

THE IMPACT OF FATHER INVOLVEMENT ON PARENTING EXPERIENCES
AND CHILD SELF-REGULATION

by

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DISSERTATION ABSTRACT

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Title: The Impact of Father Involvement on Parenting Experiences and Child Self-Regulation

There is limited understanding about the parenting experiences of fathers and how those experiences are associated with child self-regulation. In addition, research on co-parenting within two parent households have found that co-parenting dimensions, particularly supportive and undermining behavior, are affected by parent gender, as well as child age and gender. However, further research is needed to examine the extent to which agreement or disagreement in co-parenting across fathers and mothers impact additional parenting experiences. The present study aimed to examine the impact of father involvement on potential associations between parenting experiences of fathers and child self-regulation in a sample of 31 father-mother-preschooler triads. It was hypothesized that father involvement would moderate the associations and that the quality of father involvement would have a greater impact on the association between parenting experiences and child self-regulation. This study also aimed to conduct exploratory analyses comparing perceptions of parenting experiences across fathers and mothers, as well as examine the extent to which similarities or differences across parents may impact child self-regulation. Results found no associations between father parenting experiences and child self-regulation. Exploratory analyses also found no effect based on

parent agreement. However, significant correlations between various parenting experiences for fathers were found. Additionally, significant correlations between various parenting experiences across fathers and mothers were found. Results suggest that parenting stress, parenting self-efficacy, dyadic adjustment, and co-parenting satisfaction have varying levels of association between fathers and mothers.

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CHAPTER I

INTRODUCTION

In early childhood, measures of self-regulation, the ability to regulate one's own thoughts, behaviors, and emotions, are associated with outcomes including academic performance, executive control, and school readiness (Carlson & Wang, 2007; Ursache, Blair, & Raver, 2012). A large literature has examined the effect of parents on this ability, finding that self-reports of parenting stress, self-efficacy, co-parenting, and marital satisfaction are associated with child self-regulation (e.g., Karreman, van Tuijl, van Aken & Dekovic, 2006). However, all this work has examined female parents – no studies have examined whether these effects exist for fathers. Research has found that fathers have a unique contribution to child development generally (Carlson, 2006), suggesting that they may also have a distinct impact on the self-regulation of their children. Specifically, it remains unknown how fathers' parenting experiences (i.e., self-efficacy, stress, marital satisfaction, and co-parenting) is associated with child self-regulation, particularly inhibitory and attentional control. Understanding more about the impact that fathers' parenting experiences has on child self-regulation is important for future development in supporting fathers in their parenting role.

Defining Father Involvement

The lack of literature on the role of fathers in child development is plagued by inconsistent definitions and continued uncertainty in the literature about what constitutes father involvement. Historically, dichotomous measures of father involvement have been employed, simply noting whether a father was present or absent (Downer, Campos, McWayne, & Gartner, 2008). In more recent years, it has been recognized that father

involvement may be more complex than simply being present or absent, so research has begun to employ more qualitative and quantitative measures of father involvement, recognizing that both quality and quantity are likely important factors. However, there continues to be great variability in the measures used to assess father involvement, including questions about the frequency of engagement in childcare tasks, beliefs and expectation about the fathering role, and time spent with child (Downer et al., 2008; Lopez, McWhirter, Rosencrans, Giuliani, & McIntyre, 2019). This is likely due to the limited understanding about fathering, including fathers' own beliefs about what fathering should be, that continues to exist within the field, as well as efforts to draw on mother-child theory to explain father-child relationships (Downer et al., 2008; Nangle, Kelley, Fals-Stewart, & Levant, 2003; Paquette, 2004).

There have been limited efforts to propose specific father-child relationship theories; however, Paquette (2004) proposed the Father-Child Activation Relationship Theory based on current understanding of attachment and father-child interactions. This theory states that fathers play a uniquely important role in child development, particularly related to a child's socioemotional and self-regulatory development (Paquette, 2004). This seems to be done through more rough-and-tumble play and encouraging children to take risks while also providing a safe and secure environment (Paquette, 2004). Some researchers have utilized identity theory to suggest that the salience and content of a father's identity as a parent will dictate how he approaches childrearing as well as the nature and amount of his involvement (McBride, Shoppe, & Rane, 2002). Research has also found that beliefs fathers have about their role influence father-child interactions, parenting practices, and how fathers carry out parental responsibilities (Nangle et al.,

2003). Despite the limitations and inconsistencies within the field in how to define and measure fathering, father involvement has been found to have a significant impact on fathers' parenting experiences and child outcomes (Downer et al., 2008; Jeynes, 2015; McWayne, Downer, Campos, & Harris, 2013).

Association Between Father Involvement and Father Experiences

Parental self-efficacy is most commonly defined as a set of beliefs that the parent has about their ability to complete childrearing tasks (Kwok, Ling, Leung, & Li, 2013; Salonen et al., 2009). Several studies have found that self-efficacy is positively related to father involvement (Finzi-Dottan, Dayan-Gazith, Borosh, & Golubchik, 2016; Jacobs & Kelley, 2006; Kwok et al., 2013; Trahan, 2018; Tremblay & Pierce, 2011), such that fathers with higher parenting self-efficacy are often more willing to engage in childcare activities, which then leads to higher parenting satisfaction. Indeed, fathers' perceptions of parental self-efficacy are key predictors of father involvement (Kwok et al., 2013).

The most studied predictor of father involvement is marital satisfaction, due to its well-established association with the quality of parent-child interactions (Tremblay & Pierce, 2011). However, there have been mixed findings on the impact of marital satisfaction on father involvement. Some research has found that fathers who report higher levels of marital satisfaction participate more in childrearing activities and report higher quality father-child interactions while other studies have found that higher levels of childcare are associated with lower levels of marital satisfaction (Jacobs & Kelley, 2006; Kwok et al., 2013; Trahan, 2018). These differences are likely related to the different beliefs that fathers have about their role identity as a father (Tremblay & Pierce, 2011). In addition, the attitudes and perceptions of the mother may be a factor.

While much of the research has examined marital satisfaction, co-parenting (the extent to which parents are on the same page with their parenting) has been found to be a greater predictor of father involvement than marital satisfaction (Trahan, 2018).

However, these findings are also mixed with some showing positive associations and others showing no association at all (Jia & Schoppe-Sullivan, 2011; Tremblay & Pierce, 2011). In addition, Jia and Schoppe-Sullivan (2011) found that father involvement was associated with co-parenting, but co-parenting did not impact father involvement. These varying results suggest that there are complexities to father involvement and uncertainty in directionality between self-efficacy, marital satisfaction, and co-parenting with regard to father involvement.

