't eat well Doesn't seem to feel guilty after misbehaving Easily frustrated Feelings are easily hurt Gets in many fights Gets too upset when separated from parents Headaches (without medical cause) Hits others Hurts animals or people without meaning to Looks unhappy without good reason Angry moods Nausea, feels sick (without medical cause) Nervous movements or twitching Nervous, high-strung, or tense Shows panic for no good reason Painful bowel movements (without medical cause) Physically attacks people	4	Can't concentrate, can't pay attention for long				
Can't stand waiting; wants everything now Clings to adults or too dependent Constipated, doesn't move bowels (when not sick) Defiant Demands must be met immediately Destroys things belonging to his/her family or other children Diarrhea or loose bowels (when not sick) Disobedient Disturbed by any change in routine Doesn't answer when people talk to him or her Doesn't eat well Doesn't seem to feel guilty after misbehaving Easily frustrated Feelings are easily hurt Gets in many fights Gets too upset when separated from parents Headaches (without medical cause) Hits others Hurts animals or people without meaning to Looks unhappy without good reason Angry moods Nausea, feels sick (without medical cause) Nervous movements or twitching Nervous, high-strung, or tense Shows panic for no good reason Painful bowel movements (without medical cause) Physically attacks people	5	Can't sit still; is restless or hyperactive				
Clings to adults or too dependent Constipated, doesn't move bowels (when not sick) Defiant Demands must be met immediately Destroys things belonging to his/her family or other children Diarrhea or loose bowels (when not sick) Disturbed by any change in routine Doesn't answer when people talk to him or her Doesn't eat well Doesn't seem to feel guilty after misbehaving Easily frustrated Feelings are easily hurt Gets in many fights Gets too upset when separated from parents Headaches (without medical cause) Hits others Hurts animals or people without meaning to Looks unhappy without good reason Angry moods Nausea, feels sick (without medical cause) Nervous movements or twitching Nervous, high-strung, or tense Shows panic for no good reason Painful bowel movements (without medical cause) Physically attacks people	6	Can't stand having things out of place				
9 Constipated, doesn't move bowels (when not sick) 10 Defiant 11 Demands must be met immediately 12 Destroys things belonging to his/her family or other children 13 Diarrhea or loose bowels (when not sick) 14 Disobedient 15 Disturbed by any change in routine 16 Doesn't answer when people talk to him or her 17 Doesn't eat well 18 Doesn't seem to feel guilty after misbehaving 19 Easily frustrated 20 Feelings are easily hurt 21 Gets in many fights 22 Gets too upset when separated from parents 23 Headaches (without medical cause) 24 Hits others 25 Hurts animals or people without meaning to 26 Looks unhappy without good reason 27 Angry moods 28 Nausea, feels sick (without medical cause) 29 Nervous movements or twitching 30 Nervous, high-strung, or tense 31 Shows panic for no good reason 32 Painful bowel movements (without medical cause) 33 Physically attacks people	7					
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Diarrhea or loose bowels (when not sick)  Disobedient  Disturbed by any change in routine  Doesn't answer when people talk to him or her  Doesn't eat well  Doesn't seem to feel guilty after misbehaving  Easily frustrated  Feelings are easily hurt  Gets in many fights  Gets too upset when separated from parents  Headaches (without medical cause)  Hits others  Hurts animals or people without meaning to  Looks unhappy without good reason  Angry moods  Nausea, feels sick (without medical cause)  Nervous movements or twitching  Nervous, high-strung, or tense  Shows panic for no good reason  Painful bowel movements (without medical cause)  Physically attacks people	11	Demands must be met immediately				
Disturbed by any change in routine Doesn't answer when people talk to him or her Doesn't eat well Boesn't seem to feel guilty after misbehaving Easily frustrated Feelings are easily hurt Gets in many fights Gets too upset when separated from parents Headaches (without medical cause) Hits others Hurts animals or people without meaning to Looks unhappy without good reason Angry moods Nausea, feels sick (without medical cause) Nervous movements or twitching Nervous, high-strung, or tense Shows panic for no good reason Painful bowel movements (without medical cause) Physically attacks people	12	Destroys things belonging to his/her family or other children				
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Gets in many fights Gets too upset when separated from parents Headaches (without medical cause) Hits others Hurts animals or people without meaning to Looks unhappy without good reason Angry moods Nausea, feels sick (without medical cause) Nervous movements or twitching Nervous, high-strung, or tense Shows panic for no good reason Painful bowel movements (without medical cause) Physically attacks people	19	Easily frustrated				
Gets too upset when separated from parents Headaches (without medical cause) Hits others Hurts animals or people without meaning to Looks unhappy without good reason Angry moods Nausea, feels sick (without medical cause) Nervous movements or twitching Nervous, high-strung, or tense Shows panic for no good reason Painful bowel movements (without medical cause) Physically attacks people	20	Feelings are easily hurt				
Headaches (without medical cause) Hits others Hurts animals or people without meaning to Looks unhappy without good reason Angry moods Nausea, feels sick (without medical cause) Nervous movements or twitching Nervous, high-strung, or tense Shows panic for no good reason Painful bowel movements (without medical cause) Physically attacks people	21	Gets in many fights				
Hits others Hurts animals or people without meaning to Looks unhappy without good reason Angry moods Nausea, feels sick (without medical cause) Nervous movements or twitching Nervous, high-strung, or tense Shows panic for no good reason Painful bowel movements (without medical cause) Physically attacks people	22	Gets too upset when separated from parents				
Hurts animals or people without meaning to Looks unhappy without good reason Angry moods Nausea, feels sick (without medical cause) Nervous movements or twitching Nervous, high-strung, or tense Shows panic for no good reason Painful bowel movements (without medical cause) Physically attacks people	23	Headaches (without medical cause)				
Looks unhappy without good reason Angry moods Nausea, feels sick (without medical cause) Nervous movements or twitching Nervous, high-strung, or tense Shows panic for no good reason Painful bowel movements (without medical cause) Physically attacks people	24	Hits others				
Angry moods Nausea, feels sick (without medical cause) Nervous movements or twitching Nervous, high-strung, or tense Shows panic for no good reason Painful bowel movements (without medical cause) Physically attacks people	25	Hurts animals or people without meaning to				
Nausea, feels sick (without medical cause) Nervous movements or twitching Nervous, high-strung, or tense Shows panic for no good reason Painful bowel movements (without medical cause) Physically attacks people	26	Looks unhappy without good reason				
Nervous movements or twitching Nervous, high-strung, or tense Shows panic for no good reason Painful bowel movements (without medical cause) Physically attacks people	27	Angry moods				
<ul> <li>Nervous, high-strung, or tense</li> <li>Shows panic for no good reason</li> <li>Painful bowel movements (without medical cause)</li> <li>Physically attacks people</li> </ul>	28	Nausea, feels sick (without medical cause)				
<ul> <li>Shows panic for no good reason</li> <li>Painful bowel movements (without medical cause)</li> <li>Physically attacks people</li> </ul>	29	Nervous movements or twitching				
Painful bowel movements (without medical cause) Physically attacks people	30	Nervous, high-strung, or tense				
33 Physically attacks people	31	Shows panic for no good reason				
	32	Painful bowel movements (without medical cause)				
34 Poorly coordinated or clumsy		Physically attacks people				
	34	Poorly coordinated or clumsy				

