

The Role of Parental Responsibility in Relation to the Familial Link of Anxiety

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Abstract

Anxiety has a strong familial link in which parent anxiety increases the risk for child anxiety. Behavioral inhibition (BI) is also a risk factor for the development of anxiety, and parent factors (i.e., overprotection, overcontrol) exacerbate this risk. Studies examining the link between parent and child anxiety have mainly focused on genetics and childrearing styles. Few studies have explored the role of coparenting, and none have specifically studied parental responsibility, which refers to parents' degree of involvement in caregiving activities. Limited studies have also incorporated both parents' anxiety and child anxiety within the same model to capture a comprehensive family approach. This study utilized hierarchical regression to investigate the association between parent and child anxiety severity and how parental responsibility may play a role in the association. Post-hoc analyses were also conducted to further explore the relationships discovered between main variables (parent anxiety severity, child anxiety severity, parental responsibility).

This cross-sectional secondary data analysis utilized baseline data from a randomized controlled trial comparing two treatments for young children high in BI, the Turtle Program and Cool Little Kids. The full sample consisted of 151 children and their primary parents and coparents. The final study sample consisted of 81 families with data on parental responsibility.

Coparent anxiety was directly linked with child anxiety, whereas primary parent anxiety was not, suggesting the importance of considering both parents' anxiety when examining the association between parent and child anxiety. Greater involvement in caregiving activities by both parents was also associated with lower child anxiety severity, suggesting that having more balance between parents in the amount of time they spend in caregiving activities may be an important factor for child anxiety severity.

Based on the study, the role of coparent anxiety and balance in parental responsibility may be important to consider when assessing and treating families with children elevated in BI. Future studies should consider incorporating additional family, coparenting, and parenting factors to gain a more comprehensive understanding of how balance in parental responsibility may play a role in the link between parent and child anxiety.

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The Role of Parental Responsibility in Relation to Familial Anxiety

Background

Importance of Anxiety Disorders

Anxiety is one of the most common childhood disorders. Anxiety disorders have been found to emerge earlier than many other disorders (Kessler et al., 2005), with half of its cases emerging before the age of 6 (Merikangas et al., 2010). Anxiety has comparable levels of impairment to other psychiatric childhood disorders (Costello et al., 2003; Ezpeleta et al., 2001), and children can be placed at risk of being diagnosed with other anxiety disorders and developing comorbidities such as depression (Kashani & Orvaschel, 1990) and substance use disorder over time (Hussong et al., 2011).

Familial Link of Anxiety

Anxiety has been found to have a strong familial link, in which parent anxiety increases the risk for child anxiety. This link has been supported by factors such as genetics and parents' childrearing styles and practices. Children with at least one parent with an anxiety diagnosis are almost five times more likely to be diagnosed with an anxiety disorder (Beidel & Turner, 1997). According to twin studies, anxiety heritability has also been discovered to be at least around 30 to 40%, highlighting the role of genetics in the familial aggregation of anxiety (Hettema et al., 2001). Childrearing styles such as parental overprotection and overcontrol have also often been tied to anxiety symptoms in children and are therefore included in models of anxiety development (Chorpita & Barlow, 1998; Borelli et al., 2015; McLeod et al., 2007).

Behavioral Inhibition (BI)

BI is a temperament trait, identifiable as early as four months of age, that can be characterized as early emerging expressions of fear and reservation when faced with new and

unfamiliar situations (Kagan et al., 1988). BI has been proposed to be an antecedent of social withdrawal in later childhood (Rubin et al., 2009). Children who are high in BI are also placed at four times the risk of being diagnosed with social anxiety during their adolescent years, especially when BI is stable in toddlerhood and early childhood. However, around half of the children with stable BI may not go on to develop an anxiety disorder (Chronis-Tuscano et al., 2009). It has also been suggested that BI is genetically inherited (Robinson et al., 1992) and related to parental overprotection and overcontrol (Hudson & Rapee, 2004; Rubin et al., 2009). However, as demonstrated through Rubin et al.'s (2009) transactional model, children high in BI and their parents exert reciprocal influences on one another and inhibited children may “pull for” parenting behaviors (e.g., overprotection, overcontrol) when faced with unfamiliar situations, which in turn exacerbates the child's inhibition, anxiety, and avoidance (Chronis-Tuscano et al., 2018). Therefore, it is important to study malleable family factors in samples of young children high in BI to better understand how they may relate to the familial link in anxiety.

Coparenting

The relationship between two parents in their roles as caregivers is often referred to as “coparenting.” Coparenting does not include any aspects of the relationship that fall outside of childrearing (e.g., romantic, financial, legal) but instead focuses on how parents coordinate in raising children (Feinberg, 2003). The construct has been consistently linked to family outcomes such as positive child adjustment, both cross-sectionally and longitudinally (Feinberg, 2003; Margolin et al., 2001). Feinberg's (2003) Coparenting Model consists of four main components of coparenting: childrearing agreement, joint family management, support/undermining, and division of labor. Most studies on coparenting in relation to anxiety have focused on the supportive versus undermining component (Majdandžić et al., 2012), which has also been

associated with child and adolescent behavior problems (Floyd & Zmich, 1991). However, few studies have focused on the fourth component, division of labor, which refers to how parents split daily caregiving and household responsibilities (Feinberg, 2003); this component is similar to parental responsibility, which measures parents' degree of involvement in daily caretaking activities (McBride & Mills, 1993). Within the coparenting component of joint family management, there is also the concept of "balance," which refers to the relative amount of time each parent interacts with their child when both parents (and the child) are present (Feinberg, 2003).

According to the theoretical model by Majdandžić et al. (2012), it has been proposed that in parental dyads where one parent is anxious and the other is not, the anxious parent may undermine their coparent's parenting if they feel their coparent is not doing enough; or, on the other hand, the anxious parent may withdraw from parenting interactions to avoid their feelings of anxiety. In addition, non-anxious parents with anxious partners have been hypothesized to influence the coparenting relationship in both positive and negative ways. For example, coparents may be supportive towards their anxious partner and help reduce their anxiety by dividing caregiving tasks based on individual strengths; alternatively, they may undermine their partner's parenting by dismissing their anxiety. Based on this model, parents who are anxious could potentially want to be more involved than their coparent in caregiving activities (hold greater parental responsibility) or want to rely more on their coparent in caregiving activities (hold less parental responsibility). However, this theory by Majdandžić et al. (2012), has not yet been empirically tested. Studies have instead been focused on how parent anxiety is related to marital functioning and parenting behavior. Only a few empirical studies have been conducted on coparental support (support between parents in caring for their children), finding that paternal

anxiety is associated with less support from their coparents (Johnson et al., 2004; Isacco et al., 2010; Majdandžić et al., 2012).

Gaps in the Literature

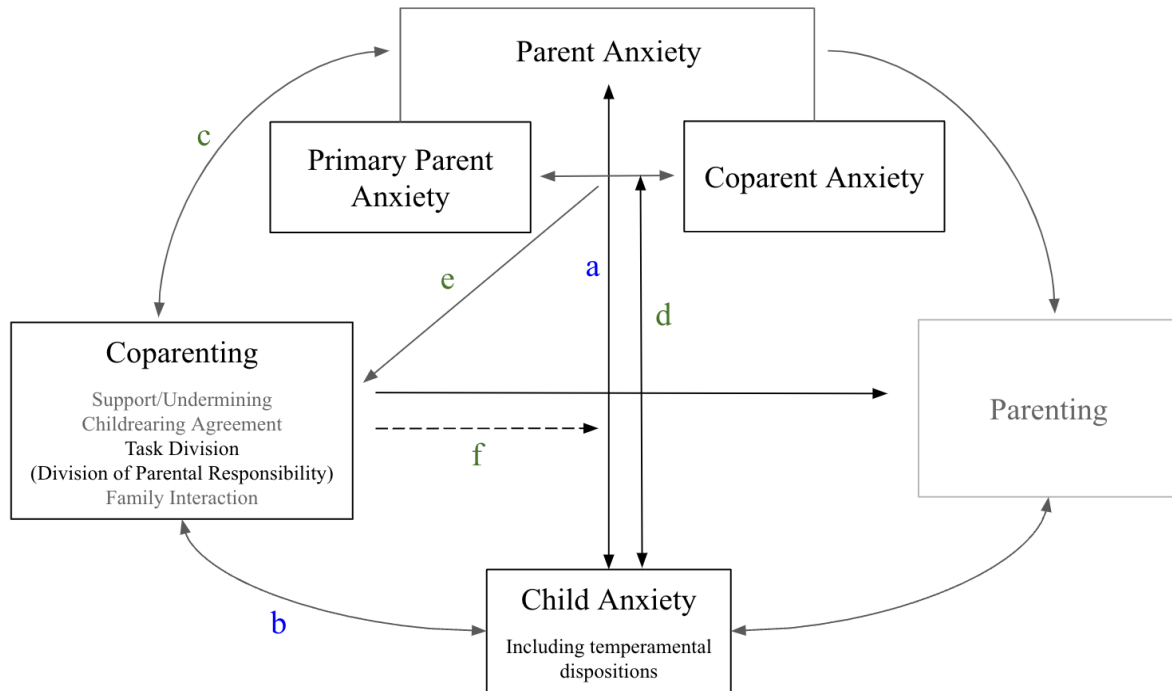
Despite the suggested importance of coparenting, there have only been a few studies that have focused on it when examining the familial link of anxiety (Majdandžić et al., 2012). Most studies on coparenting in families with anxiety have concentrated on the component of supportive/undermining parenting. However, none of the studies on families with anxiety have investigated the component of parental responsibility, which can provide valuable information on how involved a parent is in their child's caregiving activities and how the parent's or child's anxiety may play a role in this involvement. In addition, few studies in the child anxiety literature have included *both* primary parents' and coparents' anxiety *and* child anxiety in the same model.

