

Financial Stress, Parenting Quality, and the Moderating Effect of Co-parenting Alliance  
within the Marital Dissolution Population

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## **Dedication**

This work is dedicated to Leang Ta (my mom), Ni Kim Mao (my dad), Jennifer Duyen Mao, Pha Mao, Hun Mao, Sun Mao, Van Mao, Horn Mao (my sisters), Meghan Mao (my wife), and Daniel and Jennifer Masrud (my parents-in-law) for their unconditional love, tireless support, encouragement, and for always believing in me. This tremendous accomplishment would have never been possible without you.

## **Abstract**

In this study, the relationship between the perception of financial stress (measured by income inadequacy), parenting quality (measured by positive parenting, consistent discipline, and good supervision), and the moderating effect that cooperative co-parenting (measured by co-parenting alliance) were investigated within a sample of parents who were separated, filing for divorce, and in post-divorce. Social Exchange Theory (SET) as well as Parenting Alliance Theory (PAT) were used as a guiding framework for the study. PROCESS were used to conduct the moderation analyses. Analyses showed a significant, positive relationship between financial stress and all three indicators of parenting quality (i.e., positive parenting, consistent discipline, and good supervision). Analyses further showed a moderating effect of co-parenting alliance on the relationship between financial stress and the discipline and supervision aspects of parenting quality. Co-parenting alliance did not moderate the effect of financial stress on the positive parenting aspect of parenting quality. These findings contradict existing literature pertaining to the relationship between financial stress and parenting quality. Implications of the results were discussed.

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## Introduction

Marital dissolution tends to bring about dramatic changes for families. For parents, marital dissolution often results in grief for a failed marriage, fear for the uncertain future that lies ahead, stress over the financial consequences, and concerns about their ability to fulfill their own parenting obligations as well as their ability to work with the other parent to raise their child(ren). Marital dissolution became the topic of much public discussion in the mid to late 1970s after family researchers realized that, for the first time in the history of the United States, approximately half of all marriages had ended in divorce (Espenshade, 1979). Although the rate of marital dissolution has declined somewhat since its peak in the 1970s, it is still a common phenomenon. According to a recent survey, more than one-third of all marriages in the United States have ended in divorce. Taken together, divorce has affected more than half-a-million families annually (Centers for Disease Control, 2015).

Aside from being a chaotic, stressful, and often painful experience, marital dissolution also brings about various consequences to families (Hetherington, 1993). These consequences impact numerous aspects of family life, including financial resources, parenting quality, and co-parenting (Avellar & Smock, 2005; Hanson, McLanahan, & Thomson 1998; Harold & Conger, 1997; Lamela, Figueiredo, Bastos, & Feinberg, 2016; Masheter, 1997; Peterson, 1996; Smock, 1994; Wallerstein, Lewis, & Rosenthal, 2013). According to research, families in post-dissolution have experienced a significant decrease in overall financial resources (measured by family income, per capita income, and income-to-needs ratio) (Hanson et al., 1998; McManus & DiPrete, 2001; Peterson, 1996; Smock, 1994; Weitzman, 1985). For instance, it was estimated that

family income decreased between 22 and 55 percent (McLanahan, & Thomson 1998; Morgan, 1991; Nestel, Mercier, & Shaw, 1983; Smock, 1993), per capita income decreased between 20 and 44 percent (Mott & Moore, 1978; Smock, 1993, 1994), and income-to-needs ratio decreased between 6 and 36 percent (Bianchi, Subaiya, & Kahn, 1999; Burkhauser, Duncan, Hauser, & Berntsen, 1991; Stirling, 1989). The decline in financial resources adds additional stress to the already overstressed family system and interrupts numerous aspects of family functioning, including parenting quality and co-parenting.

Indeed, research has shown that marital dissolution often leads to a decline in positive parenting strategies and an increase in negative parenting strategies (Harold & Conger, 1997). These negative parenting strategies are expressed by both the custodial mothers as well as the non-custodial fathers (KlinePruett, Williams, Insabella, & Little, 2003; Sturge-Apple, Gondoli, Bonds, & Salem, 2003). For instance, parents who have gone through marital dissolution tend to show less warmth, more inconsistencies, more rejections, less responsiveness (Hetherington, 1988; Hetherington et al., 1982; Katz & Gottman, 1997), and have acted more harshly towards their children (Harold & Conger, 1997). This deterioration in parenting quality is compounded by the added financial stress. Studies found that when parents experience financial stress, their ability to discipline and monitor their children decreases (Amato, 2000; Bank, Forgatch, Patterson, and Fetrow, 1993; Simons & Associates, 1996). On the other hand, when parents have financial support, their ability to provide positive parenting increases (Amato & Gilbreth, 1999).

In addition to the financial resources and parenting quality, marital dissolution also impacts the co-parenting relationship. According to research, parents tend to experience high levels of conflict within their co-parenting relationship following marital dissolution (Baum & Shnit, 2003; Bonach, 2005; Maccoby, Buchanan, Mnookin, & Dornbusch, 1993; Sbarra & Emery, 2008). Co-parenting refers to the interactions between parents concerning various aspects of child-rearing (Adamsons & Pasley, 2006; Ganong & Coleman, 2004). One contributing factor to this conflict centers around finances. For example, Lund (1987) noted that co-parents tend to experience more conflict when the custodial mothers are unsatisfied with the amount of financial support provided by the non-custodial fathers. Similarly, Bonach (2005) observed that disagreement over financial arrangement tend to cause conflict between co-parents. Other factors included psychological characteristics such as narcissism or lack of acceptance (Baum & Shnit, 2003; Sbarra & Emery, 2008), legal concerns such as an unfavorable custody arrangement or inaccessibility to children (Bonach, 2005; Maccoby et al., 1993; Madden-Derdich & Leonard, 2002), and parenting practices such as lack of discipline or lack of child-rearing skills (Maccoby et al., 1993). These co-parenting conflicts interfere with the couple's ability to work together to provide positive parenting to their children (Hardesty et al., 2016).

Despite the high likelihood of conflict between parents following marital dissolution, research indicates that it is possible for parents to maintain a positive co-parenting relationship and work together cooperatively to fulfill their parental obligations (Amato, Kane, & James, 2011). Indeed, cooperative co-parenting relationships and practices are most advocated by family researchers and practitioners because they often

produce positive results for families (Adamsons & Pasley, 2006; Amato et al., 2011). For instance, studies show that when parents cooperate with each other, they are able to ease adjustment stress related to marital dissolution (Diogo & Barbara, 2011), reduce ‘gatekeeping’ behavior (Pruett, Williams, Isabella, & Little, 2003), and reduce the likelihood that the non-custodial parent will disengage from the parenting partnership and stop their financial contribution (Seltzer, 1991).

In summary, over the past four decades, numerous studies have been done to examine the impact of marital dissolution on families. Further, a considerable number of these studies have investigated the impact of marital dissolution on the family’s financial resources, parenting quality, and the co-parenting relationship. However, despite these studies, there are questions that are yet unanswered. For instance, while there are studies that examine the association between marital dissolution and financial resources (Gadalla, 2009; Hoffman, 1977; McManus & DiPrete, 2001; Nestel, Mercier, & Shaw, 1983; Smock, 1993; Sharma, 2015), financial resources and co-parenting relationship (Bonach, 2005), and co-parenting relationship and parenting quality (Seltzer, 1991), few studies explore the connection between financial stress and parenting quality (Bank et al., 1993; Simons & Associates, 1996).

Further, studies that examine the association between finance and marital dissolution tend to focus on family income, per capita income, and income-to-needs ratio. One reason behind the selection of these measures is the researchers’ desire to use an “*objective measure*” (Braver, Shapiro, & Goodman, 2006). While these measures do provide insight into the financial resources of families in post-dissolution, they only provide partial insight as these measures are considered an *outsider’s perspective* (Dixon

& Rettig, 1994). That is, these measures rely on the researchers' interpretations of measurable economic indicators to evaluate the degree of financial stress family experience. Since parenting is a behavior and is influenced by the degree of stress parents feel, it is more appropriate to use a subjective measure of financial stress to explain the connection between finances and parenting quality. Research indicates that perceptions of one's financial status tend to predict family-related behaviors outcomes to a greater degree than do purely economic indicators such as income (Danes & Rettig, 1995).

Additionally, although there are studies that have investigated the benefit of cooperative co-parenting relationship following marital dissolution, there has yet been a consensus amongst researchers on the conceptual definition of *cooperative co-parenting*. What researchers seem to agree on thus far is that *cooperative co-parenting* are those practices that result in a low level of conflict and a high level of support between parents (Ahorns, 1994; Amato et al., 2011; Lamela et al., 2016; McCaboy & Mnookin, 1992). Since whether or not parents are cooperative in their co-parenting depends on the amount of conflict parents experience, the concept of *cooperative co-parenting* seems to stem from a deficit model. Also, as most measures of *cooperative co-parenting* depend on one parent assessing the level of conflict and support that he/she receives from other parent, it could be argued that the measure does not sufficiently capture *cooperative co-parenting* as it does not provide participants an opportunity to assess themselves and their contribution to the co-parenting dynamic. Lastly, in measures of *cooperative co-parenting*, the questions primarily query about the relationship between the custodial and non-custodial parent rather than measuring specific parenting behaviors which assess the parenting quality that emanates out of that relationship. This research study targets the

components of parenting quality as opposed to elements of the co-parenting relationship, thus filling a literature gap.

The purpose of this study is to investigate the relationship between perceptions of financial stress and parenting quality, and the moderating effect that cooperative co-parenting has on that relationship. This study contributes to the literature in a couple of ways. First, in this study, I use a measure that captures the perceptions of financial stress and examines how that perception influences parenting quality. By using a perception measure to capture financial stress, I am able to capture the insider's perspective about their financial status following marital dissolution instead of guessing how much financial stress parents experience by using economic measures such as income. This is important as insider's perspective and outsider's perspectives are not always in agreement (Dixon & Rettig, 1994).

Second, in this study, I explore the moderating effect of cooperative co-parenting using a more conceptually precise cooperative co-parenting measure and one that is based on a strength model. That is, instead of using a measure that gauges cooperative co-parenting by assessing the presence or absent of conflict between parents, a measure of co-parenting alliance (called the Co-parenting Alliance Measure) is used to capture the degree of cooperation, investment, and respect that one parent has for themselves and for the other parent regarding their parenting ability or behavior consistency. The measure also captures the degree to which parent believes that they can work with the other parent to fulfill their parental obligations. In short, the co-parenting alliance measure focuses more on the parenting behaviors (instead of the relationship), which will provide better

insights into the impact cooperative co-parenting (or co-parenting alliance in this case) has on other aspects of family life.

### **Theoretical Foundation**

Unlike childless couples, parents are not able to completely sever ties with one another following marital dissolution. While parents are able to sever many ties associated with their marriage (e.g., romantic, sexual, emotional, social, etc.) following marital dissolution, they are still connected to one another through their parenting roles (Adamson & Pasley, 2006). In other words, parents still need to work together as co-parents to raise their child(ren) even though they are separated in regards to other aspects of their relationship. To fulfill these parenting roles, it is necessary for the parents to engage in ongoing interactions with each other. These interactions often comprise those concerning finances to cover the basic needs of the children and communicating expectations about parenting practices (Baum & Shnit, 2003; Markham, Ganong, & Coleman, 2007; Madden-Derdich, & Leonard, 2002).

Taking these notions into consideration, Social Exchange Theory (SET) undergirded the theoretical thinking behind this study. In the main, SET focuses on how relationships are experienced and maintained as well as on factors that influence relationship stability (Sabatelli & Shehan, 2004). Expectations are a vital part of how those relationships are experienced, especially in post-dissolution. Profits or well-being is the primary outcome construct in this theory. An assumption of SET is that profit or well-being outcomes may be more important in new situations where the person carefully monitors the outcomes of behavior (Sabatelli & Shehan, 2004). In post-dissolution, each

parent tends to more carefully monitor patterns of fairness, reciprocity, decision making, dominance, control, and power experienced in the ongoing co-parenting role. Another SET assumption is that when interacting with others, humans seek to maximize profits (in this case quality parenting) for themselves while minimizing cost, based on their expectations of whether something will be a cost or a reward (Sabatelli & Shehan, 2004). Usually, the expectation of the custodial parent is that the non-custodial parent will collaborate to bring about quality parenting.

In addition to the assumptions mentioned, two other general assumptions of SET are also relevant to this study. First, the assumption that family relations are constituted by negotiations of interdependent actors (Sabatelli & Shehan, 2004). Pertaining to co-parenting following marital dissolution, this assumption suggests that both parents depend on one another to care for their children from both a financial and developmental standpoint. The second assumption is closely related to the first in that humans are actors as well as reactors in making decisions and initiating actions based on those decisions (Sabatelli & Shehan, 2004). This assumption suggests that the custodial and non-custodial parents need to communicate about finances and developmental issues related to their children. This collaboration as a parental team requires both a give and take between the two parents so to produce decisions and actions that results in quality co-parenting. Thus, SET provides a road map for understanding the dynamics between the co-parents as they work together to fulfill their parenting obligations.

SET falls short, however, in explaining how quality of co-parent interactions (i.e., co-parenting alliance) impacts other aspects of parenting. To understand this aspect of co-parenting, it is necessary to look to the Parenting Alliance Theory (PAT). Weisman and

Cohen (1985) developed and coined the concept of parenting alliance. PAT represents the part of the couple's relationship that is concerned with parenthood and child rearing needs. It relates to the parents' ability to support, communicate, and cooperate with each other to nurture and meet the developmental needs of the child. In post-dissolution, that ability can be strained when the financial resources that are needed to achieve those tasks are scarce (Seltzer, 1991). Such a situation piles added stress onto the already existing relationship stresses from the marital dissolution process. However, Konold and Abidin (2001) proposed that a strong parenting alliance can serve as a buffer (or a moderator) to the stresses that could affect parental behavior. Thus, this study investigates the intervening relationship and moderating effect that a healthy co-parenting alliance might have on the relationship between financial stress and quality parenting practices.

As parents, raising healthy children is an important life endeavor and it remains important despite other negative life events. Research shows that the best way to raise healthy children is for parents to work together as a team (or alliance) (Adamson & Pasley, 2006; Braver et al., 2006; Hetherington & Stanley-Hagan, 2002; Weisman & Cohen, 1985). As Weisman and Cohen (1985) observed, as parents strive to fulfill their parental obligations, a shared parenting alliance becomes part of parents' personal stance toward the future. A healthy parenting alliance reflects these conditions: (a) each parent is invested in the child, (b) each parent values the other parent's involvement with the child, (c) each parent respects the judgements of the other parent, and (d) each parent desires to communicate with the other (Abidin & Brunner, 1995; Dumka, Prost, & Barrera, 2002; Weisman & Cohen, 1985).

Exhibiting a healthy parenting alliance is reflective of another SET assumption that social order arises from continuous exchange of rewards and costs among individuals (Sabatelli & Shehan, 2004). It reflects the investment that post-dissolution parents are willing to make in the short-term (that most likely involves some couple relationship costs to them) so that through quality parenting practices their children might benefit and develop into more well-adjusted adolescents and adults. Making this kind of investment is indicative of another SET assumption in that humans are capable of long-term continuing investments with no immediate returns in the expectation of achieving more favorable outcomes eventually (delayed gratification). That delayed gratifications hopefully results in more well-adjusted children.

The outcome of interest in this study is quality parenting practices. Important dimensions of quality parenting practices include positive parenting, consistent discipline, and appropriate supervision depending on the developmental ages of the children. This study does not directly address children's well-being but focuses on the parental interaction context post-dissolution that is the springboard from which healthy and well-adjusted children might develop.

### **Review of the Literature**

There are very few life events that can impact the family the way marital dissolution does. Often described as chaotic, stressful, and challenging (Adamsons & Pasley, 2006; Dixon & Rettig, 1994), marital dissolution touched every aspect of family life. Three main areas of family life that are most impacted by marital dissolution are financial resources, parenting quality, and co-parenting (Fine & Harvey, 2006). These areas also received the most attention from family researchers and practitioners. In this

section, I will discuss literature pertaining to family financial resources, parenting quality, and co-parenting following marital dissolution.

### **Family Financial Resources Following Marital Dissolution**

Following the realization of the alarming rate of marital dissolution in the United States, many researchers turned their attention to exploring the financial resources of families in post-dissolution. Hoffman (1977) was among the first group of researchers to investigate such relationship. Using a subsample of 2,400 wives and 1,968 husbands from the longitudinal dataset of the Panel Study of Income Dynamics (PSID), Hoffman (1977) explored the relationship between marital status and financial resources of families over a seven-year period (1968-1974). The researcher used two financial measures to capture the family's financial resources: family income and income-to-need ratio. Family income captures the total income of a household. Income-to-need ratio, on the other hand takes into consideration the financial need of a household in relation to its size. This financial need is also known as the poverty threshold. Thus, income-to-need ratio was computed by taking family income and divided it by the poverty threshold appropriate for the family size. This measure provided a more complete picture of the family's financial resources.

Analysis showed that compared to married families, families that had gone through marital dissolution experienced a decline in family income. The magnitude of decline, however, varied depending on the gender of the individuals. For instance, when income-to-need ratio was examined, the researcher learned that, similar to family income, women experienced a decline in income-to-need ratio (6.7%) in post-dissolution. Men on the other hand, experienced an increase in income-to-need ratio (16.5%) (Hoffman,

1977). With regards to these differences, Hoffman (1977) offered two explanations. First, the researcher noted that women tend to get custody of the children after marital dissolution. As the result, they would need more income to support the family size. However, the income generated by women alone after marital dissolution does not meet the income needed. Second, although women received alimony/child support after marital dissolution, this income transfer were not enough to keep up with child care costs. Consequently, these women need to contribute additional dollars to cover childcare.

In addition to noting the financial disparities between men and women in post-dissolution, the researcher also made a couple of other important observations. First, the researcher noted that women experienced a decline in income-to-need ratio in post-dissolution despite an increase in labor force participation and receiving financial assistance from other family members. Men on the other hand, experienced an increase in income-to-need ratio in post-dissolution even after contributing to alimony or child-support. Second, white women were more likely to receive alimony or child support and in a greater amount in post-dissolution than nonwhite women. These findings were important for they provided directions for subsequent research in this field.

Indeed, subsequent research in this area tend to focus on three themes. First, the extent of changes in financial resources for men and women in post-dissolution. Second, the reason behind the disparities in financial resources between the genders. Third, the association between children's economic well-being and child support (Sayer, 2006). In addition, a few researchers also investigated the financial consequences of Whites and Non-whites families in post-dissolution. For the purpose of this study, literature pertaining to the first theme will be reviewed because it provides the best insight into the

impact of marital dissolution on the family's financial resources, and how that ultimately contributes to the overall financial stress family experience.

**Family financial resources for men and women in post-dissolution.** Following Hoffman's (1977) study, a group of researchers continued to explore the financial consequences of marital dissolution for families with specific attention to the financial disparities between men and women in post-dissolution. Similar to Hoffman's (1977) study, these researchers utilized a combination of family income and income-to-need ratio to capture the financial resources of families. In addition, some researchers also used per-capita income as a third financial measure. Per-capita income was calculated by taking the family income and divided that income level by family size. While per-capita income does not provide as complete a picture of the family's financial resources as income-to-need ratio, it does take into consideration the economies of scale. The point being that each of the income measures provides a distinct picture of the financial resources.

