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Parenting Styles and Their Relationship with Anxiety in Children

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Abstract

The current study aimed to determine the relationship between two aspects of parenting styles, demandingness and responsiveness, and the presence of anxiety in children. Additionally, this research aimed to identify differences between mothers and fathers in regard to how these aspects of their parenting styles affect child anxiety. Demandingness and responsiveness were explored as independent variables in order to determine how they relate to child anxiety, as well as how the relationships between the independent variables and anxiety differ by demographics including child gender, and parental age, race, income, and educational level. Results indicate differences in child anxiety reported by fathers in regard to race and age. Specifically, being black and being a younger father served as predictors for child anxiety. Additionally, responsiveness varied in fathers by education level. Lastly, fathers showed a significant negative relationship between responsiveness and child anxiety indicating that more responsive fathers have children with lower anxiety. Mothers did not show any significant relationships in regard to child anxiety. However, results indicated a difference in responsiveness in regard to education levels. Specifically, results showed that mothers who had received Some High School Education or Less were less responsive. Analyses suggest the need for future research regarding the gaps in literature pertaining to mothers and parenting styles, as well as why demandingness and responsiveness characteristics differ by demographics, specifically in a large minority sample.

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Introduction

Thirty-two percent of children experience anxiety before adolescent years and 9% experience anxiety as young as preschool (Carpenter, Puliafico, Kurtz, Pincus, & Comer, 2014; Cooper-Vince, Chan, Pincus, & Comer, 2014;). Additionally, studies show that anxiety in childhood usually leads to anxiety during adulthood along with additional mood and externalizing disorders (Carpenter et al., 2014). It is important to understand the presence of anxiety in children, as avoiding anxiety in childhood may ultimately contribute to lack of anxiety in teenage years and young adulthood.

The majority of existing literature surrounding parenting and child anxiety focuses on populations that consist of upper or middle class, Caucasian, married parents (Carpenter et al., 2014; Cooper-Vince et al., 2014; Francis, 2014). Further, very few studies involve fathers, but rather focus primarily on mothers in terms of parenting. The current study addressed gaps in literature pertaining to this topic, and explored the relationship between two aspects of parenting styles and anxiety in children while considering understudied populations. Specifically, it focused on a minority sample consisting of younger than average parents from lower socioeconomic statuses, who also represent a variety of ethnic backgrounds. Additionally, this research aimed to identify differences between mothers and fathers in regard to how aspects of their parenting styles affect child anxiety, and specifically shed light on fathers as single parents.

Significance

The present study used Baumrind's parenting style theory as a theoretical framework (1991). Baumrind explained three types of parenting styles based on the constructs of demandingness and responsiveness (Soysa & Weiss, 2014). Demandingness, as it pertains to this theory, is the level of control that parents exert over their children. This control may be associated with academics, athletics, or household and social activities. Responsiveness is the warmth and positive affection parents show their children. Baumrind's parenting styles are defined by either the presence or absence of these two characteristics, but both constructs occur on a continuum with varying degrees of strength (Soysa & Weiss, 2014).

The first parenting style is authoritarian, and consists of high demandandingness in several developmental areas and low responsiveness. Parents with this style set high expectations for their children and expect that they will be reached with little help or support. Authoritarian parents typically display little warmth and affection toward their children and do not stray from their rigid parenting techniques (Soysa & Weiss, 2014). Authoritative parents represent the second style, and are high in demandingness, but also high in responsiveness with their children. For example, these parents may set high standards for their children, however they are willing to explain why, and provide emotional support to help their children achieve goals. Additionally, these parents are more likely to support their children in obtaining goals through compromise, explanation, discussion, and appropriate levels of warmth

and affection (Soysa & Weiss, 2014). Lastly, Baumrind's third parenting style is permissive. This style is defined by low demandingness and high responsiveness. Typically, these parents show warmth and affection to their children, but do not set goals or high expectations. (Moghaddam, Assareh, Heidaripoor, Rad, & Pishjoo, 2013; Soysa & Weiss, 2014).

Research shows that varying degrees of demandingness and responsiveness influence several child outcomes including anxiety. Anxiety is the excessive fear or worry about certain events, circumstances, or scenarios and symptoms may manifest themselves both mentally and physically (Muris, Merckelbach, Schmidt, & Mayer, 1998). Particularly, autonomy granting behaviors, and lack there of, appear to relate to anxiety and have significant implications. Autonomy support can be defined as the degree to which an environment allows an individual to feel that they initiate their actions, rather than being coerced into them (Ratelle, Simard, & Guay, 2012). In relation to this study, high autonomy-granting parents are defined as having low levels of demandingness. In contrast, parents who are overly involved in their children's lives, often coined helicopter parents, exhibit low levels of autonomy granting traits, and therefore high levels of control or demandingness. Additionally, parents who intrude in their children's private lives or decision-making also grant little autonomy. Thus, parents with low autonomy granting levels are believed to make their child feel as though they are not independently engaging with their environment, nor actively making impacting decisions for themselves.

Research demonstrates relationships between low autonomy granting and anxiety. For example, intrusiveness, over-involvement, and high demandingness from parents were correlated with lack of self-confidence and lack of coping mechanisms, which contributed to anxiety in novel events (Cooper-Vince et al., 2014). Additionally, intrusive parent behaviors, such as accomplishing tasks for children that could be completed independently, had a positive correlation with anxiety in adolescents (Jongerden & Bogels, 2014). In a 2014 study, anxious adolescents reported low maternal autonomy support during childhood (Asselmann, Wittchen, Lieb, & Beesdo-Baum).