- 35 Punishment doesn't change his/her behavior
- 36 Quickly shifts from one activity to another
- 37 Refuses to play active games
- 38 Screams a lot
- 39 Seems unresponsive to affection
- 40 Self-conscious or easily embarrassed
- 41 Selfish or won't share
- 42 Shows little affection toward people
- 43 Shows little interest in things around him/her
- 44 Stomach aches or cramps (without medical cause)
- 45 Rapid shifts between sadness and excitement
- 46 Stubborn, sullen, or irritable
- 47 Sudden changes in mood or feelings
- 48 Sulks a lot
- 49 Temper tantrums or hot temper
- 50 Too concerned with neatness or cleanliness
- 51 Too fearful or anxious
- 52 Uncooperative
- 53 Unhappy, sad, or depressed
- 54 Upset by new people or situations
- Vomiting, throwing up (without medical cause)
- 56 Wanders away
- Wants a lot of attention
- 58 Whining
- Withdrawn, doesn't get involved with others
- 60 Worries

An integrated system of multi-informant assessment. ASEBA.

<sup>&</sup>lt;sup>a</sup>Adapted from Achenbach, T. M. (2001). Manual for the Aseba School-Age Forms & Profiles:

## Appendix H

#### Social Provisions Scale<sup>a</sup>

Below is a list of items related to the degree of social support in your life. Please rate each item with reference to the past 6 months

	Scale							
Strongly Disagree		Somewhat Disagree	Somewhat Agree	Strongly Agree				
	1	2	3	4				
Item	Question							
1	I have close relationships that provide me with a sense of emotional security and well-							
	being							
2	There is someone I could talk to about important decisions in my life							
3	I have relationships where my competence and skills are recognized							
4	I feel a part of a group of people who share my attitudes and beliefs							
5	There are people I can count on in an emergency							
	r							

<sup>&</sup>lt;sup>a</sup> Orpana, H. M., Lang, J. J., & Yurkowski, K. (2019). Validation of a brief version of the Social

Provisions Scale using Canadian national survey data. Health Promotion and Chronic Disease

Prevention in Canada, 39(12), 323–332. https://doi.org/10.24095/hpcdp.39.12.02

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#### **CURRICULUM VITAE**

# **Greg Kovacs**

#### Profile

Experienced Marriage and Family Therapist interested in moving further into academia. Deep private practice specialization in coparenting, couples, and blended families.