Studies that included *family income* as a measure of financial resources conclusively showed a decline in family income for women during the post-dissolution years. While estimates of decline vary depending on the studies, there seems to be an agreement amongst the researchers that the decline was at least 20 percent (Corcoran, 1979; Duncan & Hoffman, 1985; Hanson, McLanahan, & Thomson, 1998; Nestel, Mercier, & Shaw, 1983; Mott & Moore, 1978; Morgan, 1991; Smock, 1993; Stirling, 1989; Weiss, 1984). A few researchers, however, estimated a decline of at least 30 percent (Corcoran, 1979; Duncan & Hoffman, 1985; Mott & Moore, 1978). Smock

(1993) noted that Black women experienced a steeper decline in family income (51 percent) compared to White women (46 percent).

Research on men's *family income* in post-dissolution found mix results. On one hand, a group of researchers noted that, similar to women, men also experienced a decline in family income in post-dissolution. These researchers estimated the decline to be at least 8 percent (McManus & DiPrete, 2001; Morgan, 1991; Smock, 1993). McManus and DiPrete (2001) estimated the decline to be as much as 40 percent for White men (41 percent for Black men). Smock (1993) noted that while some men experienced a decline in family income, others experienced an increase in family income. The researcher also noted that Black men experienced a greater decline in family income than White men. While some White men experienced an increase in family income, all Black men in their study experienced a decline in family income.

Research that utilized *per-capita income* as a measure of family resources in post-dissolution seemed to agree on two results. First, women generally experienced a decline in per-capita income (Gadalla, 2009; Nestel et al., 1983; Mott & Moore, 1978; Smock, 1993, 1994). Second, men tended to experience an increase in the same measure (McManus & DiPrete, 2001; Smock, 1993, 1994). Similar to family income, research estimated that women experienced at least a 20 percent decline in per-capita income (Gadalla, 2009; Nestel et al., 1983; Mott & Moore, 1978; Smock, 1993, 1994), with Black women experiencing a steeper decline than White women (Smock, 1993, 1994). For men, researchers estimated that men experienced an increase in per-capita income of at least 18 percent (McManus & DiPrete, 2001; Smock, 1993, 1994). For men, mixed results were found when race was taken into consideration. Some researchers

documented that White men experienced a greater increase in per-capita income compared to Black men (Smock 1993); other researchers found the opposite result (McManus & DiPrete, 2001).

Finally, research that utilized *income-to-need ratio* as a measure of financial resources were in agreement that women tend to experience a decrease in income-to-need ratio in post-dissolution (Bianchi, Subaiya, & Kahn, 1999; Burkhauser, Duncan, Hauser, & Berntsen, 1991; Corcoran, 1979; Duncan & Hoffman, 1985; Hanson, et al., 1998; McManus & DiPrete, 2001; Peterson, 1996; Smock, Manning, & Gupta, 1999; Stirling, 1989). The majority of these researchers estimated the decline to be at least 13 percent (Bianchi, et al., 1999; Burkhauser, et al., 1991; Corcoran, 1979; Duncan & Hoffman, 1985; Hanson, et al., 1998; McManus & DiPrete, 2001; Peterson, 1996; Stirling, 1989). A smaller group of researchers provided a larger estimate of at least 30 percent (Bianchi, et al., 1999; Stirling, 1989). For men, on the other hand, mixed results were found in change in income-to-need ratio in post-dissolution. While a group of researchers documented an increase in income-to-need ratio (Bianchi, et al., 1999; Peterson, 1996), another group reported a decline in income-to-need ratio (Burkhauser, et al., 1991; McManus & DiPrete, 2001). Interestingly, McManus & DiPrete (2001) noted that Whites experienced a sharper decline in income-to-need ratio than Black men.

Overall, this body of literature showed that women experienced a decline across all three measures of financial resources in post-dissolution, with Black women experiencing a steeper decline than White women. The financial resources of men in post-dissolution, on the other hand, were not as straightforward. In terms of family income, research showed a mixture of decline and increase. While the majority of

research showed a decline in family income in post-dissolution, one study, Smock (1993), also showed an increase in income. For per-capita income, this body of literature seemed to agree that men experienced an increase in this measure of financial resource. Further, White men experienced a greater increase than Black men. Finally, mixed results were found when income-to-need ratio were examined. While most studies showed that men experienced an increase in income-to-need ratio in post-dissolution, one study, McManus & DiPrete (2001), found that men experienced a decrease in income-to-need ratio.

In reflecting on this finding, the researchers noted that the financial consequences of relationship dissolution for men were heterogeneous. While some men experienced an increase in financial resources in post-dissolution, other men, especially ones that earned less than their partners in pre-dissolution, experienced a decrease in financial resources. Despite the mixed results in the financial measures for men in post-dissolution however, overall, men fared better financially than women. Even if men experienced a decline in some measures of financial resources, the decline was less than those experienced by women. What these results seem to illustrate is that families generally experienced financial stress, as evidenced by the decline in the financial resource measures, in post-dissolution. Women and minority are especially disadvantaged financially in post-dissolution and are thus expected to experience an increase of financial stress compared to White men.

**Other characteristics that influenced family financial resources in post-dissolution.** In addition to gender and race, research also noted that such characteristics as employment status and educational level also influenced a family's financial resources

in post-dissolution. For instance, research showed that those who have higher education, more work experience, and work more hours (e.g., work full time) tend to have higher family income, per capita income, and income-to-needs ratios in post-dissolution (Bianchi, Subaiya, & Kahn, 1999; Mauldin, 1990; Smock, 1993; 1994; Smock, Manning, & Gupta, 1999).

Smock (1994) observed that men who contributed the largest amount of income to the household prior to marital dissolution tended to experience the smallest decline in gross household income in post-dissolution. In other words, men who are economically advantaged (e.g., have high levels of education and have high earnings) tend to fare better in post-dissolution compared to their counterparts. Similarly, women who had high levels of education, worked more hours, and had higher earnings tended to fare better economically in post-dissolution compared to women who did not have those characteristics.

**A measurement gap.** Previous research that examined financial resources of families in post-dissolution tend to use three main measures to gage financial resources: family income, per-capita income, and income-to-need ratio. In addition to gaging financial resources, these measures were also used to determine the financial stress experienced by families. For example, it was argued that divorced women experience financial stress through the reduction of either family income, per-capita income, income-to-need ratio, or all three (Dixon & Rettig, 1994).

However, as Dixon and Rettig (1994) noted, this conclusion of financial stress was based on an outsider's perspective. That is, the researchers are the ones that determined whether family experienced financial stress after marital dissolution and to

what extent. This could be problematic because the researchers' perspectives may not reflect the actual experiences of families. Indeed, in their study investigating income adequacy of divorced women, Dixon and Rettig (1994) found an inconsistency between the objective measure of income adequacy and perceptions of income adequacy. Rettig, Danes, and Leichtentritt (1997) found that perception of income adequacy is a strong predictor of emotional stress, with those who perceived to have less income experiencing a higher level of stress. Thus, perceptions of income adequacy might be a better indicator of financial stress because it captures the insider's perspective of the family's financial resources.

Accordingly, to fully understand how individuals and families experience the financial impact of marital dissolution, it is necessary to seek an insider's perspective. That is, to ask the individuals about their perception of their economic well-being. Since stress could impact how individuals interact with others, these insider perspectives are especially important when one is trying to understand the association between economic stress, parenting quality, and co-parenting relationship.

### **Parenting Quality Following Marital Dissolution**

Along with the financial hardship that marital dissolution creates, parenting following marital dissolution poses another challenge for families. Research pertaining to parenting following marital dissolution found that parent's ability to provide quality parenting decreases, at least in the early stages of marital dissolution (Braver et al., 2006; Cohen, 1995; Hetherington & Clingempeel, 1992; Hetherington & Kelly, 2002; Wallerstein, Lewis, & Blakeslee, 2000). For instance, research found that, compared to parents who are married, parents who have gone through marital dissolution tend to be

less authoritative in their parenting practices in the times immediately following the event. Authoritative parenting is characterized by expressing warmth, being responsive, consistent, supportive, and having open communication with the children (Hetherington & Clingempeel, 1992). These parenting practices were considered by many family scholars to be positive parenting practices due to the benefit they have on children's adjustment (Hetherington & Stanley-Hagan, 2002). Other positive parenting practices such as monitoring and spending time with the children also diminishes following marital dissolution (Amato, 2000; Hetherington, 1993, 1999a; Hetherington et al., 1982; Hetherington & Jodl, 1994; Simons, 1996).

These challenges of providing quality parenting in post-dissolution affected both the custodial and non-custodial parents. For example, studies found that custodial mothers tend to have trouble with monitoring and controlling their children, carrying out consistent discipline, and being unresponsive and often being irritable towards their children (Hetherington, 1993, 1999a; Hetherington and Clingempeel, 1992; Hetherington et al., 1982; Hetherington & Jodl, 1994; Simons, 1996). Similar to custodial mothers, custodial fathers also have trouble with monitoring. However, they have less trouble with discipline and control (Buchanan, Maccoby, & Dornbusch, 1991; Maccoby and Mnookin, 1992). Similar to custodial mothers and fathers, non-custodial fathers and mothers also have trouble monitoring and controlling their children (Braver et al., 2006; Hetherington & Stanley-Hagan, 2002). Unlike the custodial fathers who have less trouble with discipline, non-custodial fathers do have trouble disciplining their children (Furstenberg, 1990; Furstenberg and Cherlin, 1991; Gunnoe, 1993). This might be due to the fact that

non-custodial fathers tend to be more permissive in his parenting styles than the custodial parents (Hetherington, 1993).

In addition to documenting the negative impact of marital dissolution on parenting quality, researchers also identified some factors that contributed to parents' inability to provide quality parenting in post-dissolution. Certainly, the emotional and physical stress parents experienced as the result of marital dissolution contributed to parent's, especially mothers, inability to satisfactorily fulfill their parental obligations (Hetherington & Stanley-Hagan, 2002). Parents also experience psychological distress following marital dissolution, which also contributes to their ability to provide quality parenting to their children (Chase-Lansdale and Hetherington, 1990; Forgatch et al., 1996). Last, but not least, financial stress was also a contributing factor. The decrease in financial resources in post-dissolution contributed significantly to the stress experienced by parents, especially mothers, impacting the parent's ability to carry out such positive parenting practices as effective discipline and monitoring of their children (Amato, 2000; Bank, Forgatch, Patterson, & Fetrow, 1993; Simons and Associates, 1996).

### **Co-Parenting Following Marital Dissolution**

Co-parenting following marital dissolution poses another challenge for families. Research on co-parenting in post-dissolution has consistently advocated for the formation and maintenance of cooperative co-parenting due to the benefit cooperative co-parenting has on the family (Adamsons & Pasley, 2006; Camara & Resnick, 1989; Lamela, Figueiredo, Bastos, & Feinberg, 2016; Rettig, Leichtentritt, & Stanton, 1999). Creating an atmosphere of cooperative co-parenting is easier said than done, however, given that most couples tend to experience high levels of co-parental conflict prior to and following

marital dissolution (Ahrons & Wallisch, 1987; Baum & Shnit, 2003; Bonach, 2005; Fulton, 1979; Hetherington, Cox, & Cox, 1982; Masheter, 1991). Not surprisingly, one of the most difficult tasks for parents in post-dissolution is figuring out how to work together to fulfill parental obligations (Adamsons & Pasley, 2006).

Co-parenting refers to the interactions between parents concerning various aspects of child-rearing (Adamsons & Pasley, 2006; Ganong & Coleman, 2004). One of the earliest studies that examined the role of co-parenting in families following marital dissolution was conducted by Camara and Resnick (1989). Using a sample size of 474 participants, the researchers explored the relationship between cooperative co-parenting and child behavior and adjustment. The researchers used nine scales to capture the degree of cooperative co-parenting. These nine scales captured such elements as (1) mother's and father's support of each other's role as a parent, (2) mother's and father's respect and esteem towards each other as parent, (3) mother's evaluation of father's parenting competence, (4) communication between the parents pertaining to their children, (5) shared decision making regarding child-rearing, and (6) the co-parent's cooperation in solving problems relating to child rearing. The researchers learned that cooperative co-parenting was positively associated with children's positive behavior. That is, the higher the cooperation between the co-parents, the more positive behavior (and therefore less negative behavior such as aggression) their children exhibited.

Following Camara and Resnick's (1989) study, researchers began to examine different aspects of co-parenting following marital dissolution. Recognizing the benefit that cooperative co-parenting had on families, a group of researchers worked to promote cooperative co-parenting by developing different co-parenting profiles (or typologies)

and showing how each profile impacted the overall well-being of families (Ahorns, 1994; Amato et al., 2011; Lamela, Figueiredo, Bastos, & Feinberg, 2016; McCaboy & Mnookin, 1992). McCaboy and Mnookin (1992) was amongst the first team of researchers to develop a co-parenting typology. Utilizing a sample of 1,100 divorced families and factor analysis, the researchers identified four different groups of parents: (1) cooperative parents, (2) conflicted parents, (3) parallel parents, and (4) mixed parents. These groups of parents vary in both discord (e.g., frequent arguments, problems with visitation arrangements, undermining of the other parent) and cooperative communication (e.g., frequent communication, established consistency of rules across households, not avoiding each other). Cooperative parents, for instance, had high communication and low discord, conflicted parents had low communication but high discord, and parallel parents have low communication and low discord. The way parallel parents dealt with conflict was to avoid each other. Finally, mixed parents had high communication and high discord. The researchers observed that when parents cooperated in their co-parenting effort, their children tended to fair better.

Amato and colleagues (2011) was another team of researchers that developed a co-parenting typology. Utilizing two waves of the National Survey of Families and Household (NSFH) dataset with a sample size of 944 divorced parents and using cluster analysis, the researchers identified three parenting groups: (1) cooperative co-parenting, (2) parallel parenting, and (3) single parenting. These parenting groups differed in the frequency of contact the non-custodial parent had with the child and the level of conflict between co-parents related to child rearing, as assessed by the custodial parent. In the cooperative co-parenting group, the non-custodial parent had the most frequent contact

with the child and there were modest levels of conflict between the co-parent related to child rearing. In the parallel parenting group, on the other hand, the non-custodial parent had the least amount of contact with the child and modest level of conflict between co-parents. Finally, in the single parenting group, the non-custodial parent had no contact with the child and little to no communication with the custodial parent. The researchers noted that children whose parents cooperated in their parenting (i.e., cooperative co-parenting) tended to experience less behavioral problem and feels closer to their fathers compared to the other groups.

Following McCaboy and Mnookin's (1992) work, a total of four teams of researchers (including McCaboy and Mnookin (1992)) developed co-parenting typologies. The latest typology was developed by Lamela and colleague (2016). In all of the cases, the researchers were interested in exploring the relationship between different co-parenting typologies and children's well-being and in all cases the researchers noted a positive association between cooperative co-parenting and positive children's outcome (Ahorns, 1994; Amato et al., 2011; Lamela, et al., 2016; McCaboy & Mnookin, 1992). While the current study does not examine children's well-being directly, these studies are important because they provide insight into the powerful influence of cooperative co-parenting on the overall well-being of families. Although the research has indicated that cooperative parenting reduces the negative impact of marital dissolution on children's well-being, constructs have been omitted that explain that relationship. One of those is parenting quality, which is problematic because parenting quality is a key factor in determining children's well-being.

In addition to exploring different co-parenting typologies, co-parenting researchers also sought to understand the factors that create conflict within the co-parenting relationship. Since a cooperative co-parenting relationship is one that has the least degree of conflict, it would make sense to examine the contributing factors that create conflict within the co-parenting relationship. Research showed that parents who were hostile towards each other during the divorce process were more likely to continue that hostility within their co-parenting relationship in post-dissolution (Arditti & Kelly, 1994; Braver et al., 1993; Emery, Lauman-Billings, Waldron, Sbarra. & Dillon, 2001). This, in turn, undermined any attempt to create cooperation between parents.

Studies exploring factors affecting co-parental conflict have found several, including psychological, legal, parenting skills, and financial. In terms of psychological factors, research found that narcissism influences co-parental conflict. That is, parents who have a high narcissistic tendency tend to experience an increase in conflict within their co-parenting relationship (Baum & Shnit, 2003). Pertaining to legal, studies found that parents who disagree over custody arrangements are dissatisfied with accessibility to children (Madden-Derdich, & Leonard, 2002) and experience intense legal disputes (Maccoby, Buchanan, Mnookin, & Dornbusch, 1993) and tend to experience an increase in conflict within their co-parenting relationship. Disagreement over discipline of the children, concerns regarding the parent's ability to care for children (Maccoby, et al., 1993), and disagreement over parent's child rearing skills (Madden-Derdich, & Leonard, 2002) also contribute to co-parenting conflict. Finally, finances also play a role in creating co-parental conflict. Research found that when parents disagreed over financial

arrangements, they tended to experience an increase in conflict within their co-parenting relationship (Bonach, 2005).

In summary, research on co-parenting following marital dissolution tends to focus on co-parenting as it relates to child well-being and conflict within the co-parental relationship. Studies that examined the link between co-parenting and child well-being agreed that cooperative co-parenting improved child well-being (Ahorns, 1994; Amato et al., 2011; Camara & Resnick, 1989; Lamela et al., 2016; McCaboy & Mnookin, 1992). Studies that explored conflict within the co-parental relationship found that parents tended to experience frequent conflicts within their co-parental relationship following marital dissolution (McBroom, 2011). The areas of conflict are broad, ranging from psychological to financial. These conflicts negatively impact the family (especially the children) for when parents are at odds with each other (e.g., engage in conflict), it is harder for them to work together cooperatively to fulfill their parental obligations.

**Limitations.** Despite the numerous research on co-parenting, there are a few limitations to this body of literature that warrant discussion. First, most of the studies on co-parenting tend to focus on co-parenting as it pertains to children's well-being. While co-parenting influences children's well-being, co-parenting might not be the main parenting factor. Co-parenting, for instance, might impact other parenting factors, such as parenting quality, which, in turn, might have a closer connection to (and better explain) children's well-being. In fact, research on parenting quality has documented a direct connection between the parenting quality and children's adjustment (Hetherington & Stanley-Hagan, 2002). Thus, if the ultimate goal of co-parenting research is to understand how a co-parenting partnership influences children's well-being, it might be helpful to

understand how co-parenting influence factors that directly affect children's well-being. While the current study does not include children's well-being, it does include parenting quality. Thus, the current study addresses this limitation by expanding the research to include the link between co-parenting and parenting quality.

Second, there is a lack of conceptual precision in defining *cooperative co-parenting*. While researchers agree on the conceptual definition of *co-parenting* (Adamsons & Pasley, 2006; Ganong & Coleman, 2004), there has not been much discussion amongst researchers regarding the definition of *cooperative co-parenting*. For the most part, with the exception of Camara and Resnick (1989), most research identified cooperative co-parenting based on the cooperation/conflict ratio (e.g., Ahorns, 1994; Amato et al., 2011; Lamela et al., 2016; McCaboy & Mnookin, 1992). That is, cooperative co-parenting consisted of the least amount of conflict and the highest level of cooperation. As a result, it could be argued that cooperative co-parenting, as a construct, was based on the deficit model rather than a strength-based model. Further, most research on cooperative co-parenting in post-dissolution tends to focus on the presence or absence of cooperation between the co-parents concerning child rearing; there is little research that examines the *degree* of cooperation between the co-parents as they work to fulfill their parental obligations. Since cooperative co-parenting has a positive impact on family functioning (Adamsons & Pasley, 2006), it would be insightful to examine whether or not the *degree* of cooperation between the co-parenting improves family functioning (e.g., help parents to provide better parenting quality). This study fills that gap in the literature.