The Current Study

This study investigated how the division of parental responsibility is related to the association between parent and child anxiety between young children high in BI and their parents. We created an adaptation of the theoretical model by Majdandžić et al. (2012) to investigate the various relationships between coparenting, parent anxiety (for primary parents *and* coparents), and child anxiety (see Figure 1). Specifically, the study investigated associations between primary parent and coparent anxiety with child anxiety, as well as the contribution of parental responsibility above and beyond parental anxiety. Based on genetics and childrearing studies that have found a familial link of anxiety, parent anxiety was hypothesized to be positively related to child anxiety for both primary parents and coparents. According to Majdandžić et al. (2012), coparenting relationships between anxious and non-anxious parents

may result in imbalanced levels of involvement in caregiving responsibilities, which may then be associated with their child's anxiety severity. Therefore, it was hypothesized that greater balance in the division of parental responsibility in caregiving duties would be related to lower child anxiety.

Exploratory analyses were then conducted to try and understand how these variables (i.e., primary parent anxiety severity, coparent anxiety severity, child anxiety severity, parental responsibility) were related to one another based on the adapted theoretical model. The study utilized a hierarchical regression model to examine how both primary parent anxiety and coparent anxiety were associated with the division of parental responsibility. Given that anxiety has been suggested to relate to coparenting (Majdandžić et al., 2012), it is essential to study primary parent and coparent anxiety severity together to obtain a more comprehensive understanding of the unique familial influences on child anxiety. We, therefore, investigated whether an interaction was present between primary parent anxiety and coparent anxiety and whether the interaction was associated with child anxiety and parental responsibility separately. In addition, coparenting has been named “the center about which family process evolves” (Weissman & Cohen, 1985); Feinberg (2003)'s Ecological Model has also suggested examining coparenting as a moderator, as coparenting may attenuate the relationship between risk factors and family outcomes. Thus, a post-hoc moderation model was conducted to explore whether parental responsibility moderated the relationship between parent and child anxiety severity for primary parents, coparents, and both parents combined.

Figure 1*Theoretical Model of Coparenting, Parent Anxiety, and Child Anxiety*

Note. Theoretical model adapted from Majdandžić et al. (2012). Parent anxiety refers to either primary parent *or* coparent anxiety. Arrows indicate directional relationships between variables. *Dashed lines* are moderators. Arrows *a* and *b* represent primary analyses, and arrows *c-f* represent exploratory analyses. Constructs that were not examined within the study are listed in *grey*.

Method

Participants

This secondary data analysis utilized data from a randomized controlled trial comparing the Turtle Program (Chronis-Tuscano et al., 2022; Danko et al., 2018), an early intervention targeting parenting and peer interactions, with Cool Little Kids, a gold-standard parenting

program for children with BI (Rapee et al., 2005). The full sample consisted of 151 children (42-65 months, $M_{age} = 52$ months) and their primary parents and coparents. Parents who reported engaging in more childcare duties and agreed to attend all sessions and assessments within the treatment study were referred to as primary parents. The other parents in the family were deemed the coparents. Families were somewhat demographically diverse (see Table 1). Most children in the study (91.4%) had two parents (both primary parents and coparents). Of the dyads, 115 (83.3%) consisted of female primary parents with male coparents. 19 (13.8%) dyads comprised of male primary parents with female coparents. Four dyads consisted of same-sex parents (2.9%), all of whom were female.

Data Overview

All data cleaning and statistical analyses were conducted using RStudio (R Core Team, 2023). Parental responsibility scores were only collected from families from Cohort 5 and onwards, so families from Cohort 1 to 4 were excluded from the study sample. Families missing data from the main variables of interest (parent and child anxiety) were also removed. The final study sample comprised of 81 children and their primary parents and coparents. Descriptive statistics were used to summarize the demographics of the study (see Table 1). The full demographics questionnaire is found in Appendix A.

Table 1*Demographics of the Study Sample (N = 81 Families)*

Primary Parent (n = 81)		Co-Parent (n = 81)		Child (n = 81)	
Age in years, <i>M(SD)</i>	39.01(5.05)	Age in years, <i>M(SD)</i>	39.77(4.97)	Age in months, <i>M(SD)</i>	52.38(5.64)
Sex (% female)	83.95	Sex (% female)	16.05	Sex (% female)	48.15
Race (%)		Race (%)		Race (%)	
White	60.49	White	60.49	White	48.15
Black/African American	8.64	Black/African American	9.88	Black or African American	7.4
Asian	27.16	Asian	20.99	Asian	19.75
Native Hawaiian/ Pacific Islander	1.23	Native Hawaiian/Pacific Islander	1.23	Native Hawaiian/Pacific Islander	0
American Indian/Alaska Native	0	American Indian/Alaska Native	0	American Indian/Alaska Native	0
Other	2.47	Other	4.94	Other	24.69
NA (Missing)	0	NA (Missing)	2.47	NA (Missing)	0
Education Level (%)		Education Level (%)			
Less than high school	0	Less than high school	0		
Some high school	0	Some high school	0		
High school degree/Equivalent	0	High school degree/Equivalent	1.23		
1 year of college	1.23	1 year of college	1.23		
2 years of college/Associate's degree	0	2 years of college/Associate's degree	4.94		
3 years of college/No Bachelor's	2.47	3 years of college/No Bachelor's	0		
Bachelor's degree/Equivalent	23.46	Bachelor's degree/Equivalent	34.57		
Master's degree/Equivalent	45.68	Master's degree/Equivalent	34.57		
Doctoral degree/Equivalent	27.16	Doctoral degree/Equivalent	20.99		
Income (% less than \$150K)	34.57				

Note. Variables included age in years/months, sex assigned at birth, race, parent education level, and household annual income level. Education and income levels were used as measures of socioeconomic status.

Measures

Child Anxiety Severity

The Anxiety Disorders Interview Schedule for Children for Diagnostic and Statistical Manual of Mental Disorders (DSM)–5 Parent Version (ADIS-P; Silverman & Albano, 2024), a gold-standard diagnostic interview, was administered to primary parents in the study to assess child anxiety severity before the beginning of treatment. The ADIS-P assessed for anxiety (generalized anxiety disorder [GAD], separation anxiety, specific phobia, social anxiety, selective mutism, panic disorder) and other disorders (attention-deficit/hyperactivity disorder [ADHD], oppositional defiant disorder [ODD], conduct disorder [CD], depression, and dysthymia) based on DSM-5 criteria. Previous versions of the ADIS-P have indicated good concurrent validity (Wood et al., 2002), inter-rater reliability (Lyneham et al., 2007), and test-

retest reliability (Silverman & Albano, 1996). Through the ADIS-P, clinicians rated whether disorders were present or absent and the level of impairment from 0 to 8 using the Clinician Severity Rating (CSR); scores greater than or equal to 4 represented clinically significant impairment. In addition, parents with subclinical anxiety received subclinical CSRs. Intraclass correlations (ICCs) for total anxiety ranged from 0.78 to 0.87 (Chronis-Tuscano et al., 2022). For this study, a sum of child anxiety CSRs was used to calculate total child anxiety severity (Ginsburg et al., 2015).