Known Contributions of Fathers on Child Development

In addition to examining the association between father involvement and parenting experiences, father involvement has also been investigated with regard to child development, especially for preschool-aged children. Studying development in preschool-aged children is especially important because the ability to control thought processes and actions develops rapidly during this time period (Carlson & Wang, 2007). Research has found that fathers contribute to many aspects of child development (Carlson, 2006; Flouri & Buchanan, 2003; Roggman, Boyce, Cook, Christiansen, & Jones, 2004). When examining father involvement in terms of quantity and types of activities fathers engaged in with their children, including literacy and language development, research has found that father involvement improves children's academic achievement and language development (Jeynes, 2015; Roggman et al., 2004). A systematic literature review found mixed results on the impact of father involvement within academic development, which

was attributed to the differences in methodological rigor and definition of father involvement (Downer et al., 2008).

More studies have examined the impact of father involvement on socioemotional and self-regulatory skill development than academic outcomes (Downer et al., 2008). Such studies have found that father involvement improves emotional regulation development, lowers child stress levels, increases positive peer interactions, and leads to fewer behavior problems for children (Carlson, 2006; Downer et al., 2008; Flouri & Buchanan, 2003). The results from these various studies likely support Paquette's (2004) Father-Child Activation Relationship Theory, suggesting that fathers' interactions with their children often support social development, including the ability to self-regulate.

Impact of Self-Regulation on Child Outcomes

Self-regulation has been defined in a variety of ways throughout the literature due to the complexity of self-regulation. Overall, self-regulation is considered an aspect of executive functioning in which an individual exerts control over oneself in relation to behavior, attention, and/or emotion within a given context without external forces (Ursache, Blair, & Raver, 2012). Research has found that father involvement can impact a child's self-regulation development, which is critical because the ability to self-regulate is often associated with improved later developmental outcomes (Downer et al., 2008; Flouri & Buchanan, 2003). Research has found that a child's ability to develop self-regulation skills during preschool years is associated with enhanced school readiness (Eisenberg, Valiente, & Eggum, 2010). It has been noted that school readiness includes social skills development, relationships with adults and peers, academic performance, and overall school engagement (Eisenberg et al., 2010). Self-regulation is also associated with

greater academic success and enhanced child well-being (Carlson & Wang, 2007).

However, the impact that father involvement and parenting attitudes may have on self-regulation has yet to be examined and may play a role that is distinct from mother involvement.

Differences in Co-parenting for Fathers and Mothers

Research has established that co-parenting can have a unique influence on a child's socioemotional adjustment. (Belsky, Putnam, & Crnic, 1996; Cook, Schoppe-Sullivan, Buckley, & Davis, 2009; Karreman, van Tuijl, van Aken, Dekovic, 2006). Historically, research on co-parenting has focused on divorced parents or parents of infants; however, in recent years researchers have begun to examine co-parenting within two parent households and parents of preschool-aged children (Kolak & Volling, 2007; Mangelsdorf, Laxman, & Jessee, 2011; Margolin, Gordis, & John, 2001). Co-parenting is most commonly defined as two or more adults working together to raise a child for whom they share responsibility (Mangelsdorf et al., 2011). Research on co-parenting within two parent households has found that co-parenting dimensions, particularly supportive and undermining behavior, are affected by parent gender as well as child age and gender (Cook et al., 2009; Margolin et al., 2001; McBride et al., 2002). Associations between parents' perceptions of child temperament and parenting stress have been found for fathers and mothers; however, differences in the nature of the associations based on varying child characteristics have been found across fathers and mothers (Cook et al., 2009; McBride et al., 2002). Researchers have concluded that preschool children's temperament may be an important correlate of co-parenting behavior (Cook et al., 2009; McBride et al., 2002). Research has also found strong associations between marital

conflict, co-parenting and child affect (Cook et al., 2009; Margolin et al., 2001). More specifically, the interaction between child negative affect and marital adjustment has been found to be a significant predictor of supportive co-parenting (Cook et al., 2009).

Additional research is needed to examine the extent to which agreement or disagreement in co-parenting across fathers and mothers impact additional parenting experiences such as parenting stress and marital satisfaction as well as the development of child self-regulation.

Present Study

As previously noted, the amount of father involvement is significantly associated with father's parenting experiences, as well as the development of his child's self-regulation. However, the association between parenting experiences and child self-regulation has not yet been examined. Given that parenting experiences, including parenting stress, self-efficacy, co-parenting, and relationship satisfaction, can impact overall parenting, it is hypothesized that these parenting experiences for fathers will be associated with the self-regulation of their child, and that this association is likely impacted by father involvement (Chau & Giallo, 2015). In addition, there is limited research on the possible association between various parenting experiences and attitudes fathers may have. The association between constructs such as parenting stress, paternal self-efficacy, and marital satisfaction, including dyadic adjustment and co-parenting, for fathers are unknown. These are important factors to examine, given the documented positive effects of father involvement on child self-regulation. It is anticipated that measuring multiple facets of father involvement will strengthen the results and provide increased clarity on the role of father involvement. In addition, the inclusion of items

targeting father beliefs about their parenting role is expected to increase understanding about how a father's perception of his parenting role impacts his involvement as a parent. Lastly, research demonstrating differences in factors associated with co-parenting satisfaction between fathers and mothers (McBride et al., 2002) suggests that perceptions of co-parenting satisfaction across parents in the same household may be associated with child self-regulation and father involvement. Increasing our understanding in these areas will provide guidance for effective intervention development to support fathers in their parenting role.

The purpose of the present study is to further examine the associations between father parenting experiences and child self-regulation as moderated by father involvement and examining differences between measures of quality and quantity. It is hypothesized that quality of father involvement including warmth and nurturance will have greater impact than quantity or time spent on childcare tasks. It is expected that this study will provide increased clarity to the mixed body of literature regarding the role of father involvement. It is anticipated that the present study will support the growing body of literature that the quality of a father's involvement will have a greater impact on child development than the amount of time fathers spend with their child. Additionally, this study intends to do an exploratory analysis in to the extent to which varying perceptions of co-parenting impact factors associated with child self-regulation across fathers and mothers. Research has not examined how the level of agreement related to co-parenting satisfaction may impact other parenting experiences and child self-regulation. The research questions proposed are as follows:

- 1) What are the associations among fathers' parenting stress, self-efficacy, dyadic adjustment and co-parenting?
- 2) a. What are the associations between fathers' parenting experiences and laboratory measures of child self-regulation within the domains of inhibitory and attentional control?

b. If fathers' parenting experiences are associated with child self-regulation, how does father involvement affect the association and are there differences between measures of quality and quantity?
- 3) Does the level of agreement between parent reports of co-parenting satisfaction impact perceptions of parenting stress and/or marital satisfaction across fathers and mothers?
- 4) Does the level of agreement between parent reports of co-parenting satisfaction across fathers and mothers impact child self-regulation?

CHAPTER II
METHODS

Participants

Participants included 31 predominately Caucasian (85%) families from the Pacific Northwest with a median income of \$70,000. Mean age for fathers, mothers, and children were 37.34 years, 34.04 years, and 4.23 years, respectively. The sample included 45% female children. Additionally, 88% of fathers indicated employment status as working full-time and 97% of fathers were the biological father of the child. Descriptive statistics of demographic characteristics is included below Table 1. Post hoc power analysis will be completed to inform interpretation of results.