## **Research Questions and Hypotheses**

Although there has been much research on financial stress, co-parenting, and parenting quality within the marital dissolution population, no studies to date have examined these three variables together. Previous research has only investigated the relationship among pairs of these variables. Further, most research on financial stress has relied on measures that gauge stress from an outsider's perspective. Thus, this study aims to fill that gap by investigating the relationship between the perceptions of financial stress, parenting quality (measured by positive parenting, consistent discipline, and good supervision), and the moderating effect that cooperative co-parenting (co-parenting alliance) has on that relationship.

Moderation is a statistical model that tests whether or not the predictive strength (and/or direction) of one variable (X) on another variable (Y) varies when a third variable (M) is introduced (Fairchild & Mackinnon, 2009). A variable (M) is said to moderate the relationship between two variables (X and Y) if the strength and/or direction of the relationship changes when that variable is introduced into the model (Fairchild & Mackinnon, 2009; Hayes, 2013). Pertaining to this specific study, moderation allows for the investigation of whether or not the predictive strength of financial stress on parenting quality changes when co-parenting alliance is taken into consideration (see Figure 1 for the conceptual model). In the conceptual model (Figure 1), financial stress is depicted as having an influence on parenting quality, as illustrated by the arrow pointing from financial stress to parenting quality. This relationship, as proposed, is affected (or moderated) by co-parenting alliance, as illustrated by the arrow pointing from co-parenting alliance to the line between financial stress and parenting quality.

Based on the guiding assumptions of SET, PAT and the findings of the literature, I propose the following research questions (RQ) and hypotheses (H):

RQ1: What is the association between financial stress and parents' ability to practice positive parenting?

H1: There is a negative association between financial stress and parents' ability to practice positive parenting, controlling for gender, race, employment status, education level, annual gross income, relationship status, satisfaction with custody arrangement, and conflict during divorce.

RQ2: What is the association between co-parenting alliance and parents' ability to practice positive parenting?

H2: There is a positive association between co-parenting alliance and parents' ability to practice positive parenting, controlling for gender, race, employment status, education level, annual gross income, relationship status, satisfaction with custody arrangement, and conflict during divorce.

RQ3: What is the association between financial stress and parents' ability to practice consistent discipline parenting?

H3: There is a negative association between financial stress and parents' ability to practice consistent discipline parenting, controlling for gender, race, employment status, education level, annual gross income, relationship status, satisfaction with custody arrangement, and conflict during divorce.

RQ4: What is the association between co-parenting alliance and parents' ability to practice consistent discipline parenting?

H4: There is a positive association between co-parenting alliance and parents' ability to practice consistent discipline parenting, controlling for gender, race, employment status, education level, annual gross income, relationship status, satisfaction with custody arrangement, and conflict during divorce.

RQ5: What is the association between financial stress and parents' ability to practice good supervision parenting?

H5: There is a negative association between financial stress and parents' ability to practice good supervision parenting, controlling for gender, race, employment status, education level, annual gross income, relationship status, satisfaction with custody arrangement, and conflict during divorce.

RQ6: What is the association between co-parenting alliance and parents' ability to practice good supervision parenting?

H6: There is a positive association between co-parenting alliance and parents' ability to practice good supervision parenting, controlling for gender, race, employment status, education level, annual gross income, relationship status, satisfaction with custody arrangement, and conflict during divorce.

H7: Co-parenting alliance will moderate the impact of financial stress on parents' ability to practice positive parenting, consistent discipline, and good supervision, controlling for gender, race, employment status, education level, annual gross income, relationship status, satisfaction with custody arrangement, and conflict during divorce.

## **Methods**

### **Study Design**

The data for this study come from the University of Minnesota Extension's Parents Forever program. Parents Forever is an 8-hour parent education program designed for parents who are going through divorce. The Parents Forever curriculum covers five content areas including, (1) the impact of divorce on children, (2) the impact of divorce on adults, (3) legal issues and the role of mediation, (4) money issues in divorce, and (5) pathways to a new life (Becher, Cronin, McCann, Olson, Powell, & Marczak, 2014). In 2016, as part of a continual effort to evaluate and improve the effectiveness of the program, the Parents Forever team developed and distributed a survey to two groups of participants. The first group of participants consisted of those who had participated in the Parents Forever program. The second group of participants, called the *control group*, are those from the general population. The data for this study came from the *control group* survey.

The Parents Forever team worked with Qualtrics, a survey software company, to recruit participants and distribute the survey. Past research that compared recruitment using online marketplace services (e.g., Qualtrics) with those of traditional recruitment found little difference between the two methodologies. Due to the efficiency and low cost of the online recruitment, more researchers are utilizing this method to recruit participants for their studies (Clifford & Jerit, 2014; Dworkin, Brar, Hessel, & Rudi, 2016).

Participants were recruited using the Qualtrics panel services, who worked through partners' company such as Amazon Turk, to recruit potential participants across the United States. To ensure data quality, potential participants were screened in two screening phases. First, Qualtrics sent out email inquiries to potential participants within

their database that fits the study's criteria. The criteria for the current study included individuals who (1) are over 18 years of age, (2) are divorced/separated or have filed for a divorce, (3) have not been mandated to participate in a divorce education (e.g. have not taken a divorce education class), (4) who share a minor child(ren) with the other person involved in the divorce or separation, and (5) are experiencing contested custody with the person they are divorcing/separating. Potential participants who wished to participate in the study were asked to click on the survey link accompanying the email. The survey link then took the potential participants to the Parents Forever survey screening questions to further assess eligibility.

The second screening phase involved potential participants answering three screening questions within the Parents Forever survey. The first questions inquired whether or not participants were separated or had filed for a divorce and shared a minor child with his/her partner. The second question inquired whether or not participants experience contested custody relating to their children. Finally, the third question inquired whether or not participants had been mandated to attend divorce education course. The potential participants were permitted to partake in the study if they indicated that they (1) had recently filed for a divorce and shared a child with their partner, (2) had experienced contested custody, and (3) had not been mandated to participate in a divorce education course. Participants were offered various incentives (e.g., points they could use for online purchase, and the like) to participate in the study. Though these incentives were not cash per se, they do have a cash equivalency of about \$4.00. The incentives were sent to participants within one week of completing the survey.

In total, 452 participants completed the survey. Not all data were usable because there were participants who completed the survey who did not meet the study's criteria. However, these group of participants made up a small percentage (less than 13%) of the total number.

### **Current Study's Participants**

Since the focus of this study is on the relationships among financial stress, parenting quality, and co-parenting alliance within the marital dissolution population (defined as separated, divorced, or in the process of divorcing), I conducted another screening process and excluded data that did not fit the criteria. In other words, the inclusion criteria for this study included (1) parents who were separated, (2) parents who were in the process of filing for a divorce, (3) parents who have filed for a divorce, and (4) parents who have been granted a divorce. In addition, I have excluded transgender parents since only one parent identified as transgender.

This study utilized the short form of the Alabama Parenting Questionnaire (SF\_APQ) to measure parenting quality. The SF\_APQ consisted of three subscales that capture how much parents praise their children, their discipline practice, and their supervision practice. The SF\_APQ was developed and validated by Elgar et al. (2006) using a sample of participants ages 5 years and older. To be consistent with Elgar et al.'s (2006) study, I have further imposed an age criterion of at least 5 years old. In other words, I excluded participants who indicated that they have children younger than 5 years old. Further, upon careful examination of each item within the three scales, I determined that the items within the supervision scale were not appropriate, conceptually, for children who were younger than 9 years of age. For instance, one of the items within the

supervision scale inquired about children failing to leave a note when they were out with their friends. Conceptually, children who are younger than 9 years old are less likely to be out and about with their friends outside of school. Thus, for this subscale, I imposed another age restriction, at least 9 years of age.

Taken together, the inclusion criteria yielded two different sample subsets with different sample sizes. The first sample subset (Sample 1), with a final sample of 312, was most appropriate for the *positive parenting* and *discipline* practice subscales. The second sample subset (Sample 2), with a final sample of 172, was most appropriate for the *supervision* practice subscale. Thus, in this study, I conducted analyses on both sample subsets but with a different focus on the SF\_APQ subscales depending on the sample subsets. Since I am working with two different sample subsets, I will describe the participants' characteristics for both samples.

**Handling “*Not applicable: Child too young*” options.** While the original SF\_APQ measure utilized a five-point, Likert-type scale (from *never* (1) to *always* (5)) to measure participants' parenting quality, the Parents Forever team included a sixth option (*Not applicable: Child too young*) to the SF\_APQ measure in their survey. Given that not all items within the SF\_APQ are applicable to children of all ages, having this sixth option provided participants with more flexibility in their responses. The inclusion of the “*Not applicable: Child too young*” option, however, presented a unique challenge to data analysis in that this option did not add to the overall assessment of parenting quality. Further, due to the fact that the “*Not applicable: Child too young*” option was given a value of 6 on the scale, including this option in the analysis as is would have jeopardized the validity of the results. The reason for this is that, conceptually, the “*Not applicable:*

*Child too young*” option represents an inaction (or no action) from parents pertaining to that particular item. However, as how it was presented, the “*Not applicable: Child too young*” option seemed to indicate the highest ranking for that particular item (e.g., more than *always*). This is an incorrect interpretation of the option and thus threatened the validity of the result.

Research suggests that one way to handle the “not applicable” option is to treat it as a “missing” value (Holman, Glass, Lindeboom, Zwinderman, & Haan, 2004). Though this is an option, I felt that this was not the best option in the case of this study. One reason for this is that treating the “not applicable” as “missing” would reduce the sample size and this, in turn, would reduce the strength of the result. Thus, instead of going with this option, I decided to treat the “*Not applicable: Child too young*” option as a “*never*” response. As mentioned earlier, I conceptualized that when parents selected the “*Not applicable: Child too young*” option for an item, they were essentially saying that they had never done that. For instance, when parents selected the “*Not applicable: Child too young*” option for the question, “you threaten to punish your child and then do not actually punish him/her”, what they are essentially saying is that they had never done that because their child was too young. Treating the “*Not applicable: Child too young*” response as a “*Never*” response was advantageous because it allowed me to maintain my sample size.

Prior to finalizing the decision to move forward with the parenting quality measure that combined the “*Not applicable: Child too young*” and the “*Never*” responses, I ran a series of analyses (e.g., descriptive analysis, reliability analysis, etc.) comparing both the options of combining the “*Not applicable: Child too young*” and “*Never*” (i.e.,

combined) and making the “*Not applicable: Child too young*” response as “missing” (i.e., missing). The analyses showed little difference between the two options. Take, for example, the “Positive Parenting” scale, the mean and standard deviation of the scale for the “missing” option were 12.70 and 2.67 respectively and the mean and standard deviation of the scale for the “combined” option were 12.41 and 2.94 respectively. The reliability score for both options were 0.84 for “missing” and 0.81 for “combined”. Given that there were few differences between the “missing” and “combined” option, that the “combined” option provided more benefit due to the retention of sample size, and that it was more conceptually sound, I selected the parenting quality scale that combined the “*Not applicable: Child too young*” and “*Never*” responses.

**Sample 1.** As mentioned above, the inclusion criteria for Sample 1 was used for positive parenting and consistent discipline practice analyses. They included (1) parents who were separated, (2) parents who were in the process of filing for a divorce, (3) parents who had filed for a divorce, (4) parents who have been granted a divorce, (5) parents who did not identify as “transgender”, and (6) parents who have a child(ren) of at least 5 years of age. These criteria yielded a sample of 312 participants. Of these participants, 42.9% were women and 57.1% were men. Pertaining to relationship status, 10.3% of participants stated that they were separated from their partner, 43.6% stated that they were in the process of filing for a divorce, 37.8% indicated that they had filed for a divorce, and 8.3% stated that they had been granted a divorce. The racial/ethnic composition of the subsample included White (51.6%), African American/Black (27.9%), Hispanic/Latino (5.1%), Asian (1.6%), Native American/Alaskan Native (0.6%), Middle Eastern (0.3%), and 12.8% indicated that they were multicultural (more than 2

racesses/ethnicities). Over half of participants (60.3%) were between 31 and 40 years of age with the mean age of 35.26 years. Further, over half of participants (59.9%) had children between the ages of 5 and 10 years old.

Pertaining to education, 0.3% of participants in sample 1 indicated that they did not had a high school degree, 13.5% indicated that they had a high school degree or GED, 17.6% indicated that they had some college education, 11.2% stated that they had a 2-year college or technical school degree, 30.8% stated that they had a 4-year college degree, and 26.6% stated that they had a graduate degree (Master, Ph.D., M.D.). Overall, the majority of participants (86.2%) in sample 1 completed some college education.

Regarding employment status, 76.3% of participants indicated that they were working full-time, 9.6% indicated that they were working part-time, 6.7% indicated that they are not working for pay (by choice), 4.2% indicated that they were not working for pay (not by choice), and 3.2% selected “other” when inquired about their employment status. In terms of gross annual income, 7.7% reported less than \$12,000, 11.9% reported between \$12,001 – \$18,000, 9.3% reported between \$18,001 – \$24,000, 11.5% reported between \$24,001 – \$30,000, 22.4% reported between \$30,001 – \$36,000, 17.6% reported between \$36,001 – \$42,000, 8.3% reported between \$42,001 – \$48,000, and 11.2% reported that their gross annual income was more than \$48,000. As a whole, over half of participants (59.5%) in this sample had an annual income greater than \$30,000.

When asked about the amount of conflict they experienced during their divorce/separation process, 19.2% shared that they experienced much more than other co-parents, 25.6% stated that they experienced somewhat more than other co-parents, 40.7% indicated that they experienced about the same amount of conflict as other co-parents,

10.3% stated that they experienced somewhat less than other co-parents, and 4.2% indicated that they experienced much less than other co-parents. Finally, when inquired about whether or not they were satisfied with their custody arrangement, almost half (48.1%) indicated that they were very satisfied, 17.4% indicated that they were somewhat satisfied, 17.0% were neutral, 13.5% indicated that they were somewhat dissatisfied, and 3.8% stated that they were very dissatisfied with their custody arrangement. (See Table 1 for a complete list of the characteristics of the sample).

**Sample 2.** Similar to sample 1, the inclusion criteria for this sample, which was used in the consistent supervision analysis, includes (1) parents who were separated, (2) parents who were in the process of filing for a divorce, (3) parents who have filed for a divorce, (4) parents who have been granted a divorce, (5) parents who did not identify as “transgender.” However, unlike sample 1, this sample included parents who have a child(ren) of at least 9 years of age. These criteria yielded a sample of 172 participants. Of these participants, 32% were women and 68% were men. In terms of relationship status, 6.4% of participants stated that they were separated from their partner, 51.7% stated that they were in the process of filing for a divorce, 35.5% indicated that they had filed for a divorce, and 6.4% stated that they had been granted a divorce. Over half of participants (66.2%) were between 31 and 40 years of age with the mean age of 36.49 years. The racial/ethnic composition of the subsample included White (47.7%), African American/Black (37.8%), Hispanic/Latino (4.1%), Asian (1.7%), Native American/Alaskan Native (0.6%), and 8.1% indicated that they were multicultural (more than 2 races/ethnicities).

Pertaining to education levels, 0.6% of participants indicated that they did not have a high school degree, 9.9% indicated that they had a high school degree or GED, 11.6% indicated that they had some college education, 9.3% stated that they had a 2-year college or technical school degree, 26.7% stated that they had a 4-year college degree, and 41.9% stated that they had a graduate degree (Master, Ph.D., M.D.). Overall, the majority of participants (89.5%) completed some college education and almost half of the participants (41.9%) had a professional degree (e.g., Masters, Ph.D., MD).

Regarding employment status, 85.5% of participants indicated that they were working full-time, 5.8% indicated that they were working part-time, 1.7% indicated that they were not working for pay (by choice), 5.2% indicated that they were not working for pay (not by choice), and 1.7% selected “other” when inquired about their employment status. In terms of gross annual income, 7.0% reported less than \$12,000, 12.2% reported between \$12,001 – \$18,000, 6.4% reported between \$18,001 – \$24,000, 11.6% reported between \$24,001 – \$30,000, 29.7% reported between \$30,001 – \$36,000, 15.7% reported between \$36,001 – \$42,000, 8.1% reported between \$42,001 – \$48,000, and 9.3% reported that their gross annual income was more than \$48,000. As a whole, over half of participants in this sample (62.8%) had an annual income greater than \$30,000.

When asked about the amount of conflict they experienced during their divorce/separation process, 19.8% shared that they experienced much more than other co-parents, 26.2% stated that they experienced somewhat more than other co-parents, 40.1% indicated that they experienced about the same amount of conflict as other co-parents, 9.9% stated that they experienced somewhat less than other co-parents, and 4.1% indicated that they experienced much less than other co-parents. Lastly, in terms of

satisfaction with custody arrangement, over half of participants (61.0%) indicated that they were very satisfied with their custody arrangement, 12% stated that they were somewhat satisfied, 16.3% were neutral, 7.6% indicated that they were somewhat dissatisfied, and 2.3% stated that they were very dissatisfied with their custody arrangement. (See Table 2 for a complete list of the characteristics of the sample). Aside from the number of participants, the Sample 1 and Sample 2 are very similar in demographic characteristics.

## **Measures**

**Parenting Quality.** Parenting quality is the dependent variable. Parenting quality refers to parenting practices that contribute to a child's well-being. Parenting quality was assessed using the Alabama Parenting Questionnaire Short Form (SF\_APQ). The SF\_APQ measure consists of three subscales. The subscales include (1) positive parenting, (2) inconsistent discipline, and (3) poor supervision. Each subscale consisted of three items. For all items, participants were asked to provide a rating using a five-point, Likert-type scale – from *never* (1) to *always* (5). Example of items include (1) You let your child know when he/she is doing a good job with something, (2) You threaten to punish your child and then do not actually punish him/her, and (3) Your child is out with friends you don't know (Elgar, Waschbusch, Dadds, & Sigvaldason, 2006). Items pertaining to negative parenting practices were reversed coded so that higher values reflect less negative practices. For instance, the item “you threaten to punish your child and then do not actually punish him/her” was recoded so that 1 corresponds to *always* and 5 corresponds to *never*.

*The development of the SF-APQ.* Past research that explored parenting practices and children's well-being has found that ineffective parenting practices (e.g., inconsistent discipline, poor supervision, and low parental involvement) were associated with poor child outcomes (e.g., conduct problem, aggression, and rule violations) (Dadds, 1995; Dishion, Patterson, Stoolmiller, & Skinner, 1991). While researchers agreed that there was an association between poor parenting practices and negative behavior outcomes in children, there yet to be a consensus amongst researchers on how parenting as a whole influences the development and preservation of behavioral problems in children (Frick & Jackson, 1993). To understand this bigger picture, more research was necessary. This effort was hindered, however, due to the lack of a methodologically sound parenting practice assessment tool. The Alabama Parenting Questionnaire (APQ) was developed in an effort to address this challenge (Essau, Sasagawa, & Frick, 2006).