Parent Anxiety Severity

The Anxiety Disorders Interview Schedule for DSM 5–Adult & Lifetime Version (ADIS-5L; Brown & Barlow, 2014), a gold-standard semi-structured clinical interview, was administered to both primary parents and coparents to assess for anxiety severity before the beginning of treatment. The ADIS-5L assessed for anxiety (generalized anxiety disorder [GAD], separation anxiety, specific phobia, social anxiety, panic disorder) and depression based on DSM-5 criteria. Previous versions of the ADIS-5L have demonstrated good inter-rater agreement (Brown et al., 2001) and reliability (Di Nardo et al., 1993). Inter-rater reliability was also coded for twenty percent of the parents (ICC = 0.93; Chronis-Tuscano et al., 2022). Through the ADIS-5L, clinicians rated whether disorders were present or absent. Clinicians also rated the level of impairment from 0 to 8 using the Clinician Severity Rating (CSR); scores greater than or equal to 4 represented clinically significant impairment. Similar to child anxiety severity, a sum of parent anxiety CSRs was used in this study to calculate total parent anxiety severity.

Parental Responsibility Scale (PRS)

Primary parents' perceptions of their own and their coparents' division of responsibility in daily caretaking activities were measured using an adapted version of the Parental

Responsibility Scale (PRS; McBride & Mills, 1993; see Appendix A for full items). PRS Part 1 measures parents' relative degree of involvement with each other in 14 caregiving tasks, based on whether the primary parent, coparent, or both parents were always or usually responsible for the task. Greater total PRS scores (scores > 42) signify greater involvement in caregiving tasks. PRS has been found to have moderate internal consistency (McBride et al., 2002).

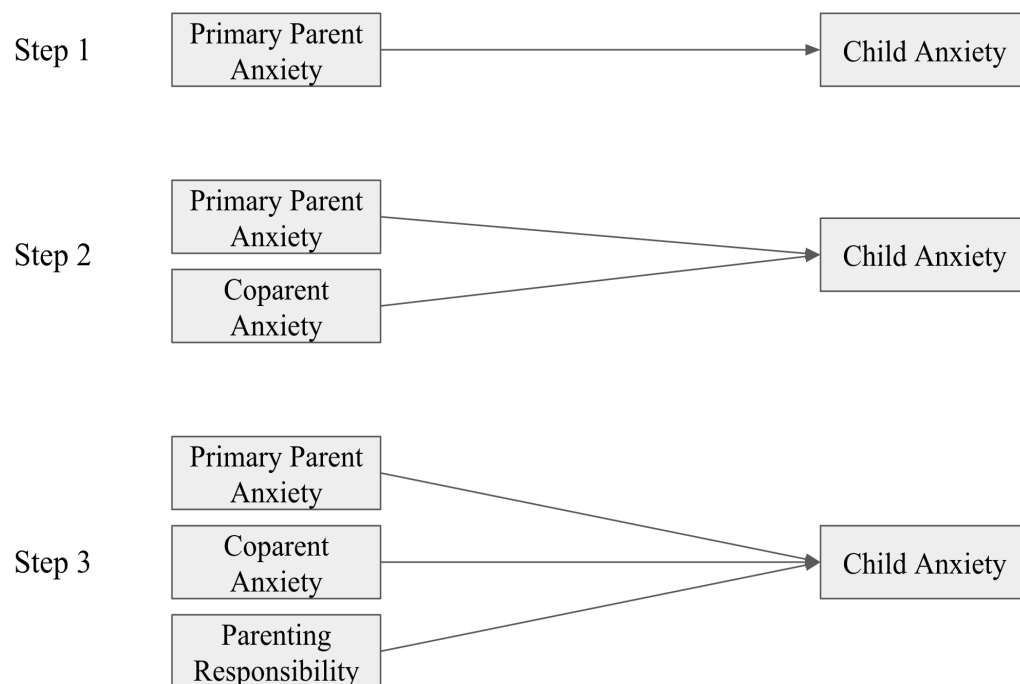
Data Analytic Plan

Primary Analysis: Hierarchical Multiple Regression Model (see Figure 2)

Hierarchical multiple regressions were conducted to investigate the relations between primary parent anxiety severity, coparent anxiety severity, parental responsibility, and child anxiety severity (see Figure 1, Arrows A and B). We first examined the relationship between primary parent and child anxiety severity (Step 1). Next, we added coparent anxiety severity to the model to investigate its unique effects on child anxiety severity when controlling for primary parent anxiety severity (Step 2). Finally, we added the division of parental responsibility to study whether parental responsibility was related to child anxiety severity when controlling for primary parent and coparent anxiety severity (Step 3). A hierarchical multiple regression model allows us to examine the unique effect of each variable while controlling for the other independent variables (see Figure 2).

Figure 2

Hierarchical Multiple Regression Model - Primary Parent Anxiety, Coparent Anxiety, and Parental Responsibility in Relation to Child Anxiety



Post-Hoc Exploratory Analyses

Parent Anxiety Severity and Parental Responsibility.

A hierarchical multiple regression model was conducted to investigate the relationships between primary parent anxiety severity, coparent anxiety severity, and parental responsibility (Figure 1, Arrow C). We first examined the relationship between primary parent anxiety and parental responsibility (Step 1). We then added coparent anxiety severity to the model to study the unique effects of primary and coparent anxiety on parental responsibility (Step 2).

Interaction of Parent Anxiety Severity in Relation to Child Anxiety. To explore the joint effects of primary parent anxiety and coparent anxiety on child anxiety, we conducted a

multiple linear regression analysis with an interaction term (Primary Parent Anxiety X Coparent Anxiety) to test whether the combined effects of parent anxiety could uniquely contribute to child anxiety (Figure 1, Arrow D).

Interaction of Parent Anxiety Severity in Relation to Parental Responsibility.

Another multiple linear regression analysis was conducted using the same interaction term (Primary Parent Anxiety X Coparent Anxiety) to examine the combined effects of parent anxiety on parental responsibility (Figure 1, Arrow E). In order to reduce multicollinearity, variables were first centered before being added to the models.

Moderation by Parental Responsibility. Since parental responsibility has been suggested as a moderator in risk factors and family outcomes (Feinberg, 2003; Majdandžić et al., 2012), moderated multiple regression analyses were conducted to investigate parental responsibility as a moderator in the relationship between parent and child anxiety severity (Figure 1, Arrow F). Variables were first centered to reduce multicollinearity. Three sets of models were run separately for primary parents, coparents, and both primary parents and coparents together.

Results

Correlations

Pearson's correlations were conducted with study variables to check for multicollinearity. Two correlation matrices were created, one for the study's main variables (i.e., child anxiety severity, primary parent anxiety severity, coparent anxiety severity, parental responsibility; see Table 2) and another for all the variables (see Appendix C). Means and standard deviations of were also included for the main variables.

Primary parent anxiety was positively correlated with coparent anxiety ($r = 0.41, p < 0.001$), such that greater primary parent anxiety severity was associated with greater coparent anxiety severity. Primary parent anxiety was negatively correlated with parental responsibility (i.e., less balance in the division of parental responsibility; $r = -0.27, p < 0.05$), meaning that greater primary parent anxiety was associated with lower balance between parents in their caregiving responsibilities. Primary parent was not correlated with child anxiety ($r = 0.12, p > 0.05$). Coparent anxiety, however, was positively correlated with child anxiety ($r = 0.29, p < 0.01$), meaning that greater coparent anxiety was associated with greater child anxiety. Coparent anxiety was not correlated with parental responsibility ($r = -0.06, p > 0.05$). Parental responsibility was negatively correlated with child anxiety ($r = -0.23, p < 0.01$), such that a greater balance in parental responsibility was associated with lower child anxiety severity.

Table 2

Correlation of Main Variables

Variable	Primary Parent Anxiety	Coparent Anxiety	Child Anxiety	Parental Responsibility	<i>M</i>	<i>SD</i>
Primary Parent Anxiety	—				1.9	2.4
Coparent Anxiety	.41***	—			2.26	3.02
Child Anxiety	.12	.29**	—		5.23	2.53
Parental Responsibility	-.27*	-.06	-.23*	—	33.32	7.78

Note. Pearson's correlation using main variables: primary parent anxiety severity, coparent anxiety severity, child anxiety severity, parental responsibility. Means (*M*) and standard deviations (*SD*) are included below each variable. * = $p < 0.05$. ** = $p < 0.01$. *** = $p < 0.001$.