Table 1. Descriptive Statistics for Fathers Who Completed the Survey

Demographic	<i>N</i>	<i>M</i>	<i>SD</i>	Max	Min
Father age	31	37.19	4.49	52.00	29.00
Mother age	31	34.32	4.07	43.00	26.00
Child age	31	4.23	0.86	5.72	3.10
Household income	31	84,476.18	55,127.04	215,592.27	28,500.00
Total number of children	31	2.52	1.29	7	1

Protocol

Data collection with mothers and children occurred as part of a larger study involving surveys and observational data on child self-regulation. Recruitment for this study occurred through fliers, social media, and word of mouth. A total of 88 mother-

child dyads completed this initial study. From the initial study, a total of 75 families consented to being contacted about possible future studies. Interested fathers who met inclusionary criteria were sent an online survey through Qualtrics which included informed consent. Inclusionary criteria for fathers included continued residential status with their preschool-aged child and the child's mother. It was not necessary for the father to be identified as the biological father. The survey was sent to 55 fathers and 31 completed surveys were returned.

Formal analyses were run to examine potential differences between fathers who completed the survey and those who did not return the survey. A total of 24 fathers were sent the survey but did not complete it. Children of these fathers had a mean age of 3.87 and 46% were female. These families also had an average of 2.04 total children and a mean income of \$58,283.33. Additionally, 79% of fathers were noted as the biological father of the child. Descriptive statistics are included in Table 2. Data were analyzed with a one-way, between-subjects analysis of variance across the following demographic characteristics: (a) child age, (b) income, and (c) total number of children. Results found that fathers who completed the survey had a significantly higher income ($M = \$84,476.18$, $SD = \$55,127.04$) than fathers who did not complete the survey ($M = \$58,288.33$, $SD = \$30,042.57$), $F(1, 53) = 4.37$, $p = .042$. Table 3 includes results from all between-subjects analysis of variance.

Table 2. Descriptive Statistics for Fathers Who Did Not Complete the Survey

Demographic	<i>N</i>	<i>M</i>	<i>SD</i>	Max	Min
Child age	24	3.87	0.62	5.47	3.08
Household income	24	58,283.33	30,042.57	120,000.00	14,400.000
Total number of children	24	2.04	1.00	5	1

Table 3. One-Way, Between-Subjects, Analysis of Variance Summary Table for Completing the Survey

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>
Child age	1	1.74	1.74	2.97
Error	53	31.05	0.59	
Total	54	32.79		
Household income	1	9,147,539,433	9,147,539,433	4.37*
Error	52	1.089E+11	2,094,029,175	
Total	53	1.180E+11		
Total number of children	1	3.05	3.05	2.22
Error	53	72.70	1.37	
Total	54	75.75		

Note. * $p < .05$.

Measures

Mothers completed a variety of self-report measures during the initial study including surveys related to their parenting stress, parenting self-efficacy, dyadic adjustment, and co-parenting. During the follow-up study with fathers, fathers completed

the same self-report measures in these areas. Fathers also completed measures related to their involvement with their child including measures of quantity and quality, caregiving tasks, and their beliefs about their fathering role. During the initial study, observational data was gathered in a lab setting on various child self-regulation tasks. The following sections describe all measures used in greater detail.

Demographics. Both parents completed separate demographics items assessing their own age, race, ethnicity, and educational level. Mothers were also asked about child age, race, and ethnicity, and household income. Fathers were additionally asked about employment status, whether they are biologically related to the child, and primary care-taking responsibilities.

Parenting Sense of Competency Scale (PSOC). The PSOC is a 19-item scale that measures parental satisfaction and self-efficacy (Johnston, & Mash, 1989). A modified version that adjusted for clarity was used. Nine items assessed parental satisfaction and seven items assessed parental self-efficacy. Each item is rated from 1 (strongly agree) to 6 (strongly disagree). Sample items included, “The problems of taking care of a child are easy to solve,” and “Sometimes I feel like I am not getting anything done.” Lower scores reflected higher parenting satisfaction and better parenting self-efficacy with some items being reversed scored. The sum of all items was calculated to give a total score. Internal consistency (Cronbach’s alpha) for fathers in the current sample was .53 and for mothers it was .79.

Parenting Stress Index-Version 4-Short Form (PSI-4-SF). The PSI is a 40-item scale that measures parental distress, parent-child dysfunctional interaction and difficult child (Abidin, 1983). A total stress index score was given through *T*-scores and

percentile ranks. Each item was rated on a five-point scale from 1 (strongly agree) to 5 (strongly disagree). Sample items included “I feel trapped by my responsibilities as a parent,” and “My child smiles at me much less than expected.” All items were reversed scored so that higher scores indicated more parenting stress. The PSI included several subscales and a total scale, all of which were calculated through sums. The internal consistency for fathers in this sample was .89 and for mothers was .88.

Dyadic Adjustment Scale (DAS). The DAS is a measure of relationship adjustment including dyadic consensus, dyadic satisfaction, affectional expression and dyadic cohesion (Spanier, 1976). The DAS included 40 items that are rated on a six-point scale from always agree to never agree. Sample items included “How often do you or your mate leave the house after a fight?” and “Do you and your partner engage in outside interests together?” Internal consistency for both fathers and mothers in the current sample was .96.

Perceptions of Coparenting Partners Questionnaire (PCPQ). The PCPQ is a 15-item scale that measures perceptions of support from their partner in parenting. Items were rated on a five-point scale from 1 (never) to 5 (always) (Stright & Bales, 2003). Sample items included “My partner backs me up when I discipline the study child,” and “My partner and I use similar parenting techniques.” Lower scores reflected lower feelings of support and cooperative co-parenting with their partner. The average score of all items is calculated to give an overall score. Internal consistency for the fathers in this sample was .76 and for mothers it was .57.

Who Does What? The Who Does What? is a 36-item questionnaire that measures involvement in household, decision-making and childcare roles between partners (Cowan

& Cowan, 1988). Items were rated on a nine-point scale from 1 (she does it all) to 9 (he does it all). For each item, respondents rated how it is now and how they would like it to be. Higher levels of discrepancy between ratings of how it is now compared to how they would like it to be was associated with less satisfaction. In addition, for childcare items, respondents also rated how competent they felt performing each task. Sample items included “Planning and preparing meals,” and “Doing our child’s laundry.” Averages for each domain were calculated. The average absolute difference was then calculated between each “how it is now” and “how I’d like it to be” for each item in the domain. Internal consistency for this sample (fathers only) was .86.

Inventory of Father Involvement-Short Version (IFI-S). The IFI-S is a 26-item measure of father involvement across discipline and teaching responsibility, school encouragement, mother support, providing, time and talking together, praise and affection, developing talents and future concerns, reading and homework support, and attentiveness domains (Hawkins et al., 2002). Each item was rated from 0 (very poor) to 6 (excellent) with an NA response as a possible choice as well. Sample items included “Setting rules and limits for your child’s behavior,” and “Praising your child for something they have done well.” Items were generally scored by calculating the sum of each domain; however, due to missing data, averages were calculated for this study. Internal consistency with this sample (fathers only) was .93. Items from this measure will be used to examine father involvement in terms of quality.