Created by Paul Frick (1991), the APQ consists of 42 items using a five-point, Likert-type scale – from *never* (1) to *always* (5). The items measure five dimensions of parenting practices (1) positive discipline, (2) positive involvement, (3) monitoring and supervision, (4) utilization of corporal punishment, and (5) consistency of discipline. These dimensions of parenting practice provide useful insight into the association between parenting practices and externalizing problems in children. The APQ has good reliability and validity (Elgar, Waschbusch, Dadds, & Sigvaldason, 2006). Studies that utilized the APQ have reported a reliability score for the five scales ranging between 0.67 to 0.80 (Shelton, Frick, & Wootton, 1996). Further, when used to assess symptoms of Oppositional Defiant Disorder (ODD) and Conduct Disorder (CD) in children, the five

scales of the APQ accounted for 24% of variance in these behavioral problems (Frick, Christian, & Wootton, 1999).

Unfortunately, the number of items (42 items across five scales) made it hard for researchers to utilize the measure and administer repeat measurements. Repeat measurement of parenting practices was important as it provides more insight into the impact of parenting practices on children's behavior over time (Elgar, Waschbusch, McGrath, Stewart, & Curtis, 2004).

To address this challenge, in 2006, Elgar and colleagues developed and validated a short form of the Alabama Parenting Questionnaire (SF\_APQ). To create the measure, the researchers conducted a study using a sample 1,402 parents. These parents were asked to complete all of items in the APQ. Once data were collected, a factor analysis was conducted. The researchers then selected the factors that accounted for the most variance within the scale.

According to analysis, the factors pertaining to positive involvement, discipline, and supervision accounted for the most variance. Together, these factors accounted for 26.31% of the total variance. These factors were singled out and the three items that had the highest loading for each factor were selected. This study resulted in a 9-item measure consisting of three subscales (1) positive parenting, (2) inconsistent discipline, and (3) poor supervision. The SF\_APQ subscales highly corresponded to the full-form APQ scales: Positive Parenting,  $r = 0.89$ ; Inconsistent Discipline,  $r = 0.90$ ; and Poor Supervision,  $r = 0.76$  (Elgar et al., 2006; Gross, Fleming, Mason, & Haggerty, 2015).

To test the reliability of the SF\_APQ, Elgar and colleagues (2006) conducted a study using a sample of 1,367 parents with children ranging between 5 to 12 years of age.

The majority of participants in this study were mothers (94%). The participants had a wide range of educational levels (e.g., 11.27% of mothers and 17.18% of fathers had no high school education, 30.72% of mothers and 27.79% of fathers had a high school education, 32.02% of mothers and 31.95% of fathers had technical school or college education, and 25.96% of mothers and 22.56% of fathers graduated from a university). The participants were asked to fill out the SF\_APQ.

The researchers examined the reliability of each subscale separately by parent's gender. Based on their analysis, the Cronbach alpha of the positive parenting subscale ranged between 0.79 to 0.84 for mothers (94%) and fathers (6%) respectively. The Cronbach alpha of the Inconsistent Discipline subscale ranged between 0.72 to 0.65 for mothers and fathers respectively. Finally, the Cronbach alpha of the Poor Supervision scale ranged between 0.59 to 0.63 for mothers and fathers respectively.

To be consistent with the initial research by Elgar et al. (2006), the current study will treat each subscale within the SF\_APQ as a separate scale and conduct separate analyses for each scale. In other words, I will conduct a separate moderation analysis using each subscale as the dependent variable. Each subscale of the SF\_APQ was computed by taking the sum of the responses of the three questions that comprise each subscale. the questions for each subscale are located in Appendix I.

As mentioned in the previous paragraphs, the *positive parenting* and *discipline* subscales of the SF\_APQ will be used with a sample of participants whose children were older than 5 years old (Sample 1) and the *supervision* subscale will be used with the sample of participants whose children were older than 9 years old (Sample 2). The Cronbach's alpha for the *positive parenting* subscale is 0.81 (n = 312). The range for the

*positive parenting* subscale is between 3 and 15 (M = 12.41, SD = 2.94). The Cronbach's alpha for the *consistent discipline* subscale is 0.77 (n = 312), with the range between 3 and 15 (M = 9.27, SD = 3.04). The Cronbach's alpha for the *good supervising* subscale is 0.81 (n = 172), with the range between 3 and 15 (M = 9.87, SD = 3.60).

**Financial Stress.** Financial stress is the independent variable. Financial stress refers to the amount of stress an individual experienced related to their finances. Income adequacy was used as a proxy for evaluating financial stress. Income adequacy was assessed using a 1-item, five-point Likert-type scale ranging from *not at all adequate* (1) to *can afford about anything wanted (and still save money)* (5). Participants were asked to rate the question “*Thinking about your income now, how adequate do you feel that income is?*”. The income adequacy item was recoded so that a higher number reflected less income adequacy, thus reflecting an experience of greater financial stress as the score increase in value. In other words, the scale was recoded so that 1 corresponded to *can afford about anything wanted and save money*, and 5 corresponded to *not at all adequate*. Due to the recoding, this scale will hence forth be referred to “income inadequacy”. In relating to financial stress, it is expected that as participants experienced less income adequacy (or more income inadequacy), they will experience more financial stress. Thus, a higher score on the income inadequacy measure represented a higher level of financial stress.

Income adequacy was an appropriate measure of financial stress because it allowed the participants to reflect upon their long-term financial health (versus their current situation). This ability to capture participants' long-term financial perspective provides insight into their perception of their overall financial health. Indeed, Rettig,

Danes, and Leichtentritt (1997) noted that income adequacy is a stronger predictor of an individual's emotional stress about finances and thus, a better predictor of financial stress. This measure contributes to the gap identified in the literature review by providing an "insider's" review. In the current study, the range of the income adequacy measure was between 1 and 5. The mean was 2.47 (SD = 1.17) for sample 1 and 2.27 (SD = 1.12) for sample 2.

*The use of single item, global measure.* A single item, global measure (like the one used in this study) has not been widely used in past research studies. One reason for its lack of use was due to concerns amongst researchers regarding the validity of single-item, global measure (Bergkvist & Rossiter, 2007). However, recent research across various fields has found that single-item, global measures have been as effective as multiple items measures. For instance, Bergkvist and Rossiter (2007) conducted a comparative study examining the validity of single-item and multiple-items measures in assessing people's attitude towards brand names. The researchers found no differences between the single-item and multiple item measures in predicating people's attitude towards different brand names. Similarly, Gardner, Cummings, Dunham, and Pierce (1998) compared single-item and multiple-items measures in their ability to assess psychological constructs (e.g., beliefs, attitudes, and perceptions) and found no empirical differences between the two measures. In other words, the researchers concluded that neither measure is empirically better than the other in term of assessing psychological constructs such as the one in this study.

**Co-parenting Alliance.** Co-parenting alliance is the moderating variable. Co-parenting alliance refers to "the extent to which parents perceive that they and their co-

parenting partner are working cooperatively and supportively with each other to fulfill parenting role demands” (Dumka, Prost, & Barrera, 2002, p. 38). Higher scores reflect more coparenting or a stronger coparenting alliance. Participants were asked to rate 13-items using a five-point, Likert-type scale – from *almost never or never* (1) to *almost always to always* (5). Example of items include (1) When there was a problem with your child, you and your co-parent worked together to find the best way to handle it, (2) Your co-parent stood up for you in front of your child, and (3) You and your co-parent talked about what you should do as parents (Dumka, Prost, & Barrera, 2002).

The Co-parenting Alliance measure was computed by taking the mean of the responses to the items with the criterion of 100% completion. In other words, participants need to answered all of the items within the Co-parenting Alliance measure to be included in the analysis. If a participant did not complete all of the items, then that participant’s data was considered ‘missing.’ Since the participants in both samples completed all of the Co-parenting alliance items, this criterion was met for both sample sets. The Cronbach's alpha coefficient for the co-parenting alliance measure was 0.94 for sample 1 and 0.93 for sample 2. The range for the co-parenting alliance measure was between 1 and 5 for both samples. The measure’s mean for sample 1 was 3.41 (SD = 0.84). The measure’s mean for sample 2 was 3.47 (SD = 0.76).

### **Covariates**

Due to the influence it has on one, two, or all of the variables being examined in the current study, I controlled for the following variables:

- (1) **Gender.** Gender was used as a dichotomous variable (0 = male, 1 = female). Sample 1 consisted of 57.1% males and 42.9% females. Sample 2 consisted of 68% males and 32% females.
- (2) **Relationship status.** Relationship status was used as a dichotomous variable (0 = separated or in the process of filing for divorce, 1 = divorced). Pertaining to relationship status, 10.3% of participants in sample 1 stated that they were separated from their partner, 43.6% stated that they were in the process of filing for a divorce, 37.8% indicated that they had filed for a divorce, and 8.3% stated that they had been granted a divorce. Overall 53.8% of participants stated that they were either separated or in the process of filing for a divorce and 46.2% indicated that they were divorced. For sample 2, 6.4% of participants stated that they were separated from their partner, 51.7% stated that they were in the process of filing for a divorce, 35.5% indicated that they had filed for a divorce, and 6.4% stated that they had been granted a divorce. Overall 58.1% of participants in sample 2 indicated that they were separated or in the process of filing for a divorce, and 41.9% of participants stated that they were divorced.
- (3) **Race/Ethnicity.** Participants were asked to describe their race or ethnicity. Responses included: (1) White, (2) Black or African American, (3) Asian, (4) Native Hawaiian or Pacific Islander, (5) Hispanic or Latino, (6) American Indian or Alaskan Native, (7) Middle Eastern, and (8) Other. Participants were allowed to identify with multiple races/ethnicities. For the purpose of this study, participant's race/ethnicity was separated into two dichotomous variables (1) White and other and (2) Black and other. For the White and Other variable, the assigned values are 0 = other and 1 = white. For the Black and Other variable, the assigned values are 0 = other and 1 = black. The racial/ethnic

composition of sample 1 included White (51.6%), African American/Black (27.9%), Hispanic/Latino (5.1%), Asian (1.6%), Native American/Alaskan Native (0.6%), Middle Eastern (0.3%), and 12.8% indicated that they were multicultural (more than 2 races/ethnicities). For sample 2, the racial/ethnic composition included White (47.7%), African American/Black (37.8%), Hispanic/Latino (4.1%), Asian (1.7%), Native American/Alaskan Native (0.6%), and 8.1% indicated that they were multicultural (more than 2 races/ethnicities).

(4) **Education.** Participants were asked about the highest level of education they had obtained. There were six response categories in the survey: (1) do not have a high school degree, (2) high school degree or GED, (3) some college, (4) 2-year college or technical school degree, (5) 4-year college degree, and (6) post-college degree (e.g. Masters, Ph.D., M.D.). Pertaining to education, 0.3% of participants in sample 1 indicated that they did not had a high school degree, 13.5% indicated that they had a high school degree or GED, 17.6% indicated that they had some college education, 11.2% stated that they had a 2-year college or technical school degree, 30.8% stated that they had a 4-year college degree, and 26.6% stated that they had a graduate degree (Master, Ph.D., M.D.). Overall, the majority of participants (86.2%) in sample 1 completed some college education. For sample 2, 0.6% of participants indicated that they did not had a high school degree, 9.9% indicated that they had a high school degree or GED, 11.6% indicated that they had some college education, 9.3% stated that they had a 2-year college or technical school degree, 26.7% stated that they had a 4-year college degree, and 41.9% stated that they had a graduate degree (Master, Ph.D., M.D.). Overall, the majority of participants (89.5%) in sample 2 completed some college education.

(5) **Employment status.** Employment status was used as a dichotomous variable (0 = other, 1 = work full time). Pertaining to employment status, 76.3% of participants in sample 1 indicated that they were working full-time, 9.6% indicated that they were working part-time, 6.7% indicated that they were not working for pay (by choice), 4.2% indicated that they were not working for pay (not by choice), and 3.2% selected “other” when inquired about their employment status. For sample 2, 85.5% of participants indicated that they were working full-time, 5.8% indicated that they were working part-time, 1.7% indicated that they were not working for pay (by choice), 5.2% indicated that they were not working for pay (not by choice), and 1.7% selected “other” when inquired about their employment status.

(6) **Annual income.** Participants were asked to provide their monthly gross income. There were eight categories pertaining to monthly gross income (1) Less than \$1,000 per month, (2) \$1001 - \$1,500 per month, (3) \$1,501 - \$2,000 per month, (4) \$2,001 - \$2,500 per month, (5) \$2,501 - \$3,000, (6) \$3,001 - \$3,500 per month, (7) \$3,501 - \$4,000 per month, and (8) More than \$4,000 per month. This number was multiplied by 12 to provide an annual gross income. In terms of gross annual income, 7.7% participants in sample 1 reported less than \$12,000, 11.9% reported between \$12,001 – \$18,000, 9.3% reported between \$18,001 – \$24,000, 11.5% reported between \$24,001 – \$30,000, 22.4% reported between \$30,001 – \$36,000, 17.6% reported between \$36,001 – \$42,000, 8.3% reported between \$42,001 – \$48,000, and 11.2% reported that their gross annual income is more than \$48,000. As a whole, over half of participants (59.5%) in sample 1 had an annual income greater than \$30,000. For sample 2, 7.0% reported less than \$12,000, 12.2% reported between \$12,001 – \$18,000, 6.4% reported between \$18,001 – \$24,000,

11.6% reported between \$24,001 – \$30,000, 29.7% reported between \$30,001 – \$36,000, 15.7% reported between \$36,001 – \$42,000, 8.1% reported between \$42,001 – \$48,000, and 9.3% reported that their gross annual income is more than \$48,000. As a whole, over half of participants (62.8%) in sample 2 had an annual income greater than \$30,000.

(7) **Conflict during divorce.** Conflict during divorce was measured using a 1-item five-point, Likert-type scale – from much less than other co-parents (1) to much more than other co-parents (5). Participants were asked to describe the amount of conflict that they experienced during their divorce or separation. This question was recoded so that a high value reflected more conflict (e.g., 5 = much more than other co-parents, 1 = much less than other co-parents). Pertaining to the amount of conflict during the divorce/separation process, 19.2% of participants in sample 1 shared that they experienced much more than other co-parents, 25.6% stated that they experienced somewhat more than other co-parents, 40.7% indicated that they experienced about the same amount of conflict as other co-parents, 10.3% stated that they experienced somewhat less than other co-parents, and 4.2% indicated that they experienced much less than other co-parents. For sample 2, 19.8% shared that they experienced much more than other co-parents, 26.2% stated that they experienced somewhat more than other co-parents, 40.1% indicated that they experienced about the same amount of conflict as other co-parents, 9.9% stated that they experienced somewhat less than other co-parents, and 4.1% indicated that they experienced much less than other co-parents.

(8) **Satisfaction with custody arrangement.** Satisfaction with custody arrangement was measured using a 1-item five-point, Likert-type scale – from very dissatisfied (1) to very satisfied (5). The measure was then recoded and used as a dichotomous variable (0 = all

else, 1 = very satisfied). For sample 1, almost half (48.1%) indicated that they were very satisfied, 17.4% indicated that they were somewhat satisfied, 17.0% were neutral, 13.5% indicated that they were somewhat dissatisfied, and 3.8% stated that they were very dissatisfied with their custody arrangement. For sample 2, 61.0% of participants indicated that they were very satisfied with their custody arrangement, 12% stated that they were somewhat satisfied, 16.3% were neutral, 7.6% indicated that they were somewhat dissatisfied, and 2.3% stated that they were very dissatisfied with their custody arrangement.

### **Analysis**

Prior to conducting the moderation analysis, I did a thorough check of the data to ensure quality. For instance, if items were recoded, I made sure that the frequencies of the recoded items matched the original items. I also made sure that the scales (i.e., positive parenting, co-parenting alliance, etc.) contained the appropriate items. Doing a thorough check is a necessary step to ensure quality results. Further, I conducted descriptive statistics and correlations on all variables, including the controls, used in the analyses. I also conducted reliability analyses on the scales used in the study.

The descriptive statistics for Sample 1 are provided in Table 1. The descriptive statistics for Sample 2 are provided in Table 2. Table 3 provides the correlations between the variables for sample 1. Similar to Table 3, Table 4 provides the correlations for all variables used in the study for sample 2. Since moderation is a form of regression (Hayes, 2013), I checked to ensure that the two samples met the assumptions for regression, including (1) linearity (2) normality (3) homoscedasticity and (4) independence. Both samples met the assumptions of regression.

## Moderation

As mentioned earlier, moderation analysis is employed when researchers are interested in investigating whether the predictive strength of one variable on another variable is impacted when a third variable, the moderating variable, is introduced into the model (Hayes, 2012). Conceptually, moderation is illustrated by drawing an arrow from the independent variable to the dependent variable, and drawing an arrow from the moderating variable to the arrow connecting the independent variable and dependent variable (please see Figure 1 for the conceptual model of the moderation of this study). The conceptual model for moderation, however, is not the same as the analytical model for moderation. To illustrate how moderation is tested statistically, a different model is required. This model need to reflect the mathematical equation of moderation (equation 1), which takes the form of:

$$Y = i + \beta_1 X + \beta_2 M + \beta_3 XM + e_y \quad (1)$$

The above equation is a regression line in which, **Y** represents the dependent variable, **i** is the intercept,  **$\beta_1$**  is the slope of the independent variable, **X** is the independent variable,  **$\beta_2$**  is the slope of the moderating variable, **M** is the moderating variable,  **$\beta_3$**  is the slope of the interaction term (the product of the independent and moderating variable), **XM** is the interaction term, and  **$e_y$**  is the error. Pertaining to this particular study, equation one could be rewritten as (equation 2):

$$\begin{aligned} \text{Parenting Quality} = i + \beta_1 (\text{financial stress}) + \beta_2 (\text{co-parenting alliance}) + \\ \beta_3 (\text{financial stress} \times \text{co-parenting alliance}) + e_y \end{aligned} \quad (2)$$

Testing moderation involved regressing the independent, moderating, and interaction term variables onto the dependent variable. Pertaining to this study, testing moderation involved the regressing of (1) financial stress onto parenting quality, (2) co-parenting alliance onto parenting quality, and (3) interaction term (financial stress x co-parenting alliance) onto parenting quality. Since parenting quality consisted of three scales (i.e., positive parenting, consistent discipline, and good supervision), it was necessary to conduct three different moderation analyses. Figure 2 provides the analytical models of the current study. In this study, I am using SPSS 23 with the PROCESS add-on to conduct my moderation analyses.

## **PROCESS**

Developed by Andrew Hayes, Ph.D. (Professor of Quantitative Psychology at The Ohio State University), PROCESS is a powerful, computational procedure designed specifically for mediation and moderation analyses. Utilizing logistic/ordinary least square (OLS) regression-based analytic framework, PROCESS has the capability of producing many estimates pertaining to mediation and moderation, including but not limited to, direct and indirect effects (for mediation), two and three way interactions (moderation), simple slopes (moderation), and regions of significant (moderation). Along with the ability to conduct simple mediation and moderation analyses, PROCESS is also capable of analyzing more complex mediation/moderation models (e.g., moderated mediation, and models that contained multiple mediators/moderators) (Hayes, 2016).

PROCESS is free and could be downloaded from <http://www.afhayes.com/>. PROCESS is an add-on tool that can be installed onto such mainstream statistical software as SPSS and SAS (Hayes, 2012). PROCESS is a trusted tool and has been used

in various research studies exploring mediation, moderation, as well as other (more complex) models (Fairchild & MacKinnon, 2009; Hayes, 2013; Preacher & Hayes, 2004).