Primary Analysis

In the hierarchical multiple regression model examining the link between parent and child anxiety severity, primary parent anxiety severity was not significantly related to child anxiety severity, $B = 0.13$, $SE = 0.12$, $t(79) = 1.1$, $p = 0.27$ (Step 1). However, once coparent anxiety severity was added to the model in Step 2, there was a significantly positive relationship between coparent anxiety severity and child anxiety severity, even when accounting for primary parents' anxiety severity, $B = 0.24$, $SE = 0.1$, $t(78) = 2.46$, $p = 0.02$. Primary parent anxiety severity was not related to child anxiety severity, $B = 0.01$, $SE = 0.13$, $t(78) = 0.04$, $p = 0.97$. In Step 3, parental responsibility was added to the model and found to be significantly related to child anxiety severity, $B = -0.07$, $SE = 0.04$, $t(77) = -2.05$, $p = 0.04$. Coparent and child anxiety severity remained positively related, $B = 0.25$, $SE = 0.1$, $t(77) = 2.61$, $p = 0.01$, whereas primary parent and child anxiety severity were still not significantly related, $B = -0.06$, $SE = 0.13$, $t(77) = -0.5$, $p = 0.62$. As shown in Table 3, the results suggested that greater coparent anxiety severity was associated with greater child anxiety severity. In addition, having greater balance in the division of parent responsibility in caregiving duties was related to lower child anxiety severity when accounting for primary parent and coparent anxiety severity.

Table 3

Hierarchical Multiple Regression Model - Primary Parent Anxiety, Coparent Anxiety, and Parental Responsibility in Relation to Child Anxiety

Variable	<i>B</i>	<i>SE B</i>	<i>t(df)</i>	<i>p</i>	<i>R</i> ²	ΔR^2
Step 1					.003	
Primary Parent Anxiety	0.13	0.12	1.1(79)	.27		
Step 2					.06	.06
Primary Parent Anxiety	0.01	0.13	0.04(78)	.97		
Coparent Anxiety	0.24	0.1	2.46(78)	.02*		
Step 3					.1	.04
Primary Parent Anxiety	-0.06	0.13	-0.5(77)	.62		
Coparent Anxiety	0.25	0.1	2.61(77)	.01*		
Parental Responsibility	-0.07	0.04	-2.05(77)	.04*		

Note. *B* = unstandardized coefficient; *SE B* = standard error; β = standardized coefficient; *R*² = adjusted R-squared. * = $p < 0.05$.

Post-Hoc Exploratory Analyses

Parent Anxiety and Parental Responsibility

A hierarchical multiple regression was conducted between parent anxiety severity (primary parent and coparent) and parental responsibility (see Table 4). Primary parent anxiety severity and parental responsibility were significantly related, $B = -0.87$, $SE = 0.35$, $t(79) = -2.46$, $p = 0.02$ (Step 1), such that greater anxiety in primary parents was related to less balance in the division of caregiving activities. Coparent anxiety severity was then added to the model but was not significantly related to parental responsibility, $B = 0.14$, $SE = 0.31$, $t(78) = 0.47$, $p = 0.64$ (Step 2). Primary parent anxiety severity, however, remained significantly related to parental responsibility, even when accounting for primary parents' and coparents' anxiety severity, $B = -0.94$, $SE = 0.39$, $t(78) = -2.43$, $p = 0.02$.

Table 4

Hierarchical Multiple Regression Model - Primary Parent Anxiety and Coparent Anxiety in Relation to Parental Responsibility

Variable	<i>B</i>	<i>SE B</i>	<i>t(df)</i>	<i>p</i>	<i>R</i> ²	ΔR^2
Step 1					.06	
Primary Parent Anxiety	-0.87	0.35	-2.46(79)	.02*		
Step 2					.05	-.009
Primary Parent Anxiety	-0.94	0.39	-2.43(78)	.02*		
Coparent Anxiety	0.14	0.31	0.47(78)	.64		

Note. *B* = unstandardized coefficient; *SE B* = standard error; β = standardized coefficient; *R*² = adjusted R-squared. * = $p < 0.05$.

Interaction of Parent Anxiety Severity in Relation to Child Anxiety

A multiple linear regression analysis was conducted to investigate how the combined effects of parent anxiety severity (Primary Parent x Coparent Anxiety) could relate to child anxiety severity (see Table 5). Independently, coparent anxiety severity was significantly positively associated with child anxiety ($B = 2.44 \times 10^{-1}$, $SE = 9.92 \times 10^{-2}$, $t(78) = 2.46$, $p = 0.02$), while primary parent anxiety severity was not related ($B = 5.04 \times 10^{-3}$, $SE = 1.25 \times 10^{-1}$, $t(78) = 0.04$, $p = 0.97$; Step 1). In Step 2, the interaction term (Primary Parent x Coparent Anxiety) was added to the model but was not significant ($B = 0.02$, $SE = 0.03$, $t(77) = 0.92$, $p = 0.36$). Neither primary parent anxiety ($B = -0.05$, $SE = 0.14$, $t(77) = -0.35$, $p = 0.73$) nor coparent anxiety ($B = 0.21$, $SE = 0.11$, $t(77) = 1.98$, $p = 0.05$) were significantly related to child anxiety in the full model.

Table 5*Parent Anxiety Severity (Primary Parent x Coparent) in Relation to Child Anxiety Severity*

Variable	B	SE B	t(df)	p	R²	ΔR²
Step 1					.06	
Primary Parent Anxiety	5.04 x 10 ⁻³	1.25 x 10 ⁻¹	0.04(78)	.97		
Coparent Anxiety	2.44 x 10 ⁻¹	9.92 x 10 ⁻²	2.46(78)	.02*		
Step 2					.06	-.002
Primary Parent Anxiety	-0.05	0.14	-0.35(77)	.73		
Coparent Anxiety	0.21	0.11	1.98(77)	.05		
Primary Parent Anxiety X Coparent Anxiety	0.02	0.03	0.92(77)	.36		

Note. B = unstandardized coefficient; SE B = standard error; β = standardized coefficient; R² = adjusted R-squared. * = p < 0.05.

Interaction of Parent Anxiety Severity in Relation to Parental Responsibility

Another multiple linear regression analysis was conducted to examine how the same combined effects of parent anxiety severity (Primary Parent x Coparent Anxiety) could relate to the balance in parental responsibility (see Table 6). In Step 1, primary parent anxiety severity was significantly negatively associated with parental responsibility ($B = -9.41 \times 10^{-1}$, $SE = 3.88 \times 10^{-1}$, $t(78) = -2.43$, $p = 0.02$), while coparent anxiety severity was not related ($B = 1.43 \times 10^{-1}$, $SE = 3.08 \times 10^{-1}$, $t(78) = 0.47$, $p = 0.64$). The interaction term (Primary Parent x Coparent Anxiety) was added to the model in Step 2 but was not significant ($B = 0.04$, $SE = 0.08$, $t(77) = 0.48$, $p = 0.63$). Primary parent anxiety also remained significantly related to parental responsibility in the full model ($B = -1.03$, $SE = 0.43$, $t(77) = -2.4$, $p = 0.02$), while coparent anxiety was still not related ($B = 0.09$, $SE = 0.33$, $t(77) = 0.27$, $p = 0.79$). Results suggested that primary parents experiencing more anxiety severity may have had less balance in their division of parental responsibility.

Table 6*Parent Anxiety Severity (Primary Parent x Coparent) in Relation to Parental Responsibility*

Variable	<i>B</i>	<i>SE B</i>	<i>t(df)</i>	<i>p</i>	<i>R</i> ²	ΔR^2
Step 1					.05	
Primary Parent Anxiety	-9.41 x 10 ⁻¹	3.88 x 10 ⁻¹	-2.43(78)	.02*		
Coparent Anxiety	1.43 x 10 ⁻¹	3.08 x 10 ⁻¹	0.47(78)	.64		
Step 2					.04	-.009
Primary Parent Anxiety	-1.03	0.43	-2.4(77)	.02*		
Coparent Anxiety	0.09	0.33	0.27(77)	.79		
Primary Parent Anxiety X Coparent Anxiety	0.04	0.08	0.48(77)	.63		

Note. *B* = unstandardized coefficient; *SE B* = standard error; β = standardized coefficient; *R*² = adjusted R-squared. * = $p < 0.05$.

Moderation by Parental Responsibility

Moderated multiple regression analyses were conducted to investigate parental responsibility as a moderator in the relationship between parent and child anxiety severity. Three sets of models were run separately for primary parents, coparents, and both parents together.