## **Employment History**

# Chief Executive Officer at Upstate Marriage & Family Therapy, Utica, NY August 2020 — Present

- Specializes in Parenting Coordination, Coparenting Counseling, and Couples Therapy
- Treats a wide range of relationship difficulties in both intact and postseparation couples, including coparenting, divorce dynamics, and the effects of divorce on children

#### **Host at True You! Podcast**

October 2019 — Present

Hosts the popular *True You!* Podcast, featuring conversations with experts in the fields of psychology, ethics, and culture that feed the mind, inspire growth, and encourage personal and professional transformation.

# Marriage & Family Therapist at Marriage & Family Associates of CNY, Utica, NY

October 2017 — June 2019

- Diagnosed and treated mental and emotional disorders, whether cognitive, affective, or behavioral, within the context of marriage and family systems
- Applied psychotherapeutic and family systems theories and techniques in the delivery of professional services to individuals, couples, and families to treat behavioral and emotional disorders

#### **Group Claims LTD MetLife, Utica, NY**

May 2013 — October 2017

## Clinical Unit Leader | Jan 2016 - Oct

2017

- Oversaw clinical department and ensured its effective, efficient, and profitable operation
- Managed customer service and acted as advocate for team building
- Coordinated training and mentoring for the clinical team

#### **Details**

(315) 527-7936 gregkovacs53@gmail.com

#### Links

LinkedIn

Podcast

Education and Speaking

 Successfully led team to meet business objectives and maintain positive working relationships

### Psychiatric Clinical Specialist | May 2013 - Jan 2016

- Delivered timely clinical services while meeting case management standards, principles, and applicable performance guarantees
- Enhanced the quality of long-term disability claim decisions and facilitation of safe, timely and appropriate return to work outcomes

### Samaritan Counseling Center of the Mohawk Valley, Utica, NY

June 2008 — March 2010

**Executive Director** | Mar 2010 - Mar 2013

Hired by the board of directors to exercise responsibility for the overall leadership and operations of the Center.

- Hired and supervised staff, implemented center services
- · Worked with the Board on funding, marketing, and strategic planning

#### Staff Psychotherapist | Jun 2008 - Mar 2010

- · Provided individual, group, couple, and family counseling
- Developed and implemented the Infant-Parent Psychotherapy Program

# Infant/Parent Psychotherapist at Better Beginnings Program, Catholic Charities of Onondaga County, Syracuse, NY

March 2005 — June 2008

- Provided individualized and intensive mental health therapy for parents with children prenatal to five
- Used in-home and community intervention to improve parent-child interaction, attachment, and behavior

#### Education

# PhD Human Development and Family Science, Syracuse University, Syracuse, NY

August 2019 — March 2022

Dean Edith Smith Dissertation Grant, 2021

# MS, Data Analytics and Predictive Analysis, University of Maryland, Largo, MD

May 2017 — May 2019

# MS, Marriage and Family Therapy, University of New Hampshire, Durham, NH

August 1999 — August 2001

#### BS, Psychology, Binghamton University, Binghamton, NY

August 1993 — May 1997

#### License

### Licensed Marriage and Family Therapist, New York State

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## Memberships

#### Member

- Professional Member, National Council on Family Relations
- Clinical Member: American Association for Marriage and Family Therapy
- · Association for Family and Conciliation Courts
- Legislative Committee, New York Association for Marriage and Family Therapy
- American Evaluation Association
- Leadership Mohawk Valley, Class of 2013
- Utica Rotary

#### President

Central Chapter, New York Association for Marriage and Family Therapy

#### Instruction

### **Adjunct Instructor, Mohawk Valley Community College**

September 2012 — May 2013

Ethics, Policy, and Law

- Three credit-hour course introducing the field of social services with emphasis on ethical and policy considerations faced by human service practitioners and educators
- Ethical decision making, professional competence, self-disclosure, confidentiality, and related topics were covered as they apply to working in counseling and community settings
- The course examined legislation affecting the role of the practitioner and the economic security of the client

#### Group Instructor/Teaching Assistant, Syracuse University

August 2006 — June 2008

#### **Human Sexuality**

- Facilitated 4 semesters of discussions and seminars as doctoral student among 15-40 undergraduate students on a variety of topics: Sex education, sexually transmitted diseases, healthy relationships, and the influence of families on future relationship development
- Assisted Course Instructor with grading, tutoring, and general support for undergraduate students