### **Traditional Approach to Testing Moderation**

Traditionally, moderation is tested by conducting a series of regression analyses in which the researcher builds the model in steps. Following this approach, the researcher first regresses the independent (X) and moderator (M) variable (along with the covariates) onto the dependent (Y) variable; resulting in model 1. Once that is done, the researcher then adds the interaction term, the product of the independent variable and moderator variable (XM), to the model and regresses that onto the dependent variable; resulting in model 2. This approach is also known as *hierarchical regression*. To determine whether or not moderation occurs (or if M moderates the effect of X on Y) the researcher would examine the estimated  $R_1^2$  of model 1 and the estimated  $R_2^2$  of model 2. Moderation occurs if  $R_2^2$  is significantly larger than  $R_1^2$ ; resulting in a significant total increase in  $R^2$  (or change in  $R^2$ ). In other words, adding the interaction term produced a significantly better model than not including the interaction term, which provides evidence for moderation (Barron & Kenny, 1986; Hayes, 2013).

The traditional approach to moderation analysis requires the researcher to carry out multiple calculations, above and beyond the initial calculations needed to obtain  $R^2$  estimates for model 1 and 2. For instance, the researcher needs to manually create the interaction variable to be used to calculate the  $R^2$  estimates in model 2. The researcher would also need to calculate the change in  $R^2$  to determine the change of variance that occurred within the model after the introduction of the moderator and calculate the p-

value to determine whether or not it was significant (Barron & Kenny, 1986; Hayes, 2013). With the advancement of technology and sophisticated statistical software (e.g., SPSS) this process can now be done more easily. However, even with SPSS, researchers would still need to carry out additional calculations (e.g., creating the interaction term, change of  $R^2$ , etc.) to be able to meaningfully interpret the result (Hayes, 2013).

### **Advantage of PROCESS**

With PROCESS researchers can now eliminate many of the manual calculations required for moderation modeling. For instance, PROCESS automatically calculates an interaction term, change in  $R^2$ , conditional effects, and also allows researchers to “mean center” the model.

**Conditional effect.** Conditional effect is an additional statistical analysis that allows the researcher to further probe the model at different values of the moderator (e.g., low, medium, and high) once evidence of moderation is established. For instance, in this study, if I found evidence that co-parenting alliance moderated the relationship between financial stress and parenting quality, then I could use conditional effect to further explore the magnitude of the effect that financial stress had on parenting quality at different levels (e.g., low, medium, and high) of co-parenting alliance. This is a very helpful tool as it provides further insight into the role of co-parenting alliance as a moderator between the financial stress and parenting quality.

**Mean centering.** Mean centering is the process of transforming a variable (or group of variables) into deviation around a mean. This is done by taking the score of each participant for that variable and subtracting it from the mean of said variable (Field, 2013), resulting in that variable having a mean of zero. Mean centering does not change

the distribution of the data, nor does it alter the slope of a regression line. It is simply a method of shifting the data so that the mean is centered at zero. Centering is extremely helpful when continuous variables are used in the moderation analysis for it allows the researchers to derive meaningful interpretation of the result, especially in this particular study. The variables used in this study are continuous with no possible 'zero' score. In other words, participants would not be able to score a 'zero' on any of the scales used in this study. Thus, when examining a regression analysis where the interpretation of the effect of a particular predictor on the dependent variable requires an assumption of a 'zero' score on another variable, mean centering would make this interpretation more meaningful. Translating this information to this study, when I explain the effect of financial stress on parenting quality alone (which requires me to assume a zero score on the co-parenting alliance measure), I am able to do that meaningfully when zero represents the mean (since participants could not score a zero on this measure).

In addition to the ability to calculate many estimates automatically, PROCESS also provides the researchers with data to construct a visual presentation of the conditional effect. This is really helpful as it helps further illustrate the impact of moderation (Hayes, 2012, 2013). Additionally, PROCESS allows researchers to load all of the variables into the analysis at one time. While the traditional approach to moderation analysis advocates for the loading of the variables in steps, this approach is not necessary to test for moderation. It is possible to test for moderation by loading all of the variables at once (Hayes, 2013).

### **Using PROCESS**

For the purpose of demonstrating how PROCESS works, I would like to take a moment to provide a quick walkthrough on how to use PROCESS. Since I am using SPSS 23, I will demonstrate how to use PROCESS in SPSS 23. In addition to verbally describing the procedure required to use PROCESS, I have also included a screen capture of PROCESS for visual aid.

Once PROCESS is downloaded and installed, the tool can be accessed by going to Analysis, then Regression, and finally PROCESS (please see step 1 for visual). Click on the “PROCESS” option to get to the “PROCESS” interface. Aside from the statistical advantages, PROCESS also has an easily used point-and-click interface.

To conduct moderation analysis using PROCESS, select 1 for the model number and then load the appropriate variables to the appropriate field. For example, load the dependent variable in the “outcome variable” field, independent variable in the “independent variable” field, moderator/mediator variable in the “M” field, and controls in the “covariates” field). Once that is done, click on the “option” to select additional estimates. Similar to the “options” feature, the “conditioning” feature will also contain additional calculation choices. Once you are all done, click on the “Okay” button to run the analysis (please see step 2 for visual).

To save space, I will not go into detail on the different estimate options available in PROCESS. For more detail descriptions on the “Option” feature in PROCESS and a more thorough walkthrough on how to conduct PROCESS, please refer to the work of Hayes (2013) and Field (2013). Field (2013) provides a thorough walkthrough on how to use PROCESS to conduct both mediation and moderation. Hayes (2013) provides more

detail about PROCESS, what the different models means, and suggestions on model selections.

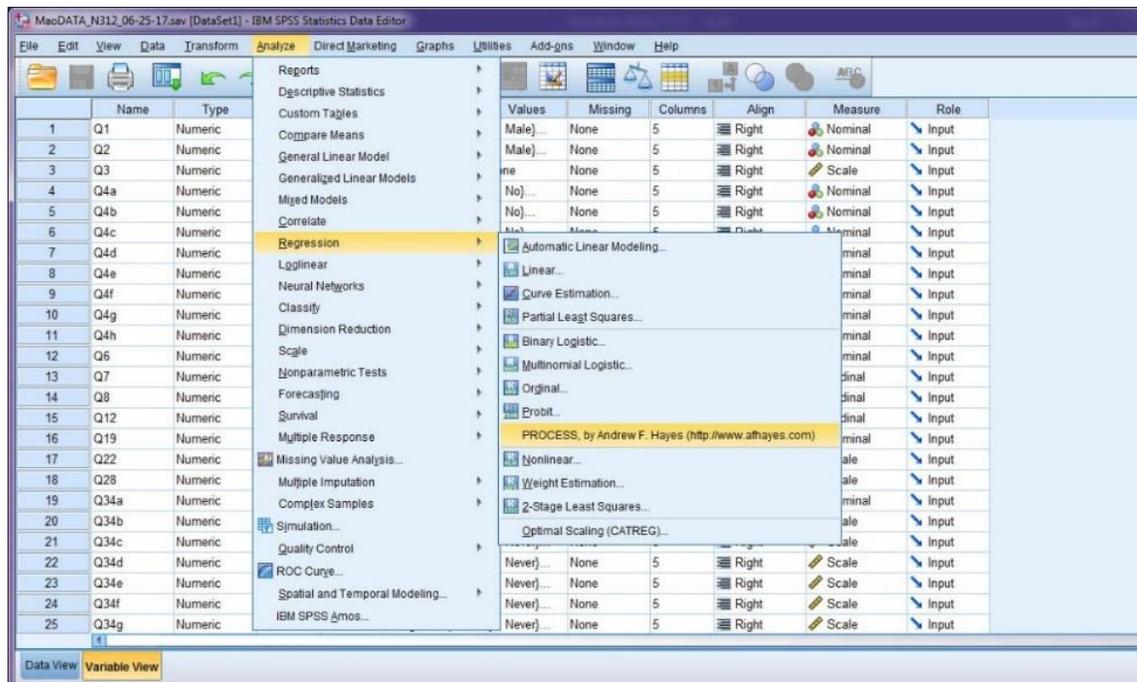
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## Visual 1

*Brief walkthrough on how to conduct Moderation using PROCESS*

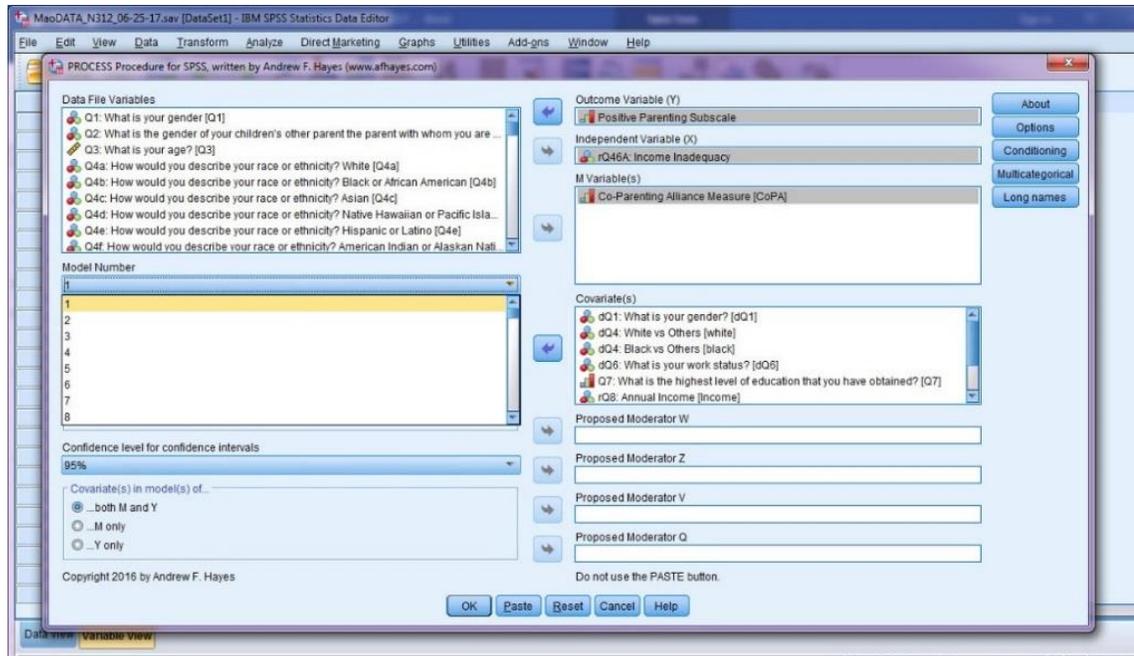
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Step 1: Analyze → Regression → PROCES



Step 2: For this study: Model number = 1, Outcome variable = Positive parenting, Independent variable = Income inadequacy, Moderator (M) variable = Co-parenting alliance, Covariates = please see controls.

---



## Results

Table 5 summarizes the results from the analyses. I will discuss the results for each model separately.

### Model 1

In Model 1, I explored the effect of financial stress on positive parenting and the potential moderation effect of co-parenting alliance on that relationship. In other words, I examined the impact of financial stress on positive parenting to see if the strength of that impact changes when co-parenting alliance is taken into consideration.

As can be seen in Table 5, there is a significant, positive association between financial stress and positive parenting ( $\beta_1 = 0.365, p < 0.015$ ). A positive relationship indicates that as the score of one variable increased, the score of the other variable also increased. In terms of my study, the regression results showed that, for parents who had a mean score on the co-parenting alliance measure, the more they experienced financial

stress, the more they practiced positive parenting skills. More specifically, one-unit increase in financial stress was associated with a 0.365-unit increase in positive parenting. This result did not support Hypothesis 1 of this study, which predicted a negative association between financial stress and parents' ability to practice positive parenting.

In terms of co-parenting alliance, the regression results showed a significant, positive association ( $\beta_2 = 0.960, p < 0.001$ ). In other words, for parents who had a mean score on financial stress, the more they felt that they were in alliance with their co-parent, the more they practiced positive parenting. More specifically, one-unit increase in co-parenting alliance was associated with a 0.960-unit increase in positive parenting. This result provided support for Hypothesis 2, which predicted a positive association between co-parenting alliance and parent's ability to practice positive parenting.

Lastly, when examining whether or not co-parenting alliance moderated the effect of financial stress on positive parenting, moderation analysis did not provide evidence of such moderation. As can be seen in Table 5, the *p*-value for the interaction term (financial stress x co-parenting alliance) is 0.101, which is greater than 0.05. This result did not support hypothesis 7, which predicted a moderation effect between financial stress and positive parenting.

## **Model 2**

In Model 2, I explored the effect of financial stress on consistent discipline and the potential moderation effect of co-parenting alliance on that relationship. In this model, I investigated the impact of financial stress on parents' ability to provide consistency when disciplining their children and whether or not their assessment of their

co-parenting alliance influenced this relationship. I predicted, per Hypothesis 3, that as parents experience more financial stress, they would be less likely to practice consistent discipline within their parenting practices. In other words, I predicted a negative association between financial stress and consistent discipline parenting practice.

The regression results indicated a significant, positive relationship between financial stress and consistent discipline ( $\beta_1 = 0.452, p < 0.01$ ). According to this result, for parents who had a mean score on the co-parenting alliance measure, the more the parent experienced financial stress, the more they practiced consistent discipline. More specifically, one-unit increase in financial stress was associated with a 0.452-unit increase in consistent discipline parenting practice. This result did not support Hypothesis 3 of this study, which predicted a negative association between financial stress and parents' ability to practice consistent discipline.

When co-parenting alliance was examined, the analysis showed a non-significant, negative association ( $\beta_2 = -0.483, p < 0.051$ ). It is worthwhile to note that although the *p*-value is more than 0.05, it is barely above the threshold. It could be said that the relationship between co-parenting alliance and consistent discipline is approaching significance. Nevertheless, since the *p*-value is above the threshold of 0.05, it could be concluded that the relationship between co-parent alliance and consistent discipline parenting practice was non-significant. This result did not support Hypothesis 4, which predicted a significant, positive association between co-parenting alliance and consistent discipline parenting practice.

Lastly, pertaining to the moderating effect of co-parenting alliance on the relationship between financial stress and consistent discipline, the analysis showed a

significant, positive relationship ( $\beta_3 = 0.424, p < 0.05$ ). Further, analysis showed that the value of  $R^2$  increased by 0.020 ( $\Delta R^2 = 0.020$ ) when the interaction term was introduced into the model. This result indicated that the effect of financial stress on whether or not parents consistently disciplined their children depended on parents' perception of their co-parenting alliance. This result provides support for Hypothesis 7, which predicted a moderation effect between financial stress and consistent discipline.

To better understand the nature of this moderating effect, it is necessary to conduct a simple slope (or conditional effect) analysis (Aiken & West, 1991). Conditional effect analysis is the process of examining the effect of the independent variable on the dependent variable at different levels of the moderator. Pertaining to this study, conditional effect analysis allowed me to examine the effect of financial stress on consistent discipline parenting practice at low, average (mean), and high levels of co-parenting alliance. Table 6 contains the estimates for the effect of financial stress on consistent discipline parenting practice at different levels of co-parenting alliance. Figure 3 provides a visual representation of the conditional effect.

In Figure 3, the blue line represents the effect of financial stress on consistent discipline practice among parents who scored low (i.e., one standard below the mean) on the co-parenting alliance measure. The green line represents the effect of financial stress on consistent discipline practice among parents who had the average (mean) score on co-parenting alliance measure. Finally, the red line represents the effect of financial stress on consistent discipline practice among parents who scored high (i.e., one standard deviation above the mean) in the co-parenting alliance measure.

As shown in Table 6 (and visually represented in Figure 3), there is a positive, significant relationship between financial stress and consistent discipline parenting practice when co-parenting alliance is at the mean ( $\beta = 0.452, p < 0.05$ ). Similarly, there is a positive, significant relationship between financial stress and consistent discipline parenting practice when co-parenting alliance is one standard deviation above the mean ( $\beta = 0.806, p < 0.05$ ). However, there is no significant relationship between financial stress and consistent discipline parenting practice when co-parenting alliance is one standard deviation below the mean ( $\beta = 0.098, p = 0.628$ ). This result indicates that the relationship between financial stress and consistent discipline parenting practice only occurred in parents who have average or high levels of co-parenting alliance.

### **Model 3**

Finally, in Model 3, I investigated the effect of financial stress on good supervision and the potential moderation effect of co-parenting alliance on that relationship. In other words, I explored the impact of financial stress on parent's ability to effectively supervise their children and whether or not their assessment of their co-parenting alliance influenced this relationship. I predicted, per Hypothesis 5, a negative association between financial stress and good supervision parenting practice.

As can be seen in Table 5, there is a significant, positive association between financial stress and good supervision ( $\beta_1 = 0.753, p < 0.05$ ). These results show that, for parents who had a mean score on the co-parenting alliance measure, the more they experienced financial stress, the more they practiced good supervision parenting skills. More specifically, a one-unit increase in financial stress was associated with a 0.753-unit increase in good supervision. This result did not support Hypothesis 5 of this study,

which predicted a negative association between financial stress and parents' ability to provide good supervision to their children.

Pertaining to the association between co-parenting alliance and good supervision, the analysis showed a non-significant, negative association ( $\beta_2 = -0.593, p < 0.114$ ). This result does not support Hypothesis 6, which predicted a significant, positive association between co-parenting alliance and good supervision.

Lastly, regarding the moderating effect of co-parenting alliance on the relationship between financial stress and good supervision, the analysis showed a significant, positive relationship ( $\beta_3 = 0.854, p < 0.01$ ). Further, analysis showed that the value of  $R^2$  increased by 0.036 ( $\Delta R^2 = 0.036$ ) when the interaction term was introduced into the model. This result indicated that the effect of financial stress on whether or not parents provided good supervision to their children depended on parents' perception of their co-parenting alliance. This result provides support for Hypothesis 7, which predicted a moderation effect between financial stress and good supervision. Similar to Model 2, to fully understand the nature of this moderation, it is necessary to examine the conditional effect.

Table 7 contains the estimates for the effect of financial stress on good supervision at different levels of co-parenting alliance. Figure 4 provides a visual representation of the conditional effect. Similar to Figure 3, in Figure 4, the blue line represents the effect of financial stress on good supervision practice among parents who scored low (i.e., one standard below the mean) on the co-parenting alliance measure. The green line represents the effect of financial stress on good supervision practice among parents who had a mean score on co-parenting alliance measure. Finally, the red line

represents the effect of financial stress on good supervision practice among parents who scored high (i.e., one standard deviation above the mean) in the co-parenting alliance measure.

As shown in Table 7 (and visually represented in Figure 4), there is a positive, significant relationship between financial stress and good supervision when co-parenting alliance was at the mean ( $\beta = 0.753, p < 0.01$ ). Similarly, there is a positive, significant relationship between financial stress and good supervision when co-parenting alliance was one standard deviation above the mean ( $\beta = 1.401, p < 0.01$ ). However, there was no significant relationship between financial stress and good supervision when co-parenting alliance was one standard deviation below the mean ( $\beta = 0.106, p < 0.750$ ). This result indicates that the relationship between financial stress and good supervision only occurred in parents who have average or high levels of co-parenting alliance.