In the first set of analyses for primary parents (see Table 7), Step 1 examined the main effects of primary parent anxiety severity ($B = 7.1 \times 10^{-2}$, $SE = 1.2 \times 10^{-1}$, $t(78) = 0.59$, $p = 0.56$) and parental responsibility ($B = -6.85 \times 10^{-2}$, $SE = 3.71 \times 10^{-2}$, $t(78) = -1.85$, $p = 0.07$) on child anxiety severity, but neither were significantly related. The interaction term (Primary Parent Anxiety x Parental Responsibility) was added as a moderator in Step 2 but parental responsibility was not found to moderate the relationship between primary parent anxiety severity and child anxiety severity ($B = -0.01$, $SE = 0.02$, $t(77) = -0.8$, $p = 0.43$). In the full model, primary parent and parental responsibility were also not independently related to child anxiety (Primary Parent: $B = 0.01$, $SE = 0.14$, $t(77) = 0.09$, $p = 0.93$; Parental Responsibility: $B = -0.07$, $SE = 0.04$, $t(77) = -1.95$, $p = 0.06$).

Table 7*Moderation Analysis of Primary Parent Anxiety on Child Anxiety by Parental Responsibility*

Variable	<i>B</i>	<i>SE B</i>	<i>t(df)</i>	<i>p</i>	<i>R</i> ²
Step 1					.03
Primary Parent Anxiety	7.1 x 10 ⁻²	1.2 x 10 ⁻¹	0.59(78)	.56	
Parental Responsibility	-6.85 x 10 ⁻²	3.71 x 10 ⁻²	-1.85(78)	.07	
Step 2					.03
Primary Parent Anxiety	0.01	0.14	0.09(77)	.93	
Parental Responsibility	-0.07	0.04	-1.95(77)	.06	
Primary Parent Anxiety X Parental Responsibility	-0.01	0.02	-0.8(77)	.43	

Note. *B* = unstandardized coefficient; *SE B* = standard error; β = standardized coefficient; *R*² = adjusted R-squared. * = $p < 0.05$.

The second set of analyses was focused on coparents (see Table 8). In Step 1, coparent anxiety severity was found to be significantly positively related to child anxiety ($B = 2.34 \times 10^{-1}$, $SE = 8.85 \times 10^{-2}$, $t(78) = 2.65$, $p = 0.01$), while parental responsibility was not related ($B = -6.87 \times 10^{-2}$, $SE = 3.43 \times 10^{-2}$, $t(78) = -2.0$, $p = 0.05$). The interaction term (Coparent Anxiety x Parental Responsibility) was then added as a moderator in Step 2, but parental responsibility was not found to moderate the relationship between coparent anxiety severity and child anxiety severity ($B = -0.02$, $SE = 0.01$, $t(77) = -1.17$, $p = 0.25$). However, in the full model, coparent and parental responsibility were both independently related to child anxiety (Coparent: $B = 0.21$, $SE = 0.09$, $t(77) = 2.23$, $p = 0.03$; Parental Responsibility: $B = -0.08$, $SE = 0.04$, $t(77) = -2.2$, $p = 0.03$).

Table 8*Moderation Analysis of Coparent Anxiety on Child Anxiety by Parental Responsibility*

Variable	<i>B</i>	<i>SE B</i>	<i>t(df)</i>	<i>p</i>	<i>R</i> ²	ΔR^2
Step 1					.11	
Coparent Anxiety	2.34×10^{-1}	8.85×10^{-2}	2.65(78)	.01*		
Parental Responsibility	-6.87×10^{-2}	3.43×10^{-2}	-2.0(78)	.05		
Step 2					.11	0
Coparent Anxiety	0.21	0.09	2.23(77)	.03*		
Parental Responsibility	-0.08	0.04	-2.2(77)	.03*		
Coparent Anxiety X Parental Responsibility	-0.02	0.01	-1.17(77)	.25		

Note. *B* = unstandardized coefficient; *SE B* = standard error; β = standardized coefficient; *R*² = adjusted R-squared. * = $p < 0.05$.

The third set of analyses focused on total parent anxiety severity, a sum of primary parents' and coparents' anxiety severity, and whether it would moderate the relationship between parent and child anxiety (see Table 9). In Step 1, total parent anxiety severity was found to be significantly positively related to child anxiety ($B = 1.25 \times 10^{-1}$, $SE = 6.05 \times 10^{-2}$, $t(78) = 2.06$, $p = 0.04$), while parental responsibility was not ($B = -6.1 \times 10^{-2}$, $SE = 3.54 \times 10^{-2}$, $t(78) = -1.72$, $p = 0.09$). The interaction term (Total Parent Anxiety x Parental Responsibility) was then added as a moderator in Step 2, but parental responsibility was not found to moderate the relationship between total parent anxiety severity and child anxiety severity ($B = -0.01$, $SE = 0.01$, $t(77) = -0.92$, $p = 0.36$). In the full model, both total parent anxiety and parental responsibility were not significantly related to child anxiety (Total Parent Anxiety: $B = 0.1$, $SE = 0.07$, $t(77) = 1.53$, $p = 0.13$; Parental Responsibility: $B = -0.07$, $SE = 0.04$, $t(77) = -1.86$, $p = 0.07$).

Table 9

Moderation Analysis of Total Parent Anxiety (Primary & Coparent Anxiety) on Child Anxiety by Parental Responsibility

Variable	<i>B</i>	<i>SE B</i>	<i>t(df)</i>	<i>p</i>	<i>R</i> ²	ΔR^2
Step 1					.08	
Total Parent Anxiety	1.25 x 10 ⁻¹	6.05 x 10 ⁻²	2.06(78)	.04*		
Parental Responsibility	-6.1 x 10 ⁻²	3.54 x 10 ⁻²	-1.72(78)	.09		
Step 2					.08	0
Total Parent Anxiety	0.1	0.07	1.53(77)	.13		
Parental Responsibility	-0.07	0.04	-1.86(77)	.07		
Total Parent Anxiety X Parental Responsibility	-0.01	0.01	-0.92(77)	.36		

Note. *B* = unstandardized coefficient; *SE B* = standard error; β = standardized coefficient; *R*² = adjusted R-squared. * = $p < 0.05$.

Discussion

This study is among the few to empirically examine the familial link of anxiety severity in relation to coparenting and the very first study to specifically study the division of parental responsibility in families of young children high in BI. The study was also unique in that it incorporated *both* primary parents' and coparents' anxiety severity ratings, as measured through gold-standard diagnostic interviews.

The most significant findings in the current study were that coparent anxiety severity and parental responsibility were significantly related to child anxiety severity, even when accounting for primary parent anxiety severity. The positive relationship between coparent anxiety severity and child anxiety severity suggests that coparents who experienced greater overall anxiety were more likely to have children who also experienced greater overall anxiety severity. However, the finding that primary parent anxiety severity was not significantly related to child anxiety severity

was surprising due to the extensive literature that has supported the link between anxiety severity among primary parents and their children (Beidel & Turner, 1997).

The link between primary parent anxiety and child anxiety may have previously been supported because most studies have only collected data from primary parents (especially mothers) rather than coparents. The findings of this study highlight the importance of considering the role of coparent anxiety in addition to primary parent anxiety. In the literature, it has been found that parents in traditional nuclear families (mothers and fathers) hold different relationships with their children. For example, it has been found that anxious fathers may encourage less autonomy in their children than non-anxious mothers (Bögels et al., 2008). In addition, fathers often exhibit more challenging parenting behaviors, which may help promote more independent and curious attitudes in children (e.g., rough and tumble play; Majdandžić et al., 2014). When anxious, fathers' lack of challenging behaviors may also play an important role in the development of child anxiety severity (Bögels & Phares, 2008). Therefore, more studies related to anxiety severity in the family should gather information from *both* parents involved to further elucidate the link between parent and child anxiety severity.

In addition, the finding that parental responsibility was strongly related to child anxiety severity suggests that having more balance in the division of caregiving activities could be important for lower child anxiety severity. It has been proposed that more inequality in the division of caregiving responsibilities may lead to dissatisfaction and conflict in coparenting, and such dissatisfaction may bring about child anxiety (Majdandžić et al., 2012). Imbalance may also reflect marital dissatisfaction, but the study did not directly measure this. As parental responsibility has only primarily been used to study the relationship between parental stress and

child temperament (McBride et al., 2002), more studies of parental responsibility are needed to investigate its role within families with anxiety and/or children high in BI.