Additional Fathering Items. Fathers also completed items related to how often the father engages in various caregiving tasks including preparing meals, helping the child get dressed and participating in bedtime routine on a weekly basis. Validated

measures related to quantity of father involvement have not yet been developed; however, many studies examining father involvement have included their own items to examine quantity of father involvement. Items for this study came from one such study which used a 6-point scale from 1 (never) to 6 (everyday) to measure amount of time fathers spent in childcare activities (Dyer, McBride, & Jeans, 2009). Sample items included “In a typical week, how often do you help your child to bed.” Fathers also rated how important it is for most fathers to engage in these childcare activities on a scale from 1 (not at all important) to 6 (very important) (Trahan & Cheung, 2016). Sample items included “How important is it for most fathers to help their child to bed?”

Child Go/NoGo. Children completed two separate tasks, a zoo Go/NoGo task on a laptop and a Fish/Shark Go/NoGo task on a tablet. In the zoo Go/NoGo task, children were asked to help return escaped zoo animals. To do so, they pressed the button when they saw an animal (targets, 70%) unless it is the monkey helping them (non-targets; 30%; Grammer, Carrasco, Gehring & Morrison, 2014). During the Fish/Shark Go/NoGo task, children were asked to tap the screen when a fish swam by but not when a shark did (Howard & Okely, 2015). Speed (reaction time) and accuracy (misses, false alarms) were measured for each task. An overall composite was then created to represent inhibitory control.

Child Attention Network Task. Children were presented with a series of horizontal rows of fish on a computer screen. The target was a left or right fish at the center of the screen, flanked by two fish in the same (congruent) or opposite (incongruent) direction, or by lines (neutral). Children were trained to press keys indicating the direction of the center fish. Attentional control was measured by accuracy

(error rate). This task is shorter than a typical adult version, with 20 trials lasting a total of about 3 minutes (Rueda, Posner, & Rothbart, 2004).

CHAPTER III

PLANNED DATA ANALYSES

In this dissertation, I will be exploring the associations between various parenting experiences, including parenting stress, self-efficacy, dyadic adjustment, and co-parenting, for fathers. In addition, I aim to examine the relation between these variables and child self-regulation. I also propose to run an exploratory analysis comparing experiences between fathers and mothers. The use of SPSS and R will be employed to answer the research questions utilizing the following analysis plan:

Research Question 1: What are the associations among fathers' parenting stress, self-efficacy, dyadic adjustment, and co-parenting?

Analysis. This question will be addressed using a correlation analysis to examine the association between the independent variables (IVs), namely parenting stress, parenting self-efficacy, dyadic adjustment, and co-parenting satisfaction. If IVs are correlated at .7 or above, then a composite variable will be created by converting each IV to a Z-score and then averaging to create a composite representing father parenting experiences. If all IVs are not correlated at .7 and above, then the subset of IVs that do correlate above that threshold may be used to create a composite. In that case, the remaining IVs that are correlated below .7 will be analyzed separately in further analyses.

Research Question 2a: What are the associations between fathers' parenting experiences and child self-regulation within the domains of inhibitory and attentional control?

Analysis. Multiple regression analysis will be used to predict child self-regulation, separately for attentional and inhibitory control, from father parenting experiences. It is hypothesized that father parenting experiences will be positively

associated with both types of child self-regulation. Child age and sex will be included as covariates.

Research Question 2b: How does father involvement affect the association between father experiences and child self-regulation, and are there differences between measures of quality and quantity?

Analysis. It is hypothesized that father involvement will impact the association between fathers' parenting experiences and both types of child self-regulation. However, it is unknown whether father involvement will moderate or mediate the association. Quantity of father involvement will be tested as an interaction term in a multiple regression that tests main effects of father parenting experiences on child self-regulation and the interaction of quantity of father involvement on child regulation. This will be done separately for each child SR task. A second set of multiple regression models will be run to test whether the quality of father involvement moderates or mediates the association between father parenting experiences on child self-regulation. This will also be done separately for each child SR task. It is hypothesized that quality of father involvement including warmth and nurturance will have a greater impact than quantity or time spent on childcare tasks. Child age and sex will be included as covariates in all models.

Research Question 3: Does the level of agreement between parent reports of co-parenting satisfaction impact perceptions of parenting stress and/or marital satisfaction across fathers and mothers?

Analysis. This is an exploratory analysis that will be addressed using a correlation analysis to examine the association between the independent variables (IVs) across fathers and mothers.

Research Question 4: Does the level of agreement between parent reports of co-parenting satisfaction across fathers and mothers impact child self-regulation?

Analysis. This is an exploratory analysis that will be addressed by creating an agreement score for each measure including parenting stress, self-efficacy, dyadic adjustment and co-parenting. Prior to analyses, a review of similar work was conducted to examine ways in which prior work has conducted such analyses. No clear indicator was found from the literature when using multiple regression. Therefore, the agreement score will be created by subtracting the Father score from the Mother score such that a positive value is “father higher” and a negative value is “mother higher,” and the closer to zero reflects better agreement. The agreement term will then be used in a multiple regression analysis that tests main effects of parenting experiences on child regulation across parents. Mother and father coparenting scores will also be used as separate and independent predictors, where adjustments will be made with their order in the regression model (mom first, then dad first). Child age and sex will be included as covariates.

CHAPTER IV

RESULTS

Prior to running analyses, histograms were created for each variable in order to examine the distributions for normality and other assumptions of regression. For most variables, this revealed that it was appropriate to use raw scores. However, the PCPQ and DAS were identified to have high positive skew, and were therefore transformed using `transformTukey` (in the `rcompanion` R package). The child attentional control variable was already age-corrected. Lastly, the child inhibitory control variable was created by converting scores on each of the two Go/No-Go tasks to standard scores and then averaging them to create a composite. It is noted that there was some missing data, but not enough to have a significant impact on the normality of the variable. Following the completion of the a priori planned analyses, exploratory analyses were completed with subscales of the PSOC and PSI. Results will be presented within the corresponding research questions. Additionally, it is noted that the Who Does What? scoring provides a variable (Task Sharing) that quantifies who of the parents is the primary caregiver on a continuum from mother to both equally to father (Cowan & Cowan, 1988). This variable was used as a measure of father involvement (quantity) in subsequent analyses.

Research Question 1: What are the associations among fathers' parenting stress, self-efficacy, dyadic adjustment, and co-parenting?