## **Discussion**

In this study, I explored the relationship between the perception of financial stress (measured by income inadequacy), parenting quality (measured by positive parenting, consistent discipline, and good supervision), and the moderating effect that cooperative co-parenting (measured by co-parenting alliance) had on that relationship during the process of divorce (including stages of separation, filing for divorce and post-divorced). Research over the past four decades has shown that families going through the divorce process experience a decline in financial resources (McManus & DiPrete, 2001; Smock, 1994; Weitzman, 1985) as well as a decrease in parenting quality (Harold & Conger, 1997; KlinePruett et al., 2003; Sturge-Apple et al., 2003). A decrease in financial

resources often leads to an increase in financial stress for families, particularly for parents. This, in turn, hinders the parents' ability to provide quality parenting to their children. Indeed, studies showed that when parents experience financial stress (as the result of a decline in financial resources), their ability to provide quality parenting (e.g., to effectively discipline and monitor their children) decreases (Bank et al., 1993; Simons & Associates, 1996).

Surprisingly, these results were not what I found in this study, however. My analyses showed a significant, positive relationship between financial stress and all three indicators of parenting quality (i.e., positive parenting, consistent discipline, and good supervision). I found that as parents experienced more financial stress, they tended to practice more positive parenting, provide more consistent discipline, and supervised their children better. This study finds itself in a unique situation of both contradicting as well as contributing to the literature.

Perhaps one reason why the results of this study did not align with the literature was due to the fact that the participants in this study were highly educated. Being highly educated might provide parents with opportunities to reflect on their parenting roles and be more aware about how their actions influence their children's well-being. Further, being educated might also gave parents access to professionals (e.g., therapists, psychologists, etc.) and other social support that they could tap into in times of need to help them reduce stress and improve their parenting skills. Studies have found that having access to social support helps parents reduce stress and improve the quality of the parent-child relationship for both fathers and mothers (Riggio, 2004).

Another possible explanation might be related to the ambiguity of their financial situation. In the current study, the majority of parents (91.7% in sample 1 and 93.6% in sample 2) were still going through the process of marital dissolution (i.e., had not yet been granted a divorce). Since these parents were still going through the marital dissolution process, they were most likely unsure about the impacts their divorce would have on their financial situation. This ambiguity would most understandably lead to financial stress. However, if one considers the relatively high level of education of the parents in this study's sample, another explanatory scenario is possible. Perhaps the financial ambiguity or stress combined with their education levels might lead them to cognitively differentiate their relative control over their finances and parenting. Parents might reason that although they have little to no control over their finances during the process of divorce, they can exert control over how they parent their children. They may be critically aware of the potential impact of the divorce process on their children and thus choose to focus intentionally on their relationships with them. This hyper-focus might actually lead them to improve their monitoring, more consistently discipline, and increase their praise.

A third explanation might be parental compensation. Marital dissolution is a difficult and stressful process for both the parents and their children. Perhaps in an attempt to shield their children from the stress of marital dissolution, parents over-compensate by paying more attention to their children. This in turn, would result in more praising, closer supervision, and more consistent parenting (including consistent discipline).

In addition to being highly educated, parents in this study also reported having more satisfaction with their custody arrangement. For instance, in sample 1, almost half (48.2%) of parents reported that they were very satisfied with the custody arrangement and about 17.4% of parents indicated that they were somewhat satisfied with their custody arrangement. In sample 2, more than half of the participants (61%) reported that they were very satisfied with their custody arrangement and about 12.8% reported that they were somewhat satisfied with their custody arrangement. Satisfaction with custody arrangement could be an indicator of a good interparental relationship. Having a good relationship with the other parent might also reduce the effect of financial stress because there is more assurance that financial support will be given when needed. This, in turn, would allow parents to focus more attention on their children and their children's adjustments as they go through this difficult life event.

Past research also found that parents experience more conflict within the co-parenting partnership (Baum & Shnit, 2003; Maccoby et al., 1993; Sbarra & Emery, 2008) following marital dissolution. However, research also has shown that if parents was able to work together cooperatively, they can reduce many of the negative effects of marital dissolution on the overall well-being of their family. For instance, when parents work together cooperatively, they are able to reduce the 'gatekeeping' behavior (Pruett et al., 2003), reduce the stress of marital dissolution on their children (Diogo & Barbara, 2011), and decrease the likelihood of disengagement and discontinuation of financial support from the non-custodial parent (Seltzer, 1991). Social Exchange Theory (SET) provided a theoretical framework for understanding why it is advantageous for parents to work together and the process that parents go through as they negotiate their post-divorce

relationship. According to SET, parents want to maximize the reward and minimize the cost (Sabatelli & Shehan, 2004) associated with marital dissolution. The reward, in this case, is the well-being of their children; a way to get there is by working together to fulfill their parental obligations.

Since financial stress negatively impacts the overall quality of parenting practices (Bank et al., 1993; Simons & Associates, 1996) and cooperative parenting reduces the likelihood of disengagement from financial support (and thus, decreases the financial stress), it is reasonable to assume that cooperative parenting will positively contribute to overall parenting quality. Indeed, this was the assumption of the Parenting Alliance Theory (PAT), which states that a strong parenting alliance can serve as a buffer (or moderator) to the stress caused by marital dissolution (e.g., finance) on parenting behavior (e.g., parental practices) (Konold & Abidin, 2001).

In my analyses, I found that co-parenting alliance only moderated the effect of financial stress on discipline and supervision aspects of parenting quality. Co-parenting alliance did not moderate the effect of financial stress on the positive parenting aspect of parenting quality. Upon further investigation of the nature of the moderation (i.e., examining the conditional effects), the analyses revealed that financial stress only significantly impacted the consistency of discipline and the quality of supervision when co-parenting alliance was at the mean or one standard deviation above the mean. In other words, when the sample was divided into three groups based on co-parenting alliance score (low, mean, high), financial stress only significantly impacted the consistency of discipline and quality of supervision for those parents who scored at the mean and higher on their co-parenting alliance measure. For those parents who scored low on their co-

parenting alliance measure, there was no evidence that supported a significant relationship between financial stress and consistent discipline and good supervision. Further, for the group of parents who had a mean score or higher on their co-parenting alliance measure, the level of co-parenting alliance corresponded with the level of consistency in their discipline practices and quality of supervision. In other words, as parents had a more positive alliance with their co-parent, they tended to be more consistent in their discipline practices and they provided better supervision. This result is another contribution to the literature. The result also supported the assumptions of the Parenting Alliance Theory. According to PAT, a strong alliance between the parents will increase the quality of their parenting. As shown in the results, when parents felt that they had a strong alliance with the other parent, they tended to provide better parenting quality by being more consistent with their discipline and provide good supervision. Interestingly, parenting alliance did not moderate the relationship between financial stress and positive parenting. One possible explanation might be that positive parenting is more verbal (i.e., praise) while discipline and supervision are more behavioral. It might not be necessary for parents to have a cooperative relationship with the other parents for them to provide positive verbal feedback to their children.

### **Limitations**

While this study provided some important insights into parenting during the process of divorce, there are some limitations that warrant discussion. The most important limitation is the education level of the participants in this study. The majority of the participants in this study (86.2% in sample 1 and 89.5% in sample 2) had some college education. Further, over half of the participants (57.4% in sample 1 and 68.6% in

sample 2) completed at least a 4-year degree. These percentages are high compared to other studies that have examined the association between finances and parenting quality (See Bank et al., 1993; Simmons et al., 1996).

A second limitation is the potential sample bias. While recruiting via Qualtrics is cost effective and studies had indicated little differences between online recruitment methods like the one utilized by Qualtrics and traditional methods (Clifford & Jerit, 2014; Dworkin et al., 2016), online recruitment still presents potential sample bias. For instance, online recruitment is biased towards those who have access to, and who are proficient with, computers and/or other technologies that allow for internet access. Access to these technologies would require both a sufficient level of education as well as a sufficient amount of income. Further, since the survey is in English, this recruitment method is limited to those who are proficient in English (and thus exclude those who are English learners). A third limitation is racial/ethnicity makeup of the samples. Participants in this study identified primarily as “White” (51.6% for sample 1 and 47.7% for sample 2). The second largest sample were those who identified as “Black/African American” (27.9% for sample 1 and 37.8% for sample 2). There was very little representation of other race/ethnicities.

It is also worthwhile to note that the majority of participants in this study were going through the marital dissolution process. That is, the majority of participants (91.7% for sample 1 and 93.6% for sample 2) had not been granted a divorce. Participants who are still going through the marital dissolution process might be different from those who have gone through the marital dissolution process (e.g., been granted a divorce). Due to

these limitations, caution should be exercised when generalizing the results of this study to other population groups.

### **Implications**

Despite the limitations, this study provides insights into the relationship between financial stress, parenting quality, and the moderating effect of co-parenting alliance within a group of parents who are going through marital dissolution (defined as separated, divorced, or in the process of divorcing) and who are highly educated. One important finding of this study is the impact of co-parenting alliance on consistent discipline practices and quality supervision parenting practices. In that, parents who felt that they were well aligned with their co-parents tended to also be more consistent in their discipline practices and were better at supervising their children. Given that a significant percentage (91.7% in sample 1 and 93.6% in sample 2) of these parents are still going through the divorce process (i.e., divorce had not yet been granted), this finding is especially important. This is a critical stage for parents to work together to set positive parenting patterns. Professionals and family practitioners working with families going through the divorce process might benefit from this insight as they work with these parents to develop positive parenting patterns and improve their parenting skills.

This study also provides some direction for future studies in this area. For instance, this study found a positive relationship between financial stress and parenting quality, but the reason behind this is unclear. Future studies could shed some light onto this mystery. Additionally, future studies would benefit from capturing the perspectives of both parents (instead of one, as was done in this study). Having the perspectives of both parents would provide a more comprehensive insight into the degree of financial

stress parents experience, the strength of the co-parenting alliance, and the nature the parenting practice. This, in turn, will allow researchers to better understand the relationship between financial stress, co-parenting alliance, and parenting quality.

Further, this study utilized a cross-sectional data. Cross-sectional data could only provide associations between variables, not causation. Future studies might benefit from using longitudinal data that tracks these parents over time. This will allow researchers to examine if the relationship between financial stress, co-parenting alliance, and parenting quality holds over time for parents who have high levels of education. Moreover, since the current study contained mostly White and African American/Black participants, future studies might benefit from having a more diverse sample. Having a diverse sample would strengthen and improve generalizability of the results. Additionally, this study utilized co-parenting alliance as a moderator. While this provided some significant results, there may be other variables that could better serve as moderator. For instance, social support might better moderate the relationship between financial stress and parenting quality. Future studies might measure social support and investigate its moderating effect.

Since many studies in this vein of research tend to primarily use female samples (vs. men) (e.g., McLanahan, & Thomson, 1998; Morgan, 1991; Nestel, Mercier, & Shaw, 1983; Smock, 1993), future studies might consider obtaining a sample of both women and men to compare and see if differences exist. Last, but certainly not least, future studies might benefit from exploring the same relationship within a different population (e.g., Southeast Asians, Asians, Hispanic/Latino, etc.) to see if this relationship holds true within these communities.

## **Conclusion**

Marital dissolution can be a chaotic, stressful, and painful time for families (at least at the beginning stage). Further, marital dissolution tends to exert negative effects on many aspects of family life including, but not limited to, finance, co-parenting relationship, and parenting quality. Despite of this, it is possible (and necessary) for parents to provide quality parenting to their children throughout this process. One way parents could do this is by working together cooperatively with the other parent. Indeed, the results of this study found that parents who have mean to high co-parenting alliance score tend to provide better parenting quality in the area of consistent discipline and quality supervision.

Another possible way is to cultivate protective factors that could help shield against other adversities that could impact their parenting quality. For instance, past studies found that financial stress tends to negatively influence parenting quality (Bank et al., 1993; Simons & Associates, 1996). However, this study found that, for parents who have high levels of education, financial stress is positively associated with parenting quality. Although the reasons why can only be speculated, this study did show that education seemed to serve as a protective factor against the adverse effect of financial stress on quality parenting.

One way that parents could cultivate the benefit of education is by attending parenting class during or after the marital dissolution process. Indeed, research showed that parents who attended parenting education class improved both relationships with their co-parents (Bacon & McKenzie, 2004; Becher et al., 2014) as well as their parenting quality (Becher et al., 2014).

Table 1

*Demographic Characteristics of Participants (N = 312)*

Characteristic	n	%
Gender		
Male	178	57.1
Female	134	42.9
Relationship status		
Separated	32	10.3
In the process of filing for divorce	136	43.6
Filed for divorce	118	37.8
Divorced has been granted	26	8.3
Race/Ethnicity		
White	161	51.6
African American/Black	87	27.9
Hispanic/Latino	16	5.1
Asian	5	1.6
Native American/Alaskan Native	2	0.6
Middle Eastern	1	0.3
Multicultural (2+ races/ethnicities)	40	12.8
Your age		
21 – 30	75	24.1
31 – 40	188	60.3
41 – 50	37	11.7
51 and older	12	3.8
Age of your children		
05 - 10	187	59.9
11 – 15	120	38.5
16 - 17	5	1.6

Highest education level completed		
Do not have a high school degree	1	0.3
High school degree or GED	42	13.5
Some college	55	17.6
2-year college or technical school degree	35	11.2
4-year college degree	96	30.8
Graduate degree (Master, Ph.D., M.D.)	83	26.6
Employment status		
Working full-time	238	76.3
Working part-time	30	9.6
Not working for pay (by choice)	21	6.7
Not working for pat (not by choice)	13	4.2
Other	10	3.2
Gross annual income (\$)		
Less than \$12,000	24	7.7
\$12,001 – \$18,000	37	11.9
\$18,001 – \$24,000	29	9.3
\$24,001 – \$30,000	36	11.5
\$30,001 – \$36,000	70	22.4
\$36,001 – \$42,000	55	17.6
\$42,001 – \$48,000	26	8.3
More than \$48,000	35	11.2
Conflict experienced during divorce/separation		
Much less than other co-parents	13	4.2
Somewhat less than other co-parents	32	10.3
About the same as other co-parents	127	40.7
Somewhat more than other co-parents	80	25.6
Much more than other co-parents	60	19.2

Satisfaction with custody arrangement

Very dissatisfied	12	3.9
Somewhat dissatisfied	42	13.5
Neutral	53	17.0
Somewhat satisfied	54	17.4
Very satisfied	150	48.2
Missing	1	0.3

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Table 2

*Demographic Characteristics of Participants (N = 172)*

Characteristic	n	%
<b>Gender</b>		
Male	117	68
Female	55	32
<b>Relationship status</b>		
Separated	11	6.4
In the process of filing for divorce	89	51.7
Filed for divorce	61	35.5
Divorced has been granted	11	6.4
<b>Race/Ethnicity</b>		
White	82	47.7
African American/Black	65	37.8
Hispanic/Latino	7	4.1
Asian	3	1.7
Native American/Alaskan Native	1	0.6
Middle Eastern	0	0.0
Multicultural (2+ races/ethnicities)	14	8.1
<b>Your age</b>		
21 – 30	31	18
31 – 40	114	66.2
41 – 50	18	10.5
51 and older	9	5.3
<b>Age of your children</b>		
09 - 10	47	27.3
11 – 15	120	69.8
16 - 17	5	2.9

Highest education level completed		
Do not have a high school degree	1	0.6
High school degree or GED	17	9.9
Some college	20	11.6
2-year college or technical school degree	16	9.3
4-year college degree	46	26.7
Graduate degree (Master, Ph.D., M.D.)	72	41.9
Employment Status		
Working full-time	147	85.5
Working part-time	10	5.8
Not working for pay (by choice)	3	1.7
Not working for pay (not by choice)	9	5.2
Other	3	1.7
Gross Annual income (\$)		
Less than \$12,000	12	7.0
\$12,001 – \$18,000	21	12.2
\$18,001 – \$24,000	11	6.4
\$24,001 – \$30,000	20	11.6
\$30,001 – \$36,000	51	29.7
\$36,001 – \$42,000	27	15.7
\$42,001 – \$48,000	14	8.1
More than \$48,000	16	9.3
Conflict Experienced During Divorce/Separation		
Much less than other co-parents	7	4.1
Somewhat less than other co-parents	17	9.9
About the same as other co-parents	69	40.1
Somewhat more than other co-parents	45	26.2
Much more than other co-parents	34	19.8

Satisfaction with custody arrangement

Very dissatisfied	4	2.3
Somewhat dissatisfied	13	7.6
Neutral	28	16.3
Somewhat satisfied	22	12.8
Very satisfied	105	61.0

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Table 3

*Correlations and Descriptive Statistics (including controls) for Sample 1*

Variables	1	2	3	4	5	6	7	8	9	10	11	12
1. Gender	—											
2. White vs. Others	.272**	—										
3. Black vs. Others	-.386**	-.645**	—									
4. Work Status <sup>a</sup>	-.413**	-.164*	.198**	—								
5 Edu. Level	-.458**	-.348**	.464**	.464**	—							
6. Annual Gross Inco.	-.357**	-.113*	.012	.365**	.430**	—						
7. Rel. Status <sup>b</sup>	.211**	.171*	-.290**	-.074	-.195*	-.032	—					
8. Custody <sup>c</sup>	-.115*	-.264**	.315**	.103	.234**	-.028	-.132*	—				
9. Conflict <sup>d</sup>	-.046	-.083	.004	.061	.093	.047	-.015	.046	—			
10. IA <sup>e</sup>	.319**	.225**	-.195*	-.297**	-.375**	-.285**	.076	-.131*	.043	—		
11. PP <sup>f</sup>	.301**	.139*	-.229**	-.178*	-.164*	.078	.218**	-.183*	.076	.187*	—	
12. CD <sup>g</sup>	.123*	.168*	-.072	-.113*	-.115*	-.119*	-.039	-.115*	-.094	.228**	-.071	—
13. CoPA <sup>h</sup>	.050	-.109	.002	.042	-.011	.128*	-.030	.052	-.173*	-.165*	.225**	-.123*

**NOTE:**  $N = 310$  after listwise deletion; \*  $p < 0.05$ , \*\*  $p < 0.001$

**NOTE:**  $a =$  Work Status (Full-time vs. Other),  $b =$  Relationship Status (divorced vs. Other),  $c =$  Very Satisfied w/ Custody vs. All Else,  $d =$  Conflict during divorce/separation,  $e =$  Income Adequacy,  $f =$  Positive Parenting,  $g =$  Consistent Discipline,  $h =$  Co-parenting Alliance

Table 4

*Correlations and Descriptive Statistics (including controls) for Sample 2*

Variables	1	2	3	4	5	6	7	8	9	10	11
1. Gender	—										
2. White vs. Others	.444**	—									
3. Black vs. Others	-.509**	-.744**	—								
4. Work Status <sup>a</sup>	-.425**	-.168*	.253*	—							
5 Edu. Level	-.618**	-.492**	.623**	.553**	—						
6. Annual Gross Inco.	-.434**	-.227*	.067	.352**	.475**	—					
7. Rel. Status <sup>b</sup>	.353**	.417**	-.564**	-.152*	-.424**	-.055	—				
8. Custody <sup>c</sup>	-.143	-.407**	.426**	.110	.318**	-.046	-.216*	—			
9. Conflict <sup>d</sup>	-.086	-.191*	.058	.109	.140	.134	.008	.034	—		
10. IA <sup>e</sup>	.380**	.293**	-.222*	-.395**	-.405**	-.321**	.112	-.116	.010	—	
11. GS <sup>f</sup>	.351**	.355**	-.266**	-.258*	-.253*	-.117	.106	-.251*	-.161*	.362**	—
12. CoPA <sup>h</sup>	.071	-.187*	.027	-.011	-.097	-.002	-.014	-.022	-.062	-.078	-.125