To further understand why coparent anxiety severity and balance in parental responsibility may be vital to consider when examining the familial link of anxiety, post-hoc exploratory analyses were conducted. To our surprise, primary parent anxiety severity was significantly negatively related to parental responsibility while coparent anxiety severity was not related, despite our main findings linking coparent anxiety severity with child anxiety severity. These results suggested that primary parents with greater overall anxiety severity perceived less balance in parenting involvement in caregiving activities, which meant that one parent in the coparenting relationship might have been taking on more parenting responsibilities than the other. The imbalance in parental responsibility may be demonstrated by the theory by Majdandžić et al. (2012), which proposes that anxious parents may undermine or discount their partner's parenting and take on more responsibilities if they feel their partner is not doing enough. Alternatively, anxious parents may withdraw from parenting interactions and rely on their partners more. Therefore, when assessing for and treating anxiety in families, it may be vital to consider how parents tend to handle their anxiety relating to parenting responsibilities. It should be noted, however, that this result may also result from primary parents serving as the sole informant for parental responsibility, so more investigation into the measure with both parents as raters is necessary.

Interestingly, primary parent and coparent anxiety did not interact with one another in predicting child anxiety and parental responsibility, suggesting that the individual effects of each parent's anxiety may be more important than the combined effect of parent anxiety severity. Independently, greater coparent anxiety severity was again found to be related to greater child

anxiety, and greater primary parent anxiety was related to less balance in parental responsibility between parents, supporting findings from the main analyses.

Further, despite finding that parental responsibility was individually associated with both child anxiety severity and primary parent anxiety severity in separate models, parental responsibility did not moderate the relationship between parent and child anxiety severity for either primary parents, coparents, or both primary parents and coparents together (total parent anxiety severity). These results suggest that the degree to which parents are balanced in their involvement in parenting responsibilities does not significantly alter the influence of parent anxiety on child anxiety. The lack of a moderation effect may be due to several reasons. It is possible that due to the smaller sample size, there was a lack of power to detect moderation. In addition, the balance of involvement in parenting responsibilities itself may not be able to fully capture how coparenting plays a role in the familial link of anxiety severity, as it is only one of four components of coparenting, as theorized by Feinberg (2003). It is also possible that other parenting factors that have been linked to anxiety disorders, such as overprotection and overcontrol, may be able to better explain the relationship between parent and child anxiety (Chorpita & Barlow, 1998; Borelli et al., 2015; McLeod et al., 2007).

Based on the findings, it is evident that more empirical studies are needed to investigate the relationship between coparenting and the familial link of anxiety, specifically in the area of parental responsibility.

Limitations and Future Directions

One of the main limitations of the study was that parental responsibility was only rated by primary parents. Although the parental responsibility measure called for primary parents to rate the overall split in involvement and consider how involved they, their coparents, and both

parents together were in caregiving activities, these ratings were still only based on the perception of one parent. It is, therefore, difficult to determine whether the study's findings related to balance were accurate or if they had been skewed based on primary parents' perceptions. Future studies should consider *both* parents' perceptions when assessing parental responsibility to obtain a clearer picture of the overall coparenting and family relationships.

In addition to measuring parents' involvement in caregiving activities, future studies should also incorporate measures that target additional coparenting components (i.e., support/undermining, childrearing agreement, family interaction). For example, coparental support is a key factor proposed to shape the coparenting relationship (Majdandžić et al., 2012). For parents with anxiety, having a supportive relationship may allow them to be able to work with their coparent and divide caregiving responsibilities based on strengths and specific anxiety-related qualities, which can help in allowing a healthier coparenting relationship. Measures such as coparental conflict and marital satisfaction could also be essential to incorporate. Conflict between parents has been suggested to negatively impact child anxiety and increase anxiety symptoms in parents. Lower marital satisfaction has also been associated with anxiety disorders (Majdandžić et al., 2012; Whisman et al., 2004).

Outside of coparenting, it is also crucial to consider how parenting behaviors may play a role in the relationship between parent and child anxiety. This study was focused on the coparenting relationship and did not examine childrearing measures since primary parents were the sole rater of such measures. However, gathering information from both parents on their parenting behaviors that have been linked with anxiety disorders could be essential in elucidating the relationship between parent and child anxiety as well as the coparenting relationship. For example, some studies have found a link between parental overcontrol and child anxiety

(Chorpita & Barlow, 1998; Borelli et al., 2015; McLeod et al., 2007). That said, such findings have not yet been supported by meta-analytic data, so more studies are needed to clarify the role of parenting behaviors in families experiencing anxiety (Möller et al., 2016).

In addition, it may be beneficial for future research to measure parenting stress. Prior studies have found a strong negative relationship between parental stress and wellbeing among parents (Rusu et al., 2025). Parenting stress has also been associated with parents' perceptions of child temperament (McBride et al., 2002). Therefore, including measures of parenting stress levels may provide insight into how stress related to caregiving may affect both parent and child well-being and involvement in caregiving activities.

It would also be helpful to obtain information on the family structure of participants, as this study consisted of two-parent families. In a meta-analysis on the effect of coparenting on child adjustment, family structure was found to moderate the relationship between coparenting and internalizing behaviors (Teubert & Pinquart, 2010). Knowing whether other caretakers are involved in a child's care, such as a nanny or a grandparent, could provide more context as to why balance may be higher or lower between parents in their involvement in caregiving. This knowledge could also suggest which family member(s) should be involved in studies or treatments. It would also be valuable to know the number of children in the home and whether they also experience anxiety, behavioral inhibition, or other diagnoses, as these factors could further exacerbate the anxiety severity of the parents and children of the study.

Further, it would be beneficial to utilize a mixed-methods approach and gather qualitative data (in addition to quantitative data) through interviews with families. Parents could provide information on how they split their caregiving and why, which could help us better understand their level of balance in parental responsibility. For example, a parent working a full-time job

may not have as much time to help with caregiving duties as their coparent, who may be working a part-time job, which could explain lower parental responsibility scores. Interviews could also help us understand how parents manage their anxiety and whether they tend to become more or less involved in caregiving duties as a result of the anxiety.

It should also be noted that this study was a cross-sectional, secondary data analysis, meaning it is impossible to establish the directionality of effects. For example, it is difficult to determine whether the anxiety of the parents and/or children in the study affected the amount of balance in caregiving responsibilities or whether the balance itself affected the anxiety severity of the parents and/or children. To truly test the directionality of these relationships, a longitudinal study where primary parent anxiety severity, coparent anxiety severity, child anxiety severity, and parental responsibility were collected at different time points would be needed.

The study was also limited in the diversity of its sample, as over half of the participants consisted of White families who made more than \$150,000 and had received a Bachelor's degree or equivalent. Income and education levels were utilized as markers of socioeconomic status. Further, the study mainly consisted of parents who were married (95.1% of primary parents and 93.8% of coparents). The demographic characteristics of our study sample may limit the extent to which our findings can be generalized to other groups. Therefore, future studies should aim to recruit families from a wide range of demographics to confirm study findings.

There is a need for more empirical research to support and elucidate our findings regarding coparents and division of parental responsibility in families experiencing anxiety. This study serves as a strong starting point to encourage researchers to consider the role of coparenting and *both* parents' anxiety when examining the familial link between parent and child anxiety severity. Gaining more clarity in these relationships through future empirical studies

could have essential implications for clinicians in how they seek to understand and treat anxiety symptoms for children high in BI and their parents.

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Appendix A

Parental Responsibility Scale

Child's Name: _____

Date Completed: _____

Parental Responsibility Scale – Part 1

The following items are about activities that many parents do with their young children. We would like you to tell us who has the responsibility for each activity. **Responsibility in this sense means who remembers, plans, and schedules the activity, regardless of who actually ends up doing it.** It is possible to have responsibility for an activity without actually doing it. Circle the number that is most appropriate for each item.

Activities:

	<u>Mother Always Responsible</u>	<u>Mother Usually Responsible</u>	<u>Both Parents Responsible</u>	<u>Father Usually Responsible</u>	<u>Father Always Responsible</u>
1. Take the child to preventive health care clinic.	1	2	3	4	5
2. Buy child's clothes.	1	2	3	4	5
3. Buy child's toys.	1	2	3	4	5
4. Supervise a part of morning routine, e.g., dressing, breakfast, etc.	1	2	3	4	5
5. Clean child's room.	1	2	3	4	5
6. Determine when to take child to pediatrician due to illness.	1	2	3	4	5
7. Determine appropriate clothes for child to wear.	1	2	3	4	5

8. Spend special time at bedtime, e.g., read a story.	1	2	3	4	5
	<u>Mother Always Responsible</u>	<u>Mother Usually Responsible</u>	<u>Both Parents Responsible</u>	<u>Father Usually Responsible</u>	<u>Father Always Responsible</u>
9. Take child on special trip/ outing, e.g., zoo, park, etc.	1	2	3	4	5
10. Make babysitting arrangements.	1	2	3	4	5
11. Determine and implement discipline strategies.	1	2	3	4	5
12. Stay at home or make child care arrangements when child is sick.	1	2	3	4	5
13. Determine appropriate time and putting child to bed at night.	1	2	3	4	5
14. Selecting a child care arrangement for child.	1	2	3	4	5

Appendix B
Demographics Questionnaire

Please fill out this form in its entirety. This information will be used for research purposes only.