Correlation analyses were conducted to examine associations between the IVs using total scores. Descriptive statistics are reported in Table 4. Correlations are reported in Table 5. Fathers' parenting stress was negatively associated with parenting self-efficacy, $r(29) = -.616, p < .001$, co-parenting satisfaction, $r(29) = -.493, p = .005$, and

dyadic adjustment, $r(29) = -.666, p < .001$. Father co-parenting satisfaction was strongly positively correlated with dyadic adjustment, $r(29) = .758, p < .001$. Given the high association between co-parenting satisfaction and dyadic adjustment, a composite variable was created by converting the two variables to Z-scores and averaging them to create a composite representing father relationship experiences. This composite variable along with parenting stress, and self-efficacy variables were used in answering additional research questions; however the separate variables were still used to examine correlations in answering research question one before utilizing the composite variable in research questions two through four.

Table 4. Descriptive Statistics of Father Parenting Experiences

Variable	<i>N</i>	<i>M</i>	<i>SD</i>
Parenting stress	31	107.45	23.11
Parenting self-efficacy	31	50.61	7.89
Dyadic adjustment	31	130.65	81.71
Co-parenting satisfaction	31	14.90	7.42

Table 5. Pearson Correlations of Father Parenting Experiences

Variable	2	3	4
1. Parenting stress	-.616**	-.666**	-.493*
2. Parenting self-efficacy		.196	.117
3. Dyadic adjustment			.758**
4. Co-parenting satisfaction			

Note. * $p < .05$, ** $p < .001$

Correlations between subscales of the PSOC and PSI was conducted as exploratory analyses. Subscales of the PSOC include efficacy, satisfaction, and interests. The interests subscale had a trend-level association with co-parenting satisfaction, $r(29) = .311, p = .089$. All other PSOC subscales were not significantly associated with any other variables (p -values $> .29$). Subscales of the PSI include parental distress, parent-child dysfunctional interaction, and difficult child. Descriptive statistics are detailed in Table 6 and correlations are reported in Table 7. Dyadic adjustment was negatively associated with all subscales of PSI including parental distress, $r(29) = -.630, p < .001$, parent-child dysfunctional interaction, $r(29) = -.423, p = .018$, and difficult child, $r(29) = -.378, p = .036$. Co-parenting satisfaction was negatively correlated with parental distress, $r(29) = -.487, p = .005$. Parenting self-efficacy was also negatively associated with parent-child dysfunctional interaction, $r(29) = -.595, p < .001$ and parental distress, $r(29) = -.568, p = .001$.

Table 6. Descriptive Statistics of PSOC and PSI Subscales for Fathers

Variable	<i>N</i>	<i>M</i>	<i>SD</i>
PSOC-Efficacy	31	23.36	3.41
PSOC-Satisfaction	31	21.84	3.87
PSOC-Interests	31	6.85	0.87
PSI-Parental distress	31	28.26	8.97
PSI-Parent-child dysfunctional interaction	31	21.13	7.03
PSI-Difficult child	31	28.61	7.00

Table 7. Pearson Correlations of Parenting Stress Subscales with Additional Father Experiences

Variable	Dyadic adjustment (DAS)	Co-parenting satisfaction (PCPQ)	Parenting self-efficacy (PSOC)
PSI-Parental distress	-.630**	-.487*	-.568**
PSI-Parent-child dysfunctional interaction	-.423*	-.243	-.595**
PSI-Difficult child	-.378*	-.266	-.347

Note. * $p < .05$, ** $p < .001$

Research Question 2a: What are the associations between fathers' parenting experiences and child self-regulation with the domains of inhibitory and attentional control?

Multiple regression analysis was used to predict self-regulation, with attentional and inhibitory control being separate models, from parenting experiences. Child sex and age were included in each model as covariates. Analyses did not produce any significant main effects between father parenting experiences and child self-regulation; therefore, the null hypothesis cannot be rejected. All main effects had p values above .05 when controlling for child sex and age. Tables 8 and 9 include full results.

Additional exploratory analyses examining subscales of the PSOC and PSI also yielded null findings with p values above .05 for most subscales. The parent-child dysfunctional interaction parenting stress subscale was significantly associated with child inhibitory control when controlling for child sex and age, $t(26) = -2.381$, $p = .025$. This model accounted for 49% of the total variance, $F = 8.30$, $p < .001$. This was the only subscale that had a significant main effect. Full results for PSOC subscales are included in Tables 10 and 11. Full results for PSI subscales are included in Tables 12 and 13.

Table 8. Regression Results Predicting Child Inhibitory Control

Parameter	Model 1				Model 2				Model 3			
	<i>b</i>	95% CI	<i>SE</i>	<i>t</i>	<i>b</i>	95% CI	<i>SE</i>	<i>t</i>	<i>b</i>	95% CI	<i>SE</i>	<i>t</i>
Intercept	-1.43	-2.93, 0.08	0.73	-1.95	-2.55	-4.22, -0.88	0.81	-3.14*	-1.71	-2.79, -0.64	0.52	-3.29*
Child age	0.47	0.22, 0.73	0.12	3.82*	0.47	0.22, 0.72	0.12	3.90*	0.48	0.22, 0.73	0.12	3.82*
Male child	0.00	-0.46, 0.46	0.22	0.01	0.01	-0.42, 0.45	0.21	0.07	-0.03	-0.47, 0.27	0.21	-0.15
Parenting stress	-0.00	-0.01, 0.01	0.00	-0.60								
Parenting competency					0.02	-0.01, 0.04	0.01	1.28				
Relationship satisfaction									0.04	-0.18, 0.27	0.11	0.39

Note. * $p < .05$

Model 1 $R^2 = .39$, $F = 5.45$, $p < .05$. Model 2 $R^2 = 0.41$, $F = 6.14$, $p < .05$. Model 3 $R^2 = 0.38$, $F = 5.34$, $p < .05$.

Table 9. Regression Results Predicting Child Attentional Control

Parameter	Model 1				Model 2				Model 3			
	<i>b</i>	95% CI	<i>SE</i>	<i>t</i>	<i>b</i>	95% CI	<i>SE</i>	<i>t</i>	<i>b</i>	95% CI	<i>SE</i>	<i>t</i>
Intercept	94.98	45.98, 143.99	23.74	4.00*	89.54	34.23, 144.83	26.79	3.34*	100.80	66.31, 135.29	16.71	6.03*
Child age	-0.91	-8.99, 7.17	3.92	-0.23	-1.20	-9.19, 6.79	3.87	-0.31	-1.05	-9.12, 7.02	3.91	-0.27
Male child	6.54	-8.24, 21.31	7.16	0.91	8.19	-6.01, 22.39	6.88	1.19	7.31	-6.68, 21.31	6.78	1.08
Parenting stress	0.05	-0.25, 0.36	3.92	-0.23								
Parenting competency					0.23	-0.64, 1.09	0.42	0.54				
Relationship satisfaction									-0.44	-7.49, 6.60	3.41	-0.13

Note. * $p < .05$

Model 1 $R^2 = 0.05$, $F = 0.44$, $p = 0.72$. Model 2 $R^2 = 0.06$, $F = 0.50$, $p = 0.68$. Model 3 $R^2 = 0.05$, $F = 0.41$, $p = 0.75$.