**NOTE:**  $N = 172$ ; \*  $p < 0.05$ , \*\*  $p < 0.001$

**NOTE:** *a* = Work Status (Full-time vs. Other), *b* = Relationship Status (divorced vs. Other), *c* = Very Satisfied w/ Custody vs. All Else, *d* = Conflict during divorce/separation, *e* = Income Adequacy, *f* = Good Supervision, *h* = Co-parenting Alliance

Table 5

Results from moderation analyses for all three models

		$\beta$	SE	$t$	$p$
<b>Model 1</b>					
R <sup>2</sup> = 0.261, MSE = 6.632					
Constant ( <i>Positive Parenting</i> )	$i_1$	9.433	0.988	9.549	< 0.001
Financial Stress ( <i>centered</i> )	$\beta_1$	0.365	0.149	2.447	0.015
Co-parenting alliance ( <i>centered</i> )	$\beta_2$	0.960	0.208	4.605	< 0.001
Financial Stress x Co-parenting alliance ( <i>centered</i> )	$\beta_3$	-0.247	0.150	-1.645	0.101
<b>Model 2</b>					
R <sup>2</sup> = 0.119, MSE = 8.473					
Constant ( <i>Consistent Discipline</i> )	$i_1$	10.233	1.072	9.543	< 0.001
Financial Stress ( <i>centered</i> )	$\beta_1$	0.452	0.165	2.742	0.007
Co-parenting alliance ( <i>centered</i> )	$\beta_2$	-0.483	0.246	-1.963	0.051
Financial Stress x Co-parenting alliance ( <i>centered</i> )	$\beta_3$	0.424	0.187	2.263	0.024
<b>Model 3</b>					
R <sup>2</sup> = 0.321, MSE = 9.476					
Constant ( <i>Good Supervision</i> )	$i_1$	9.192	2.533	3.629	< 0.001
Financial Stress ( <i>centered</i> )	$\beta_1$	0.753	0.264	2.854	0.005
Co-parenting alliance ( <i>centered</i> )	$\beta_2$	-0.593	0.373	-1.591	0.114
Financial Stress x Co-parenting alliance ( <i>centered</i> )	$\beta_3$	0.854	0.323	2.644	0.009

NOTE: Model 1 &amp; 2, N = 310 after listwise deletion; Model 3, N = 172

Table 6

*Conditional Effects of Financial Stress on Consistent Discipline at values of Co-parenting alliance*

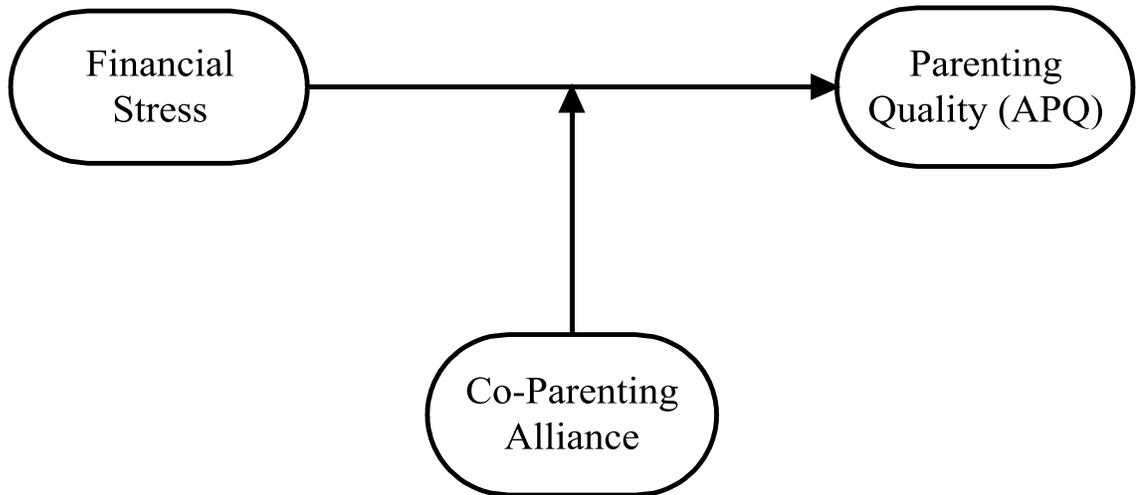
Co-parenting alliance	$\beta$	SE	<i>t</i>	<i>p</i>	95% CI
-0.835 (One <i>SD</i> below mean)	0.098	0.203	0.486	0.628	-0.300, 0.497
0.000 (At the mean)	0.452*	0.165	2.742	0.007	0.128, 0.777
0.835 (One <i>SD</i> above mean)	0.806*	0.250	3.230	0.001	0.315, 1.297

\* $p \leq .05$

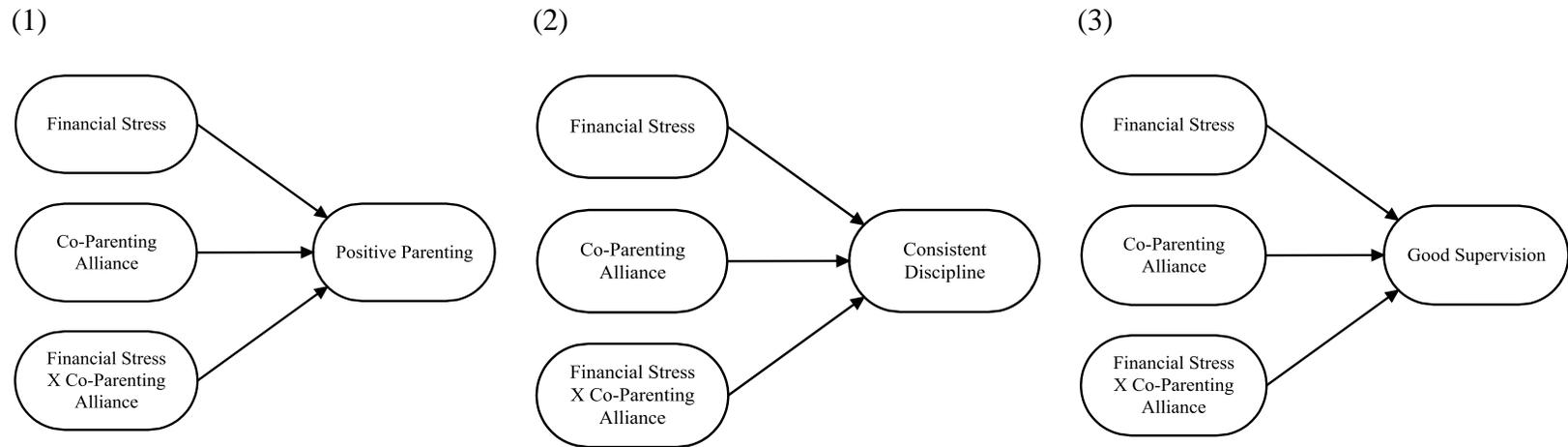
Table 7

*Conditional Effects of Financial Stress on Good Supervision at values of Co-parenting alliance*

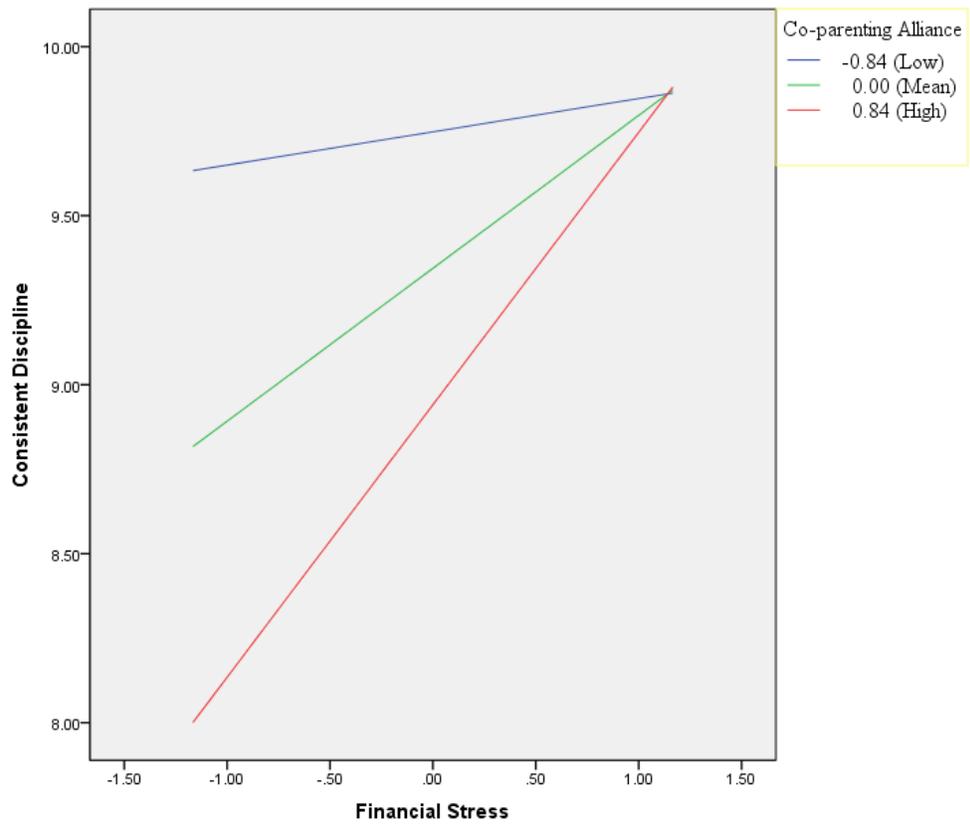
Co-parenting alliance	$\beta$	SE	<i>t</i>	<i>p</i>	95% CI
-0.759 (One <i>SD</i> below mean)	0.106	0.332	0.319	0.751	-0.550, 0.761
0.000 (At the mean)	0.753*	0.264	2.854	0.005	0.232, 1.275
0.759 (One <i>SD</i> above mean)	1.401*	0.386	3.627	0.000	0.638, 2.164



*Figure 1.* Conceptual model of the relationship between financial stress and parenting quality and the moderating effect of co-parenting alliance.



*Figure 2.* Analytical models of (1) the relationship between financial stress and positive parenting and the moderating effect of co-parenting alliance, (2) the relationship between financial stress and consistent discipline and the moderating effect of co-parenting alliance, and (3) the relationship between financial stress and good supervision and the moderating effect of co-parenting alliance.



*Figure 3.* Visual representation of the moderation of the effect of financial stress on consistent discipline by co-parenting alliance.

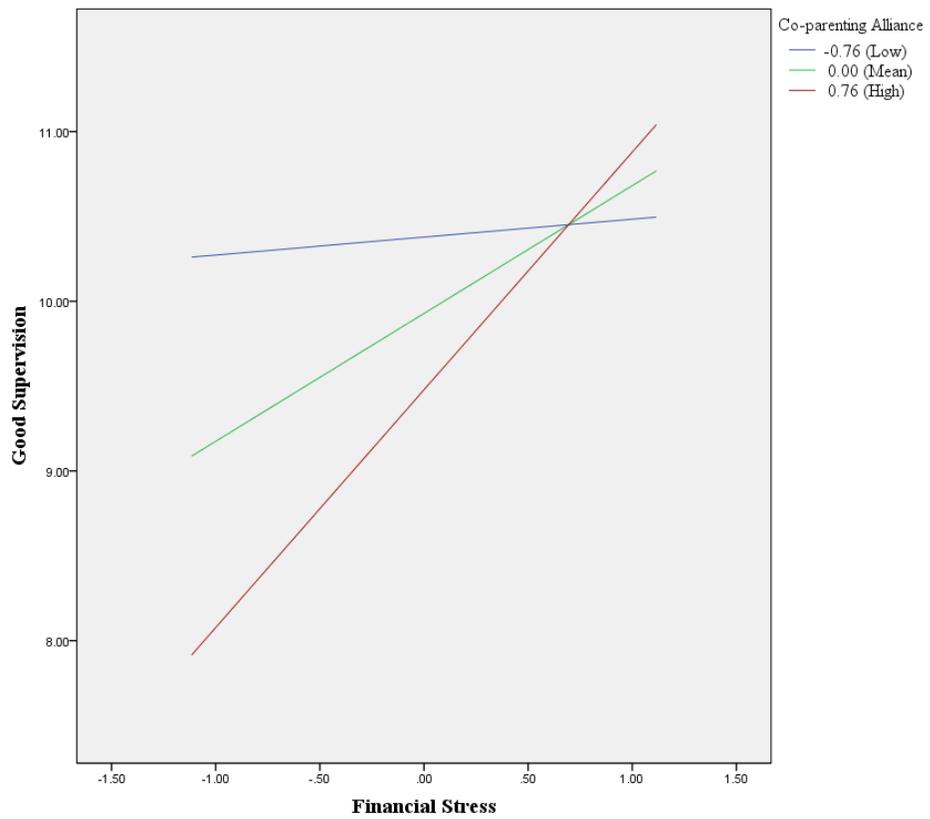


Figure 4. Visual representation of the moderation of the effect of financial stress on good supervision by co-parenting alliance.

## Bibliography

- Abidin, R. R., & Brunner, J. F. (1995). Development of a parenting alliance inventory. *Journal of Clinical Child Psychology, 24*(1), 31-40.  
doi:10.1207/s15374424jccp2401\_4
- Adamsons, K., & Pasley, K. (2006). Coparenting following divorce and relationship dissolution. In M. A. Fine & J. H. Harvey (Eds.), *Handbook of divorce and relationship dissolution* (pp. 241-261). Mahwah, NJ: Lawrence Erlbaum.
- Aiken, L. S., & West, S. G. (1991). *Testing and interpreting interactions in multiple regression*. Newbury Park, CA: Sage Publications.
- Ahrons, C. R., & Wallisch, L. S. (1987). The relationship between former spouses. In D. Perlman & S. Duck (Eds.), *Intimate relationships: Development, dynamics, and deterioration* (pp. 269-296). Newbury Park, CA: Sage.
- Ahrons, C. R. (1994). *The good divorce: Keeping your family together when your marriage comes apart* (1st ed.). New York, NY: HarperCollins.
- Amato, P. R. (2000). The consequences of divorce for adults and children. *Journal of Marriage and Family, 62*(4), 1269-1287.  
doi:10.1111/j.1741-3737.2000.01269.x
- Amato, P. R., & Gilbreth, J. G. (1999). Nonresident fathers and children's well-being: A meta-analysis. *Journal of Marriage and the Family, 61*(3), 557. doi:10.2307/353560

- Amato, P. R., Kane, J. B., & James, S. (2011). Reconsidering the “good divorce”. *Family Relations*, 60(5), 511-524. doi:10.1111/j.1741-3729.2011.00666.x
- Avellar, S., & Smock, P. J. (2005). The economic consequences of the dissolution of cohabiting unions. *Journal of Marriage and Family*, 67(2), 315-327. doi:10.1111/j.0022-2445.2005.00118.x
- Bacon, B. L., & McKenzie, B. (2004). Parent education after separation/divorce: Impact of the level of parental conflict on outcomes. *Family Court Review*, 42(1), 85-98.  
doi:10.1177/1531244504421007
- Bank, L., Forgatch, M. S., Patterson, G. R., & Fetrow, R. A. (1993). Parenting practices of single mothers: Mediators of negative contextual factors. *Journal of Marriage and the Family*, 55(2), 371-384.  
doi:10.2307/352808
- Baum, N., & Shnit, D. (2003). Divorced parents' conflict management styles: Self-differentiation and narcissism. *Journal of Divorce & Remarriage*, 39(3-4), 37-58. doi:10.1300/j087v39n03\_02
- Becher, E. H., Cronin, S., McCann, E., Olson, K. A., Powell, S., & Marczak, M. S. (2015). Parents Forever: Evaluation of an online divorce education program. *Journal of Divorce & Remarriage*, 56(4), 261-276. doi:10.1080/10502556.2015.1025900

- Bergkvist, L., & Rossiter, J. R. (2007). The predictive validity of multiple-item versus single-item measures of the same constructs. *Journal of Marketing Research*, 44(2), 175-184. doi:10.1509/jmkr.44.2.175
- Bianchi, S. M., Subaiya, L., & Kahn, J. R. (1999). The gender gap in the economic well-being of nonresident fathers and custodial mothers. *Demography*, 36(2), 195. doi:10.2307/2648108
- Bonach, K. (2005). Factors contributing to quality coparenting: Implications for family policy. *Journal of Divorce & Remarriage*, 43(3-4), 79-103. doi:10.1300/j087v43n03\_05
- Braver, S. L., Shapiro, J. R., & Goodman, M. R. (2006). Consequences of divorce for parents. In M. A. Fine & J. H. Harvey (Eds.), *Handbook of divorce and relationship dissolution* (pp. 313-337). Mahwah, NJ: Lawrence Erlbaum.
- Burkhauser, R. V., Duncan, G. J., Hauser, R., & Berntsen, R. (1991). Wife or frau, women do worse: A comparison of men and women in the United States and Germany after marital dissolution. *Demography*, 28(3), 353. doi:10.2307/2061461
- Camara, K. A., & Resnick, G. (1989). Styles of conflict resolution and cooperation between divorced parents: Effects on child behavior and adjustment. *American Journal of Orthopsychiatry*, 59(4), 560-575. doi:10.1111/j.1939-0025.1989.tb02747.x

- Center for Disease Control Prevention. (2015, November 23). National marriage and divorce rate trends. Retrieved from [https://www.cdc.gov/nchs/nvss/marriage\\_divorce\\_tables.htm](https://www.cdc.gov/nchs/nvss/marriage_divorce_tables.htm)
- Chase-Lansdale, P. L., and Hetherington, E. M. (1990). The impact of divorce on life-span development: Short and long term effects. In P. B. Baltes, D. L. Featherman, and R. M. Lerner (Eds.), *Life-span development and behavior* (Vol. 10, pp. 105-150). Hillsdale, NJ: Lawrence Erlbaum Associates
- Clifford, S., & Jerit, J. (2014). Is there a cost to convenience? An experimental comparison of data quality in laboratory and online studies. *Journal of Experimental Political Science*, 1(02), 120-131. doi:10.1017/xps.2014.5
- Cohen, O. (1995). Divorced fathers raise their children by themselves. *Journal of Divorce and Remarriage*, 23, 55-73.
- Corcoran, M. (1979). The economic consequences of marital dissolution for women in the middle years. *Sex Roles*, 5(3), 343-353. doi:10.1007/bf00287401
- Dadds, M. R. (1995). *Families, children, and the development of dysfunction*. New York: Sage.
- Danes, S. M., & Rettig, K. D. (1995). Economic adjustment strategies of farm men and women experiencing economic stress. *Financial Counseling*

*and Planning*, 6, 1-18. Retrieved from

<https://afcpe.org/assets/pdf/vol67.pdf>

- Dishion, T. J., Patterson, G. R., Stoolmiller, M., & Skinner, M. L. (1991). Family, school, and behavioral antecedents to early adolescent involvement with antisocial peers. *Developmental Psychology*, 27(1), 172-180. doi:10.1037/0012-1649.27.1.172
- Dixon, C. S., & Rettig, K. D. (1994). An examination of income adequacy for single women two years after divorce. *Journal of Divorce & Remarriage*, 22(1-2), 55-71. doi:10.1300/j087v22n01\_05
- Dumka, L. E., Prost, J., & Barrera, M. (2002). The parental relationship and adolescent conduct problems in Mexican American and European American families. *Journal of Couple & Relationship Therapy*, 1(4), 37-57. doi:10.1300/j398v01n04\_02
- Dworkin, J., Hessel, H., Gliske, K., & Rudi, J. H. (2016). A comparison of three online recruitment strategies for engaging parents. *Family Relations*, 65(4), 550-561. doi:10.1111/fare.12206
- Elgar, F. J., McGrath, P. J., Waschbusch, D. A., Stewart, S. H., & Curtis, L. J. (2004). Mutual influences on maternal depression and child adjustment problems. *Clinical Psychology Review*, 24(4), 441-459. doi:10.1016/j.cpr.2004.02.002
- Elgar, F. J., Waschbusch, D. A., Dadds, M. R., & Sigvaldason, N. (2006). Development and validation of a short form of the Alabama Parenting

- Questionnaire. *Journal of Child and Family Studies*, 16(2), 243-259.  
doi:10.1007/s10826-006-9082-5
- Espenshade, T. J. (1979). The economic consequences of divorce. *Journal of Marriage and Family*, 41(3), 615-625. doi:10.2307/351631
- Essau, C. A., Sasagawa, S., & Frick, P. J. (2006). Psychometric properties of the Alabama Parenting Questionnaire. *Journal of Child and Family Studies*, 15(5), 595-614. doi:10.1007/s10826-006-9036-y
- Fairchild, A. J., & MacKinnon, D. P. (2009). A general model for testing mediation and moderation effects. *Prevention Science*, 10(2), 87-99.  
doi:10.1007/s11121-008-01096
- Field, C. T. (2013). *Discovering statistics using IBM SPSS statistics: And sex and drugs and rock 'n'* (4th ed.). Los Angeles, CA: SAGE.
- Fine, M. A., & Harvey, J. H. (2006). *Handbook of divorce and relationship dissolution*. Mahwah, NJ: Lawrence Erlbaum.
- Forgatch, M. S. , Patterson, G. R., and Ray, J. A. (1996). Divorce and boys' adjustment problems: Two paths with a single model. In E. M. Hetherington and E. Blechman (Eds.), *Stress, coping, and resiliency in children and the family* (pp. 67-105). Mahwah, NJ: Lawrence Erlbaum Associates.
- Frick, P. J. (1991). *Alabama parenting questionnaire*. University of Alabama: Author.