1. Date _____

Information about your child

2. Child's Name _____

3. Child's D.O.B. ____/____/____

4. Child's gender

1. Male 2. Female

5. Child's age (in months) _____

6. Child's ethnicity:

1. Hispanic or Latino 2. Not Hispanic of Latino

7. Child's race (please circle all that apply):

1. American Indian or Alaska Native
2. Asian
3. Black or African American
4. Native Hawaiian or Other Pacific Islander
5. White
6. Other: _____

8. Child's preschool or daycare: _____

9. Please indicate if this is a preschool or daycare: _____

10. How many hours/days does your child attend preschool/daycare?

_____ hrs _____ days/week

11. When did your child start preschool/daycare? _____ (month/year)

12. Has your child been diagnosed with any psychiatric, emotional or behavioral disorder?

1. Yes 2. No

13. If so, what diagnosis and by whom?

14. Please circle the names of any medications that your child is currently taking

- | | | | |
|----------------|----------------|----------------|---------------------|
| 1. Adderall | 11. Anafranil | 21. Zoloft | 31. Eskalith |
| 2. Adderall XR | 12. BuSpar | 22. Clozaril | 32. Lithobid |
| 3. Concerta | 13. Effexor | 23. Haldol | 33. Tegretol |
| 4. Cylert | 14. Luvox | 24. Risperdal | 34. Other (specify) |
| 5. Dexadrine | 15. Paxil | 25. Seroquel | _____ |
| 6. Dextrostat | 16. Prozac | 26. Mellaril | |
| 7. Focalin | 17. Serzone | 27. Zyprexa | |
| 8. Metadate | 18. Sinequan | 28. Orap | |
| 9. Ritalin | 19. Tofranil | 29. Cibalith-S | |
| 10. Strattera | 20. Wellbutrin | 30. Depakote | |

15. If your child is taking medication, please specify the dose _____

and dose schedule (how often he/she takes the medication) _____

16. How old was your child I he/she first began medication for any psychiatric disorder?

- 2 3 4 5

17. Which medication did he/she begin taking? _____

18. For what problem did he/she begin taking this medicine?

1. ADHD
2. Depression
3. Bipolar disorder
4. Anxiety disorder or anxiety problems
5. Schizophrenia
6. Post traumatic stress disorder
7. Dysthymia (feeling down or sad most days)
8. Other (specify) _____

19. Is your child currently receiving treatment other than medication from a psychologist, psychiatrist, pediatrician, or other professional for treatment of mental health, emotional, or behavioral problems?

1. Yes 2. No

20. If yes, please circle what type of treatment your child is receiving (you may circle more than 1)

1. Individual therapy
2. Group therapy
3. Family therapy
4. Parent training group
5. Self help for drug or alcohol problems (e.g. Alcoholics Anonymous)
6. Summer program
7. School intervention
8. After-school program
9. Other (specify) _____

21. Please circle what type of professional works with your child (you may circle more than 1)

1. Psychologist
2. Psychiatrist
3. Social worker 4. Physician (MD) 5. Counselor
6. Teacher
7. Other (specify) _____

Information about yourself

22. Your name _____

23. Your age _____

24. Your D.O.B. _____ / _____ / _____

25. Your Sex:

1. Female 2. Male

26. Your ethnicity:

1. Hispanic or Latino 2. Not Hispanic or Latino

27. Your race (please circle all that apply):

1. American Indian or Alaska Native
2. Asian
3. Black or African American
4. Native Hawaiian or Other Pacific Islander
5. White
6. Other: _____

28. Please choose which of the following best describes your relationship with the above-named child:

1. Biological Mother
2. Biological Father
3. Adoptive Mother
4. Adoptive Father
5. Step-Mother
6. Step-Father
7. Other: _____

29. Your address

30. Your phone number (home) _____ (business) _____ (cell) _____

31. What is the best number to reach you? 1. Home 2. Business 3. Cell

32. What is your Email address? _____

33. What is the highest educational degree you have completed?

1. Some high school
2. High school degree or equivalent
3. One year of college

4. Two years of college, or associate's degree
 5. Three years of college, no Bachelor's degree
 6. Bachelor's degree or equivalent
 7. Master's degree or equivalent
 8. Doctoral degree or equivalent
 9. Other (specify)
-

34. What is your occupation? _____

35. What is your marital status?

1. Never married
2. Married
3. Separated
4. Divorced
5. Widowed

36. Total yearly family income _____

37. Please circle any psychological problems you may experience currently or have experienced in the past

1. Attention problems
2. Hyperactivity problems
3. Depression
4. Mania (extended periods of abnormally elevated mood)
5. Substance use problems
6. Psychosis
7. Post traumatic stress
8. Interpersonal problems
9. Other (specify) _____

38. Are you currently taking medication for a psychological or psychiatric disorder?

1. Yes
2. No

39. If yes, please circle what type of medication you are taking

1. Stimulant ADHD medication [i.e., Concerta, Ritalin (methylphenadate), Adderall (amphetamine)]
2. Non-stimulant ADHD medication [i.e., Strattera (atomoxetine)]

3. Antidepressants or anti-anxiety medication [i.e., Prozac (fluoxetine), Zoloft (sertraline), Wellbutrin (bupropion)]

4. Antipsychotic medications [i.e., Risperdal (risperidone), Clozaril (clozapine)]

5. Mood stabilizing medications [i.e., Depakote (valproic acid), Lithobid (lithium carbonate)]

6. Other (specify)

40. Are you currently receiving non-medication treatment (i.e., therapy) for your own psychological problems?

1. Yes 2. No

41. If yes, please circle what type of treatment you are currently receiving (you may circle more than 1)

1. Individual therapy

2. Group therapy

3. Family therapy

4. Self help for drug or alcohol problems (e.g. Alcoholics Anonymous)

5. Other (specify) _____

42. Have you been diagnosed with any chronic health conditions, such as high blood pressure, cardiovascular disease, diabetes, etc.?

1. Yes 2. No

43. If yes, please list the health conditions you have been diagnosed with:

44. Are you currently taking any medications for your chronic health conditions?

1. Yes 2. No

45. If so, please list: _____

46. Do you live with the above named child? 1. Yes 2. No

Information about your child's co-parent (**IMPORTANT NOTE: Only complete this section if your child's co-parent has consented to participate in this study and he is *NOT* completing his own questionnaires).** If you do not need to complete this section please skip to item 88.

47. Co-parent's name _____

48. Co-parent's age _____

49. Co-parent's D.O.B. _____ / _____ / _____

50. Co-parent's sex: 1. Female 2. Male

51. Co-parent's ethnicity:

1. Hispanic or Latino 2. Not Hispanic or Latino

52. Co-parent's race (please circle all that apply):

1. American Indian or Alaska Native
2. Asian
3. Black or African American
4. Native Hawaiian or Other Pacific Islander
5. White
6. Other: _____

53. Please choose which of the following best describes the relationship with the above-named child:

1. Biological Mother
2. Biological Father
3. Adoptive Mother
4. Adoptive Father
5. Step-Mother
6. Step-Father
7. Other: _____

54. Co-parent's address

55. Co-parent's phone number (home) _____ (business) _____ (cell) _____

56. What is the best number to reach co-parent? 1. Home 2. Business 3. Cell

57. Co-parent's Email address _____

58. What is the highest educational degree your child's co-parent has completed?

1. Some high school
 2. High school degree or equivalent
 3. One year of college
 4. Two years of college, or associate's degree
 5. Three years of college, no Bachelor's degree
 6. Bachelor's degree or equivalent
 7. Master's degree or equivalent
 8. Doctoral degree or equivalent
 9. Other (specify)
-

59. What is your child's co-parent's occupation?

60. What is your child's co-parent's marital status?

1. Never married
2. Married
3. Separated
4. Divorced
5. Widowed

61. Has your child's co-parent ever been diagnosed with a psychological or psychiatric disorder?

1. Yes
2. No

62. Please circle any psychological problems your child's co-parent may be experiencing currently or has experienced in the past

1. Attention problems
2. Hyperactivity problems
3. Depression
4. Mania (extended periods of abnormally elevated mood)
5. Substance use problems
6. Psychosis
7. Post traumatic stress

8. Interpersonal problems

9. Other (specify) _____

63. Is your child's co-parent currently taking medicine for a psychological or psychiatric disorder?

1. Yes 2. No

64. If yes, please circle what type of medication your child's co-parent is currently taking

1. Stimulant ADHD medication [i.e., Concerta or Ritalin (methylphenadate), Adderall (amphetamine)]

2. Non-stimulant ADHD medication [i.e., Strattera (atomoxetine)]

3. Antidepressants or antianxiety medication [i.e., Prozac (fluoxetine), Zoloft (sertraline), Wellbutrin (bupropion)]

4. Antipsychotic medications [i.e., Risperdal (risperdone), Clozaril (chlozapine)]

5. Mood stabilizing medications [i.e., Depakote (valproic acid), Lithobid (lithium carbonate)]

6. Other _____

65. Is your child's co-parent currently receiving non-medication treatment (i.e., therapy) for his own psychological problems?