Table 10. PSOC Subscale Regression Results Predicting Child Inhibitory Control

Parameter	Model 1				Model 2				Model 3			
	<i>b</i>	95% CI	<i>SE</i>	<i>t</i>	<i>b</i>	95% CI	<i>SE</i>	<i>t</i>	<i>b</i>	95% CI	<i>SE</i>	<i>t</i>
Intercept	-2.50	-4.08, -0.92	0.77	-3.24*	-2.38	-3.91, -0.86	0.74	-3.22*	-2.10	-4.09, -0.11	0.97	-2.17*
Child age	0.46	0.22, 0.71	0.12	3.84*	0.47	0.23, 0.72	0.12	3.92*	0.49	0.23, 0.74	0.12	3.91*
Male child	-0.02	-0.44, 0.41	0.21	-0.09	0.04	-0.41, 0.48	0.22	0.17	-0.03	-0.47, 0.40	0.21	-0.17
Efficacy	0.04	-0.02, 0.09	0.03	1.31								
Satisfaction					0.03	-0.02, 0.08	0.02	1.20				
Interests									-0.44	-7.49, 6.60	3.41	-0.13

Note. * $p < .05$

Model 1 $R^2 = 0.42$, $F = 6.18$, $p < .05$. Model 2 $R^2 = 0.41$, $F = 6.03$, $p < .05$. Model 3 $R^2 = 0.38$, $F = 5.37$, $p < .05$.

Table 11. PSOC Subscale Regression Results Predicting Child Attentional Control

Parameter	Model 1				Model 2				Model 3			
	<i>b</i>	95% CI	<i>SE</i>	<i>t</i>	<i>b</i>	95% CI	<i>SE</i>	<i>t</i>	<i>b</i>	95% CI	<i>SE</i>	<i>t</i>
Intercept	100.6 3	48.15, 153.11	25.43	3.96*	89.27	38.55, 139.98	24.57	3.63*	55.27	-2.68, 113.21	28.08	1.97
Child age	-1.11	-9.18, 6.96	3.91	-0.28	-1.13	-9.09, 6.83	3.86	-0.29	-0.84	-8.30, 6.62	3.62	-0.23
Male child	7.40	-9.18, 6.96	3.91	-0.28	8.80	-5.75, 23.36	7.05	1.25	7.31	-5.24, 20.69	6.28	1.23
Efficacy	0.02	-1.86, 1.89	0.91	0.02								
Satisfaction					0.52	-1.14, 2.18	0.81	0.64				
Interests									6.87	-0.40, 14.14	3.52	1.95

Note. * $p < .05$

Model 1 $R^2 = 0.05$, $F = 0.40$, $p = 0.75$. Model 2 $R^2 = 0.06$, $F = 0.54$, $p = 0.66$. Model 3 $R^2 = 0.18$, $F = 1.73$, $p = 0.19$.

Table 12. PSI Subscale Regression Results Predicting Child Inhibitory Control

Parameter	Model 1				Model 2				Model 3			
	<i>b</i>	95% CI	<i>SE</i>	<i>t</i>	<i>b</i>	95% CI	<i>SE</i>	<i>t</i>	<i>b</i>	95% CI	<i>SE</i>	<i>t</i>
Intercept	-1.80	-3.01, -0.59	0.59	-3.06*	-0.64	-1.20, 0.71	0.66	-0.98	-0.79	-2.81, 1.24	0.99	-0.80
Child age	0.48	0.22, 0.74	0.12	3.86*	0.43	0.19, 0.67	0.11	3.75*	0.41	0.13, 0.69	0.14	2.96*
Male child	-0.06	0.22, 0.74	0.22	-0.26	0.10	-0.31, 0.51	0.20	0.49	-0.02	-0.45, 0.41	0.21	-0.09
Parental distress	0.00	-0.02, 0.03	0.01	0.25								
Dysfunctional interaction					-0.04	-0.07, -0.00	0.02	-2.38*				
Difficult child									-0.02	-0.07, 0.02	0.02	-1.12

Note. * $p < .05$

Model 1 $R^2 = 0.38$, $F = 5.29$, $p < .05$. Model 2 $R^2 = 0.49$, $F = 8.30$, $p < .05$. Model 3 $R^2 = 0.41$, $F = 5.93$, $p < .05$.

Table 13. PSI Subscale Regression Results Predicting Child Attentional Control

Parameter	Model 1				Model 2				Model 3			
	<i>b</i>	95% CI	<i>SE</i>	<i>t</i>	<i>b</i>	95% CI	<i>SE</i>	<i>t</i>	<i>b</i>	95% CI	<i>SE</i>	<i>t</i>
Intercept	93.55	55.16, 131.95	18.60	5.03*	102.03	55.13, 148.93	22.72	4.49*	135.59	67.83, 203.34	32.83	4.13*
Child age	-1.31	-9.24, 6.61	3.84	-.034	-1.14	-9.28, 6.99	3.94	-0.29	-4.17	-13.56, 5.22	4.55	-0.92
Male child	5.43	-9.11, 19.98	7.05	0.77	7.51	-6.91, 21.92	6.98	1.08	8.56	-5.13, 22.25	6.63	1.29
Parental distress	0.33	-0.47, 1.13	0.39	0.85								
Dysfunctional interaction					-0.04	-1.23, 1.16	0.58	-0.07				
Difficult child									-0.80	-2.16, 0.56	0.66	-1.21

Note. * $p < .05$

Model 1 $R^2 = 0.08$, $F = 0.65$, $p = 0.59$. Model 2 $R^2 = 0.05$, $F = 0.40$, $p = 0.75$. Model 3 $R^2 = 0.10$, $F = 0.91$, $p = 0.45$.

Research Question 2b: If fathers' parenting experiences are associated with child self-regulation, how does father involvement affect the association. If so, are there differences between measures of quality and quantity?

Interaction effects of father involvement were analyzed using multiple regression. Despite null findings with regard to the main effects, interaction terms were analyzed to examine if father involvement had an additional effect on the association between father parenting experiences and child self-regulation. Separate models were run to examine quantity and quality measures of father involvement on each IV (parenting stress, parenting self-efficacy, and relationship satisfaction). All results yielded p values above .05 (p values $> .13$); therefore, the null hypothesis cannot be rejected.

Research Question 3: Does the level of agreement between parent reports of co-parenting satisfaction impact perceptions of parenting stress and/or marital satisfaction across fathers and mothers?

Association between the IVs across fathers and mothers was examined through correlation analyses using total scores. Descriptive statistics for mother parenting experiences are in Table 14 and descriptive statistics for father parenting experiences are in Table 4. Correlations across fathers and mothers are reported in Table 15. Fathers' dyadic adjustment was positively correlated with mothers' dyadic adjustment, $r(29) = .611, p < .001$, mothers' co-parenting satisfaction, $r(29) = .468, p = .008$, and mothers' self-efficacy $r(29) = .468, p = .008$. Father and mother reports of co-parenting satisfaction were also positively correlated, $r(29) = .458, p = .01$. Additionally, fathers' co-parenting satisfaction was positively associated with mothers' dyadic adjustment, $r(29) = .432, p = .017$, and mothers' self-efficacy, $r(29) = .365, p = .043$. Father and mother self-efficacy

were not significantly correlated ($p = .116$). Fathers' self-efficacy was also moderately correlated with mothers' dyadic adjustment, $r(29) = .396, p = .03$. Father and mother reports of parenting stress were also positively associated, $r(29) = .476, p = .007$. Fathers' overall parenting stress was negatively correlated with mothers' dyadic adjustment, $r(29) = -.660, p < .001$, mothers' co-parenting satisfaction, $r(29) = -.450, p = .011$, and mother's self-efficacy, $r(29) = -.368, p = .042$.