- Frick, P. J., Christian, R. E., & Wootton, J. M. (1999). Age trends in the association between parenting practices and conduct problems. *Behavior Modification, 23*(1), 106-128.  
doi:10.1177/0145445599231005
- Frick, P. J., & Jackson, Y. K. (1993). Family functioning and childhood antisocial behavior: Yet another reinterpretation. *Journal of Clinical Child Psychology, 22*(4), 410-419. doi:10.1207/s15374424jccp2204\_1
- Fulton, J. A. (1979). Parental reports of children's post-divorce adjustment. *Journal of Social Issues, 35*, 126-139. doi: 10.1111/j.1540-4560.1979.tb00817.x
- Furstenberg, F. F. (1990). Divorce and the American family. *Annual Review of Sociology, 16*, 379-403. doi: 10.1146/annurev.so.16.080190.002115
- Furstenberg, F. F., and Cherlin, A. (1991). *Divided.families: What happens to children when parents part*. Cambridge, MA: Harvard University Press.
- Gadalla, T. M. (2008). Impact of marital dissolution on men's and women's incomes: A longitudinal study. *Journal of Divorce & Remarriage, 50*(1), 55-65. doi:10.1080/10502550802365714
- Ganong, L. H., & Coleman, M. (2004). *Stepfamily relationships: Development, dynamics, and interventions*. New York: Kluwer Academic/Plenum Publishers.

- Gardner, D. G., Cummings, L. L., Dunham, R. B., & Pierce, J. L. (1998).  
Single-item versus multiple-item measurement scales: An empirical  
comparison. *Educational and Psychological Measurement*, *58*(6), 898-  
915. doi:10.1177/0013164498058006003
- Gross, T. J., Fleming, C. B., Mason, W. A., & Haggerty, K. P. (2015).  
Alabama parenting questionnaire–9: Longitudinal measurement  
invariance across parents and youth during the transition to high  
school. *Assessment*, *24*(5), 646-659. doi:10.1177/1073191115620839
- Hagan, M. S., Hollier, E. A., O'Connor, T. G., & Eisenberg, M. (1992).  
Parent-child relationships in nondivorced, divorced single-mother, and  
remarried families. *Monographs of the Society for Research in Child  
Development*, *57*(2-3), 94-148. Retrieved from  
<http://www.jstor.org/stable/1166050>
- Hanson, T. L., McLanahan, S. , & Thomson, E. (1998) . Windows on divorce:  
Before and after. *Social Science Research*, *27*, 329-349. doi:  
10.1006/ssre.1998.0625
- Hardesty, J. L., Crossman, K. A., Khaw, L., & Raffaelli, M. (2016). Marital  
violence and coparenting quality after separation. *Journal of Family  
Psychology*, *30*(3), 320-330. doi:10.1037/fam0000132
- Harold, G. T., & Conger, R. D. (1997). Marital conflict and adolescent  
distress: The role of adolescent awareness. *Child Development*, *68*(2),  
333-350. doi:10.1111/j.1467-8624.1997.tb01943.x

- Hayes, A. F. (2016). The PROCESS macro for SPSS and SAS - PROCESS macro for SPSS and SAS. Retrieved from <http://www.processmacro.org/index.html>
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York, NY: Guilford Press.
- Hayes, A. F. (2012). PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling [White paper]. Retrieved from <http://www.afhayes.com/public/process2012.pdf>
- Hetherington, E. M. (1999a). Should we stay together for the sake of the children? In E. M. Hetherington (Ed.), *Coping with divorce, single parenting, and remarriage: A risk and resiliency perspective* (pp. 93-116). Mahwah, NJ: Erlbaum Associates.
- Hetherington, E. M. (1993). An overview of the Virginia Longitudinal Study of Divorce and Remarriage with a focus on early adolescence. *Journal of Family Psychology*, 7(1), 39-56. doi:10.1037//0893-3200.7.1.39
- Hetherington, E. M. (1988). Parents, children, and siblings six years after divorce. In R. Hinde and J. Stevenson-Hinde (Eds.). *Relationships within families* (pp. 311-331). Cambridge, England: Cambridge University Press.

- Hetherington, E. M., Cox, M., and Cox. R. (1982). Effects of divorce on parents and children. In M. E. Lamb (Ed.), *Nontraditional families* (pp. 233-288). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Hetherington, E. M., and Jodi, K. (1994). Stepfamilies as settings for development. In A. Booth and J. Dunn (Eds.), *Stepfamilies* (pp. 55-80). Cambridge, MA: Harvard University Press.
- Hetherington, E. M., & Kelly, J. (2003). *For better or for worse: Divorce reconsidered*. WW Norton & Company.
- Hetherington, E. M., & Stanley-Hagen, M. (2002). Parenting in divorced and remarried families. In M. H. Bornstein (Ed.), *Handbook of parenting. Vol. 3: Being and becoming a parent* (2nd ed., pp. 287- 315). Mahwah, NJ: Lawrence Erlbaum Associates.
- Hoffman, S. (1977). Marital instability and the economic status of women. *Demography*, 14(1), 67. doi:10.2307/2060455
- Hoffman, S. (1977). Marital instability and the economic status of women. *Demography*, 14(1), 67. doi:10.2307/2060455
- Hoffman, S. D., & Duncan, G. J. (1985). A reconsideration of the economic consequences of marital dissolution. *Demography*, 22, 485-497. doi: 10.2307/2061584
- Holman, R., Glas, C. A., Lindeboom, R., Zwinderman, A. H., & Haan, R. J. (2004). Practical methods for dealing with 'not applicable' item

- responses in the AMC Linear Disability Score project. *Health and Quality of Life Outcomes*, 2(29), 1-11. doi:10.1186/1477-7525-2-29
- Katz, L. F., & Gottman, J. M. (1997). Buffering children from marital conflict and dissolution. *Journal of clinical child psychology*, 26(2), 157-171. doi: 10.1207/s15374424jccp2602\_4
- Konold, T. R., & Abidin, R. R. (2001). Parenting alliance: A multifactor perspective. *Assessment*, 8(1), 47-65. doi:10.1177/107319110100800105
- Lamela, D., & Figueiredo, B. (2011). Post-divorce representations of marital negotiation during marriage predict parenting alliance in newly divorced parents. *Sexual and Relationship Therapy*, 26(2), 182-190. doi: 10.1080/14681994.2011.563288
- Lamela, D., Figueiredo, B., Bastos, A., & Feinberg, M. (2016). Typologies of post-divorce coparenting and parental well-being, parenting quality and children's psychological adjustment. *Child Psychiatry & Human Development*, 47(5), 716-728. doi:10.1007/s10578-015-0604-5
- Lund, M. E. (1987). The noncustodial father: Common challenges in parenting after divorce. In C. Lewis & M. O'Brian (Eds.), *Reassessing fatherhood* (pp. 212-224). Beverly Hills: Sage.
- Maccoby, E. E., Buchanan, C. M., Mnookin, R. H., & Dornbusch, S. M. (1993). Postdivorce roles of mothers and fathers in the lives of their

children. *Journal of Family Psychology*, 7(1), 24-38.

doi:10.1037//0893-3200.7.1.24

Maccoby, E. E. , and Mnookin, R.H. (1992). *Dividing the child: Social and legal dilemmas of custody*. Cambridge, MA: Harvard University Press.

Madden-Derdich, D. A., & Leonard, S. A. (2002). Shared experiences, unique realities: Formerly married mothers' and fathers' perceptions of parenting and custody after divorce. *Family Relations*, 51(1), 37–45.

doi: 10.1111/j.1741-3729.2002.00037.x

Markham, M. S., Ganong, L. H., & Coleman, M. (2007). Coparental identity and mothers' cooperation in coparental relationships. *Family*

*Relations*, 56(4), 369-377. doi: 10.1111/j.1741-3729.2007.00466.x

Masheter, C. (1997). Healthy and unhealthy friendship and hostility between ex-spouses. *Journal of Marriage and the Family*, 59, 463-475. doi:

10.2307/353483

McBroom, L. A. (2011). Understanding postdivorce coparenting families:

Integrative literature review. *Journal of the American Academy of*

*Nurse Practitioners*, 23(7), 382-388. doi:10.1111/j.1745-

7599.2011.00622.x

McManus, P. A., & DiPrete, T. A. (2001). Losers and winners: The financial consequences of separation and divorce for men. *American*

*Sociological Review*, 66(2), 246. doi:10.2307/2657417

- Morgan, L. A. (1991). *After marriage ends: Economic consequences for midlife women*. Newbury Park, CA: Sage.
- Mott, F. L., Moore, S. F. 1978. The causes and consequences of marital breakdown. In *Women, Work and Family*. ed. F. Mott, pp. 113-135. Lexington, Mass: Lexington
- Nestel, G. , Mercier, J. , Shaw, L. B. 1983. Economic consequences of midlife change in marital status. In *Unplanned Careers: The Working Lives of Middle-Aged Women*, ed. L. Shaw, pp. 109-125. Lexington, Mass: Lexington
- Peterson, R. R. (1996). A re-evaluation of the economic consequences of divorce. *American Sociological Review*, 61(3), 528.  
doi:10.2307/2096363
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers*, 36(4), 717-731.  
doi:10.3758/bf03206553
- Pruett, M. K., Williams, T. Y., Insabella, G., & Little, T. D. (2003). Family and legal indicators of child adjustment to divorce among families with young children. *Journal of Family Psychology*, 17(2), 169-180.  
doi:10.1037/0893-3200.17.2.169
- Rettig, K. D., Danes, S. M., & Leichtentritt, R. D. (1997). Affective, cognitive, and behavioral responses to economic stress. *Family and*

*Consumer Sciences Research Journal*, 26(1), 3-28.

doi:10.1177/1077727x970261001

Rettig, K. D., Leichtentritt, R. D., & Stanton, L. M. (1999). Understanding noncustodial fathers' family and life satisfaction from resource theory perspective. *Journal of Family Issues*, 20(4), 507-538.

doi:10.1177/019251399020004005

Riggio, H. R. (2004). Parental marital conflict and divorce, parent-child relationships, social support, and relationship anxiety in young adulthood. *Personal Relationships*, 11(1), 99-114. doi:10.1111/j.1475-6811.2004.00073.x

Sabatelli, R. M., & Shehan, C. L. (2004). Exchange and resource theories. In P. G. Boss, W. J. Doherty, R. LaRossa, W. R. Schumm, & S. K. Steinmetz (Eds.), *Sourcebook of family theories and method: A contextual approach* (pp. 385-417). New York City, NY: Springer.

Sayer, L.C. (2006). Economic aspects of divorce and relationship dissolution. In M. A. Fine & J. H. Harvey (Eds.), *Handbook of divorce and relationship dissolution* (pp. 385-406). Mahwah, NJ: Lawrence Erlbaum.

Sbarra, D. A., & Emery, R. E. (2008). Deeper into divorce: Using actor-partner analyses to explore systemic differences in coparenting conflict following custody dispute resolution. *Journal of Family Psychology*, 22(1), 144-152. doi:10.1037/0893-3200.22.1.144

- Seltzer, J. A. (1991). Legal custody arrangements and children's economic welfare. *American Journal of Sociology*, 96(4), 895-929.  
doi:10.1086/229612
- Sharma, A. (2015). Divorce/separation in later-Life: A fixed effects analysis of economic well-being by gender. *Journal of Family and Economic Issues*, 36(2), 299-306. doi:10.1007/s10834-014-9432-1
- Shelton, K. K., Frick, P. J., & Wootton, J. (1996). Assessment of parenting practices in families of elementary school-age children. *Journal of Clinical Child Psychology*, 25(3), 317-329.  
doi:10.1207/s15374424jccp2503\_8
- Simons, R. L. (1996). The effect of divorce on adult and child adjustment. In R. L. Simons (Ed.), *Understanding differences between divorced and intact families: Stress, interaction, and child outcomes* (pp. 3-20). Thousand Oaks, CA: Sage.
- Simons, R. L. and Associates (1996). *Understanding differences between divorced and intact families: Stress, interaction, and child outcome*. Thousand Oaks [etc.], CA: Sage.
- Smock, P. J. (1993). The economic costs of marital disruption for young women over the past two decades. *Demography*, 30(3), 353.  
doi:10.2307/2061645

- Smock, P. J. (1994). Gender and the short-run economic consequences of marital disruption. *Social Forces*, 73(1), 243-262.  
doi:10.1093/sf/73.1.243
- Smock, P. J., Manning, W. D., & Gupta, S. (1999). The effect of marriage and divorce on women's economic well-being. *American Sociological Review*, 64(6), 794. doi:10.2307/2657403
- Stirling, K. J. (1989). Women who remain divorced: The long-term economic consequences. *Social Science Quarterly*, 70(3), 549-561.
- Sturge-Apple, M. L., Gondoli, D. M., Bonds, D. D., & Salem, L. N. (2003). Mothers' responsive parenting practices and psychological experience of parenting as mediators of the relation between marital conflict and mother - preadolescent relational negativity. *Parenting*, 3(4), 327-355.  
doi:10.1207/s15327922par0304\_3
- Wallerstein, J. S., Lewis, J.M., and Blakeslee, S. (2000). *The unexpected legacy of divorce: A 25 year landmark study*. New York: Hyperion
- Wallerstein, J., Lewis, J., & Rosenthal, S. P. (2013). Mothers and their children after divorce: Report from a 25-year longitudinal study. *Psychoanalytic Psychology*, 30(2), 167-187. doi:10.1037/a0032511
- Weiss, R. S. (1984). The impact of marital dissolution on income and consumption in single-parent households. *Journal of Marriage and the Family*, 46(1), 115. doi:10.2307/351870

- Weitzman, L. J. (1985). *The Divorce Revolution: The Unexpected Social and Economic Consequences for Women and Children in America*. New York: Free Press
- Weissman, S., & Cohen, R. S. (1985). The parenting alliance and adolescence. *Adolescent Psychiatry*, 12, 24-45.

## Appendix I

### Measures

#### **Alabama Parenting Questionnaire Short Form (APQ\_Short) (*Dependent Variable*)**

The Alabama Parenting Questionnaire Short Form assess the quality parental practice in three dimensions of parenting: (a) positive parenting, (b) inconsistent discipline and (c) poor supervision. Participants were asked to rate 9-items using a five-point, Likert-type scale – from *never* (1) to *always* (5). Example of items include (1) You let your child know when he/she is doing a good job with something, (2) You threaten to punish your child and then do not actually punish him/her, and (3) Your child is out with friends you don't know (Elgar, Waschbusch, Dadds, & Sigvaldason, 2006). Items pertaining to negative parenting practices were reversed coded so that higher values reflect less negative practices. For instance, the item “you threaten to punish your child and then do not actually punish him/her” was recoded so that 1 corresponds to always and 5 corresponds to never. As the result of the reverse coding of the negative parenting items, the scale reflects the positive aspect of parenting practices. Thus, the original inconsistent discipline scale is now measure consistent discipline parenting practice and the original poor supervision scale is now measuring good supervision practice.

**Positive Parenting.** The positive parenting scale consists of the following items.  
Q34a: You let your child know when he/she is doing a good job with something.  
Q34f: You compliment your child after he/she has done something well.  
Q34g: You praise your child if he/she behaves well.

**Consistent Discipline.** The consistent discipline scale consists of the following items.  
Q34b: You threaten to punish your child and then do not actually punish him/her. (*reverse coded*)  
Q34d: Your child talks you out of being punished after he/she has done something wrong. (*reverse coded*)  
Q34i: You let your child out of punishment early (like lift restrictions earlier than you originally said). (*reverse coded*)

**Good Supervision.** The good supervision scale consists of the following items.  
Q34c: Your child fails to leave a note or let you know where he/she is going. (*reverse*)  
Q34e: Your child stays out in the evening after the time he/she is supposed to be home. (*reverse*)  
Q34h: Your child is out with friends you don't know. (*reverse*)

### **Co-Parenting Alliance (*Moderating Variable*)**

Co-parenting Alliance refer to “the extent to which parents perceive that they and their co-parenting partner are working cooperatively and supportively with each other to fulfill parenting role demands” (Dumka, Prost, & Barrera, 2002, p. 38). Higher scores reflect more coparenting or a stronger coparenting alliance.

Participants were asked to rate 13-items using a five-point, Likert-type scale – from *almost never or never* (1) to *almost always to always* (5). Example of items include (1) When there was a problem with your child, you and your co-parent worked together to find the best way to handle it, (2) Your co-parent stood up for you in front of your child, and (3) You and your co-parent talked about what you should do as parents (Dumka, Prost, & Barrera, 2002)

Q50a: When there was a problem with your child, you and your co-parent worked together to find the best way to handle it.

Q50b: Your co-parent stood up for you in front of your child.

Q50c: You and your co-parent made sure you let each other know what was going on with child.

Q50d: You and your co-parent talked about what you should do as parents.

Q50e: Your co-parent thought you helped enough with your child.

Q50f: Your co-parent thought you were good at raising child.

Q50g: You thought your co-parent was good at raising child.

Q50h: You and your co-parent showed child that you were united and worked as a team.

Q50i: You and your co-parent agreed on how to raise child.

Q50j: When you had a problem with child, you could go to your co-parent and s/he would listen to you and was supportive.

Q50k: Your co-parent had good ideas about how to solve problems with your child.

Q50l: You were satisfied with the amount of time and interest your co-parent gave to your child.

Q50m: Your co-parent was satisfied with the amount of time and interest you gave to your child.