1. Yes 2. No

66. If yes, please circle what type of treatment your child's co-parent is currently receiving (you may circle more than 1)

1. Individual therapy

2. Group therapy

3. Family therapy

4. Self help for drug or alcohol problems (e.g. Alcoholics Anonymous)

5. Other (specify) _____

67. If your child's co-parent is in treatment, please circle what type of professional he is seeing

1. Psychologist

2. Psychiatrist

3. Social worker 4. Physician (MD) 5. Counselor

6. Teacher

7. Other (specify) _____

68. Does your child's co-parent live with the above named child?

1. Yes

2. No

Appendix C

Correlation Table of Study Variables

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. PP Anxiety	—	.41*	.12	-.27*	.04	.03	-.19	.19	-.17	-.16	.25*	.2	.21	-.1	-.08	-.26	-.11	-.04
2. CP Anxiety	.41*	—	.29*	-.06	.08	.04	-.09	.03	.16	-.09	.11	.04	.14	.11	.1	-.12	-.16	-.15
3. Child Anxiety	.12	.29*	—	-.23*	.16	.24*	-.06	.26*	-.16	-.07	.05	.06	.16	.04	-.06	-.05	.1	-.01
4. PRS	-.27*	-.06	-.23*	—	-.01	-.2	.03	-.58*	.56*	.01	-.13	-.15	.02	-.22	-.08	.08	.12	0
5. PP Age	.04	.08	.16	-.01	—	.75*	.08	-.12	.08	-.1	-.06	.08	.05	.17	.05	.11	-.04	.15
6. CP Age	.03	.04	.24*	-.2	.75*	—	.09	-.01	.03	-.07	-.08	-.07	-.04	.17	-.06	.1	.02	.16
7. Child Age	-.19	-.09	-.06	.03	.08	.09	—	-.01	.06	-.2	-.04	.05	-.05	-.04	-.07	-.01	.2	.2
8. PP Sex	.19	.03	.26*	-.58*	-.12	-.01	-.01	—	-.95*	.02	.06	.3*	.15	-.03	-.16	.01	-.03	-.11
9. CP Sex	-.17	.16	-.16	.56*	.08	.03	.06	-.95*	—	-.03	-.06	-.27*	-.14	.03	.15	-.04	.04	.05
10. Child Sex	-.16	-.09	-.07	.01	-.1	-.07	-.2	.02	-.03	—	-.02	.09	-.05	.22	.19	.12	-.18	-.24*
11. PP Race	.25*	.11	.05	-.13	-.06	-.08	-.04	.06	-.06	-.02	—	.57*	.69*	.15	.14	-.21	-.15	.27*
12. CP Race	.2	.04	.06	-.15	.08	-.07	.05	.3*	-.27*	.09	.57*	—	.65*	.2	.18	0	-.15	.08
13. Child Race	.21	.14	.16	.02	.05	-.04	-.05	.15	-.14	-.05	.69*	.65*	—	.1	.09	-.12	-.12	.11
14. PP Marital Status	-.1	.11	.04	-.22	.17	.17	-.04	-.03	.03	.22	.15	.2	.1	—	.73*	-.07	-.44	-.04
15. CP Marital Status	-.08	.1	-.06	-.08	.05	-.06	-.07	-.16	.15	.19	.14	.18	.09	.73*	—	-.03	-.25*	-.15
16. PP Education	-.26*	-.12	-.05	.08	.11	.1	-.01	.01	-.04	.12	-.21	0	-.12	-.07*	-.03	—	.25*	-.05
17. CP Education	-.11	-.16	.1	.12	-.04	.02	.2	-.03	.04	-.18	-.15	-.15	-.12	-.44*	-.25*	.25*	—	.24*
18. PP Income	-.04	-.15	-.01	0	.15	.16	.2	-.11	.05	-.24*	.27*	.08	.11	-.04	-.15	-.05	.24*	—

Note. Pearson's correlation of study variables. Abbreviations: PP = primary parent; CP = coparent; PRS = Parental Responsibility Scale. * = $p < 0.05$.

Appendix D

Histograms of Main Study Variables

Figure D1

Histogram of Primary Parent Anxiety Severity Scores

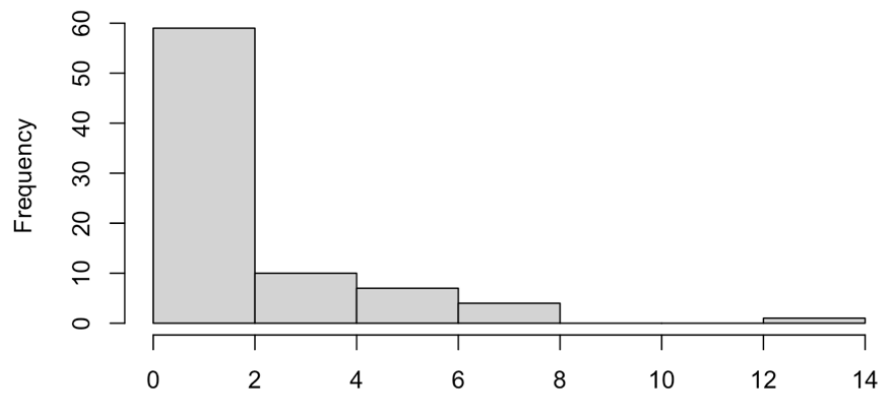


Figure D2

Histogram of Coparent Anxiety Severity Scores

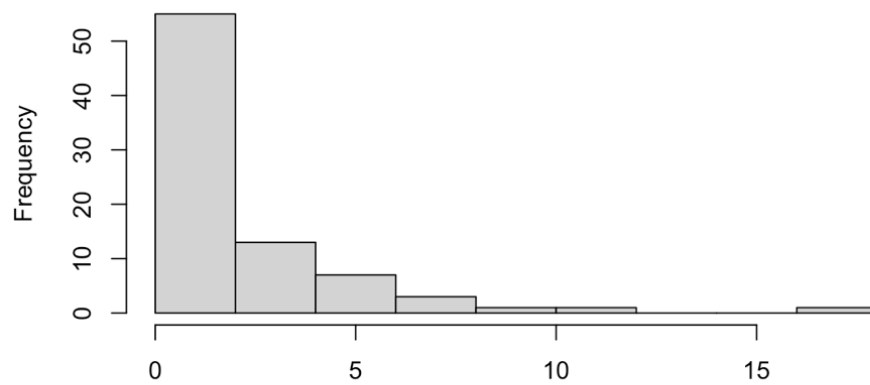
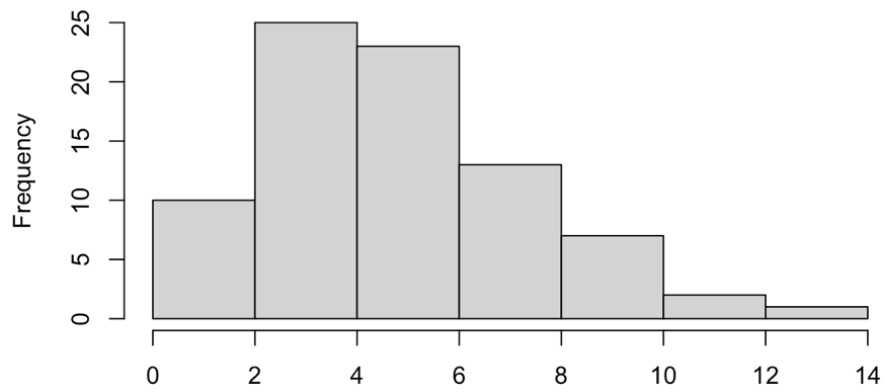


Figure D3*Histogram of Child Anxiety Severity Scores***Figure D4***Histogram of Parental Responsibility Scores*