Table 14. Descriptive Statistics of Mother Parenting Experiences

Variable	<i>N</i>	<i>M</i>	<i>SD</i>
Parenting stress	31	72.23	19.00
Parenting self-efficacy	31	53.48	6.06
Dyadic adjustment	31	116.80	17.67
Co-parenting satisfaction	31	4.32	0.54

Table 15. Pearson Correlations of Parenting Experiences Across Mothers and Fathers

Variable	Mother parenting stress	Mother self-efficacy	Mother dyadic adjustment	Mother co-parenting
Father parenting stress	.476*	-.368*	-.660**	-.450*
Father self-efficacy	-.282	.116	.396*	.283
Father dyadic adjustment	-.310	.468*	.611**	.468*
Father co-parenting	-.175	.365*	.432*	.458*

Note. * $p < .05$, ** $p < .001$

Further exploratory analyses of correlations involving subscales of the PSOC and PSI were examined across parents. Descriptive statistics for mothers are reported in Table 16 and for fathers in Table 6. Significant correlations are reported in Table 17. Mothers'

self-efficacy satisfaction was positively associated with fathers' parent-child dysfunctional interaction parenting stress, $r(29) = .411, p = .021$. Self-efficacy interests for mothers was negatively correlated with fathers' self-efficacy interests, $r(29) = -.313, p = .014$, fathers' dyadic adjustment, $r(29) = -.412, p = .021$, and father's co-parenting satisfaction, $r(29) = -.394, p = .028$. Fathers' overall self-efficacy was negatively correlated with mother's parental distress, $r(29) = -.547, p = .001$. Mothers' dyadic adjustment was also negatively correlated with all subscales of the PSI for fathers including, parental distress, $r(29) = -.616, p < .001$, parent-child dysfunctional interaction, $r(29) = -.508, p = .004$, and difficult child, $r(29) = -.417, p = .022$. Mothers parental distress was negatively associated with fathers' dyadic adjustment, $r(29) = -.395, p = .028$. Difficult child parenting stress was positively correlated between fathers and mothers, $r(29) = .591, p < .001$. Additionally, fathers' parental distress was negatively associated with mothers' overall self-efficacy, $r(29) = -.363, p = .045$, and co-parenting satisfaction, $r(29) = -.406, p = .023$. Parental distress was also positively associated between mothers and fathers $r(29) = .560, p = .001$.

Table 16. Descriptive Statistics of PSOC and PSI Subscales for Mothers

Variable	<i>N</i>	<i>M</i>	<i>SD</i>
PSOC-Efficacy	31	22.87	3.78
PSOC-Satisfaction	31	21.84	3.87
PSOC-Interests	31	6.87	0.87
PSI-Parental distress	31	25.81	7.86
PSI-Parent child dysfunctional interaction	31	19.74	5.97
PSI-Difficult child	31	26.68	8.12

Table 17. Pearson Correlations of PSOC and PSI Subscales with Additional Parenting Experiences

Variable	Father interest	Father parental distress	Father parent child dysfunctional interaction	Father difficult child	Father dyadic	Father coparenting	Father self-efficacy
Mother satisfaction			.411*				
Mother interests	-.313*				-.412*	-.394*	
Mother parental distress		.560**			-.395*		-.547**
Mother difficult child				.591**			
Mother dyadic		-.616**	-.508*	-.417*			
Mother co-parenting		-.406*					
Mother overall self-efficacy		-.363*					

Note. * $p < .05$, ** $p < .001$

Research Question 4: Does the level of agreement between parent reports of co-parenting satisfaction across fathers and mothers impact child self-regulation?

Given that prior literature did not have a clear indicator for examining levels of agreement between parents, agreement scores for each IV were created by subtracting the Father score from the Mother score such that a positive value indicates “father higher” and a negative value indicates “mother higher,” and the closer to zero reflects better

agreement. These agreement terms were used in a multiple regression analysis to tests main effects of parenting experiences on child self-regulation across parents when controlling for child sex and age. All results yielded p values above .05 (p values > .10); therefore, the null hypotheses cannot be rejected. Additionally, mother and father co-parenting scores were used as separate and independent predictors, where adjustments were made with their order in the regression model (mom first, then dad first). Child age and sex were included as covariates and the models were not significant predictors of child self-regulation (p values > .46).

CHAPTER V

DISCUSSION

Results demonstrated that father parenting experiences was not associated with child self-regulation and father involvement did not have an interaction effect. These null findings may be due to the small sample size; however, it is also likely that father parenting experiences are truly not associated with child self-regulation. Prior research has not examined these associations in fathers; therefore, the association may not exist in the same way that it does for mothers. More research with larger samples is needed to further investigate the potential association between parenting experiences for fathers and child self-regulation.

This study did find that father parenting stress was significantly correlated with other parenting experiences for fathers including parenting self-efficacy, dyadic adjustment, and co-parenting satisfaction. This suggests that parenting stress is significantly associated with other parenting and relationship experiences for fathers. This is consistent with previous research examining the impact of parenting stress on fathers (Fagan & Lee, 2014). Developing support for fathers in managing levels of parenting stress will likely improve their parenting self-efficacy as well as relationship satisfaction with their partner including co-parenting satisfaction. Specific father-based interventions including behavioral parent training may be beneficial in reducing the parenting stress fathers experience.

Results also found a significant positive correlation between dyadic adjustment and co-parenting satisfaction for fathers. This finding suggests that the level of support fathers feel from their partner in parenting decisions is meaningfully associated with the

level of satisfaction they experience in their relationship. The strong correlation between these two variables was an expected outcome given the known association between these two variables. Prior research has found that marital satisfaction and co-parenting satisfaction are strong predictors of each other (Morrill, Hines, Mahmood, & Cordova, 2010).

Examination of correlations of parenting experiences across mothers and fathers also found several significant associations. Fathers' parenting stress was significantly correlated with all mother parenting experiences including parenting stress, parenting self-efficacy, dyadic adjustment, and co-parenting. It is evident that the parenting stress fathers experience is strongly associated with other parenting experiences fathers and mothers within the same household have. The present data suggest that fathers experience increased parenting stress when their spouses experience increased parenting stress, decreased parenting confidence, and decreased satisfaction.

Mothers' parenting stress was only found to be associated with fathers' parenting stress. No other father variables were associated with mothers' parenting stress. It appears that the variables associated with parenting stress may be different for fathers and mothers within the same household. Fathers' parenting stress seems to have stronger associations with mothers' parenting experiences than vice versa.

Additionally, mothers' dyadic adjustment was significantly correlated with all father parenting experiences suggesting that the level of marital satisfaction mothers experience is associated with the parenting and relationship experiences that fathers have. The quality of the marital relationship and support mothers experience within their relationship is significantly associated with the stress and confidence fathers' experience

as a parent. Perhaps fathers feel increased stress, decreased parenting confidence, and decreased satisfaction when their spouse experiences decreased marital satisfaction.

Fathers' dyadic adjustment was significantly correlated with mothers' dyadic adjustment, self-efficacy, and co-parenting. This suggests that the marital satisfaction fathers experience is associated with mothers' marital satisfaction, co-parenting satisfaction, and parenting confidence. It is noted that fathers' dyadic adjustment was not associated with the parenting stress mothers experience; however, mothers' dyadic adjustment was significantly associated with the parenting stress fathers experience. It appears that the stress mothers experience in their parenting is not associated with the level of marital satisfaction fathers experience. Whereas, the stress fathers experience in their parenting is associated with the level of marital satisfaction mothers experience. Parenting stress that fathers experience may be more strongly linked to mothers' marital satisfaction than for mothers.

Mothers' parenting self-efficacy was significantly associated with all father parenting experiences except self-efficacy. This suggests that the parenting confidence mothers experience is not correlated with the parenting confidence fathers experience. However, mothers' parenting self-efficacy is associated with father's parenting stress, dyadic adjustment, and co-parenting satisfaction. It appears that the parenting confidence mothers experience is correlated with the level of parenting stress, marital satisfaction, and co-parenting satisfaction their spouse experiences. The same cannot be said for fathers. Mothers' dyadic adjustment was the only significant association with fathers' parenting self-efficacy. Therefore, it seems that mothers' parenting self-efficacy is more strongly linked to fathers' parenting experiences than for fathers.

It is apparent that the stress and self-efficacy parents experience is associated with the marital and co-parenting satisfaction they experience. However, the directionality or causality is unknown based on this research. This study does indicate that the parenting experiences of fathers is associated with the parenting experiences of mothers suggesting that they are linked. These findings are also supported by the literature indicating high levels of correlations between parenting experiences and relationship quality across parents (Kolak & Volling, 2007; Margolin et al., 2001). It is important to support parents in their marital relationship as well as in parenting, as the bidirectional relationship between parenting and marital satisfaction indicates that improvement in each will likely help bolster the other. It appears that these associations are somewhat different for fathers and mothers, suggesting that there are different variables that impact parenting for fathers compared to mothers within the same household. It appears that fathers' parenting stress is more strongly linked to mother parenting experiences, whereas mothers' parenting self-efficacy is more strongly linked to father parenting experiences. Further examination into other factors may impact these associations, and what might contribute to the differences between fathers and mothers would be beneficial in improving our understanding of the experiences fathers have in their parenting role. By increasing such understanding, we can be better equipped to support fathers.

Limitations

There are several limitations associated with this study that must be considered when interpreting the results. First, this study had a relatively small sample size ($N = 31$) that was largely homogenous across race and ethnicity. This limits the generalizability of the results. Post hoc sensitivity analysis indicated that we were appropriately powered to

detect correlations above 0.47. Several significant correlations above 0.47 were found in this study indicating that the results are meaningful for this sample. However, it is noted that the sample was largely homogenous, and had a higher income than fathers who did not complete the survey. Therefore, caution must be taken in interpreting results beyond populations reflective of the sample. Additionally, post hoc power analysis indicated that the regression analyses were slightly under powered (0.75) indicating the sample size may have been too small to find meaningful associations within the regression analyses. Second, the study was cross-sectional, so directionality of associations is unclear. This study found interesting correlations; however, causality cannot be determined from this study. Third, parent experiences were gathered through self-report measures only. Child data was gathered through laboratory assessments; however, parent data all came from surveys. The use of self-report measures when examining constructs such as parenting experiences is common yet can limit interpretation because it is reliant on participants being truthful and accurate.

Future Directions

Future research would benefit from studies involving larger samples of fathers from more diverse backgrounds to help create better power and generalizability of results. Future research would also benefit from longitudinal designs that can examine causality and impact of father experiences across time on child development. Examining directionality amongst the significant correlations found in this study between parenting and relationship satisfaction for fathers as well as mothers would also be beneficial. Determining directionality and causality will help improve direct targets of intervention. Without determining causality, we only know that these variables are connected so our

interventions, while still likely beneficial, are not as effective as they could be. Another area of future research would be to examine the directionality of the associations between parenting experiences and child behaviors. There has been some research to support that the parenting stress, parenting self-efficacy, coparenting satisfaction, and dyadic adjustment parents experience is a result of child behavior (Cook et al., 2009). Therefore, examining the impact of child temperament and self-regulation on these parenting experiences for fathers and mothers would be beneficial.

This study examined father involvement as a moderator between parenting experiences and child self-regulation and found no effect. However, prior research has noted the significant role that father involvement plays on child development as well as parenting experiences for fathers (Downer et al., 2008; Jeynes, 2015; Jia & Schoppe-Sullivan, 2011; Kwok et al., 2013; Trahan, 2018). Therefore, future research may benefit from the examination of the impact that father involvement has on child self-regulation as well as additional parenting experiences. It is possible that father involvement may have a more direct effect rather than functioning as a moderator.

Future research may also benefit from further analysis of the impact of parenting stress on additional parenting experiences for fathers. Given the results of this study, it would be beneficial to further examine the role of parenting stress in how involved fathers are and in the relationship they have with their partner, including the impact fathers parenting stress may have on mothers parenting experience. Parenting stress may likely serve as a moderator for the association between child self-regulation and parenting experiences. This may be evident for both mothers and fathers. Prior research has found that when parents perceived their child as having a more difficult temperament, they

experienced lower levels of marital and co-parenting satisfaction (Cook et al., 2009; McBride et al., 2002). Examining the moderating effects of parenting stress on these associations may provide greater insight into specific variables to target through intervention. Providing interventions that can help decrease the stress fathers and mothers experience in their parenting role may likely have a greater impact on child development and parental relationship quality with their partner than other variables. Future research is needed to examine these associations.

Conclusion

There are many areas for additional research based on the results of this study. However, this study has found that the experiences fathers and mothers have in their parenting roles are strongly correlated with each other. Additionally, fathers parenting stress is associated with all other parenting experiences fathers have including self-efficacy, marital satisfaction, and co-parenting satisfaction. This suggests that the stress fathers experience in their parenting role likely contributes to the quality of their relationship with their partner and confidence as a parent. It is also possible that the parenting stress fathers experience may be associated with the level and type of involvement they have with their child. The development and utilization of interventions targeted for fathers that are focused on strategies for decreasing parenting stress would likely be beneficial for improving father experiences with their child and in their relationship with their partner.

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