Beyond anxiety, it is important to note that there have been several positive outcomes linked with high demandingness and other life domains such as better personal well being (Phillips, Wilmoth, Wall, Peterson, Buckley, & Phillips, 2013), good dietary and physical activity habits (Small, Morgan, Bailey-Davis, & Maggs, 2013), and strong support systems during the transition to college (Fingerman, Cheng, Wesselmann, Zarit, Furstenberg, & Birditt, 2012). These outcomes may be linked to reduced anxiety in children. On the other hand, many negative effects such as fear of intimacy (Phillips et al., 2013), dependency, and low levels of self-efficacy and initiative (Fingerman et al., 2012) have also been reported.

In contrast, research indicated that high autonomy granting, or lack of demandingness before the age of 10, caused more anxiety in children in some cases due to lack of guidance and direction (Cooper-Vince et al., 2014). Similarly, permissive parent behaviors were associated with internalizing problems by the

age of four (Zarra-Nezhad, Kiuru, Zarra-Nezhad, Ahonen, & Poikkeus, 2014).

Gender of the child has also demonstrated a relationship with anxiety in children. Sons and daughters responded differently to novel tasks in specific contexts. For example, daughters appeared more anxious in social situations compared to boys (Moller, Majdandzic, Vriends, & Bogels, 2013). This may because stressful social situations are more familiar to females and therefore the success during these tasks are perceived as more important. Additionally, daughters were more susceptible to their parents' anxiety than sons indicating that anxiety may be influenced by gender roles (Graham & Weems, 2014).

It is also possible that specific aspects of parenting styles are more ideal in different socioeconomic groups. For example, children from low-income families are typically exposed to more stressful events compared to their counterparts (Cooper-Vince et al., 2014). Research found that high levels of demandingness from low income parents, and specifically fathers, actually reduced anxiety in terms of avoiding witnessing stressful events (Cooper-Vince et al., 2014). Another study found that high parental control was a predictor of high child sensitivity and that warm and emotionally supporting, or responsive parenting styles often decreased anxiety sensitivity because children were able to experience stressful events without fear or perception of a stressed, higher income parent (Graham & Weems, 2014).

Additionally, studies demonstrate that the impacts of parent behaviors vary between mothers and fathers in novel environments. For example, children with high anxious symptoms were more responsive to their father's social cues

compared to children with typical anxiety who were more influenced by their mother's social cues, although this was not consistent with other studies (Moller et al., 2014). Similarly, playful challenging by fathers on novel tasks decreased anxiety in children while the same type of challenging increased anxiety when displayed by mothers (Cooper-Vince et al., 2014). Fathers with challenging parenting behaviors, such as encouraging their child to keep attempting a difficult task, decreased social behavior inhibition, which ultimately buffered anxiety. Additionally, Asselmann, Wittchen, Lieb, and Beesdo-Baum (2014) found that mothers of anxious children were less warm during conversational tasks and more intrusive and controlling during cognitive tasks.

Certainly, Baumrind's (1991) parenting styles have been applied in many environmental contexts. However, it is possible that their effects are only relevant in certain cultural and social contexts. Generally, authoritative parenting tends to lead to the most positive child outcomes including appropriate emotional adjustment, high academic achievement, and lack of risky behaviors (Sorkhabi & Mandara, 2013). However, the majority of these results have been obtained using middle-class, European-American samples (Graham & Weems, 2014; Moller et al., 2013; Soysa & Weiss, 2014). The current research will view demandingness and responsiveness as individual parenting constructs and provide insight as to their use in minority populations such as Black and Hispanic parents, as well as among low-income single parents.

The current research explored differences in child anxiety pertaining to aspects of parenting styles. The key research question focused on how child

anxiety is related to demandingness of parenting, as well as how anxiety is influenced by responsiveness in parents. A second research question explored differences between gender of parents in terms of the impact of demandingness and responsiveness as well as their relationships with child anxiety. Lastly, differences in aspects of parenting styles, as well as anxiety, were explored in terms of other parental demographics and child characteristics. It was expected that high levels of demandingness, or control would correlate with high levels of child anxiety.

Data and Sample

Procedure

The current analyses used the data set from the Fragile Families and Child Wellbeing Longitudinal Study (McLanahan, Brooks-Gunn, Carlson, Currie, DeKlyen, Edin et al., 2010). The study follows children born between 1998 and 2000 and originally included nearly 5,000 families. Parents were assessed at the time of their child's birth, and at child ages 1, 3 and 5. Additionally, a nine-year follow-up data set pertaining to child outcomes is available. The Fragile Families study was initially designed to assess the function of unmarried individuals as parents, observe the relationship between co-parents and children, determine the outcomes of children from unmarried parents, and explore how policies and environmental conditions affect these families (McLanahan et al., 2014). Initial interviews with mothers were conducted in the hospital shortly after children were born. If fathers were not present during this time, interviews were

conducted over the phone. Information regarding children's emotional and cognitive development was obtained through in-home assessments when the children were three and five years old, along with nine-year follow-ups with parent, child, care provider, and teacher reports.

The original Fragile Families' primary investigator team consisted of 25 research associates from Princeton University and Columbia University. All primary investigators participated in conducting interviews and assessing families in the home. The study and data collection methods were approved by The Institutional Review Board (IRB) of Princeton University. All participants provided informed consent and had the option to refuse to answer any questions, or leave the study at any point in time.

Because of the Fragile Families' unique focus on individual, unmarried parents, results speak to the current research questions and allow interpretation of child outcomes while comparing mothers and fathers. Data on parenting were originally obtained via in-person interviews beginning in 1998, and continuing through the nine-year follow up. The current analyses used interview responses regarding parenting attitudes and beliefs, parent reports of child anxiety, and the majority of demographic variables from the nine-year wave. Additionally, demographic information including child gender, and parental age, and race was obtained from baseline interviews.

Sample

The Fragile Families sample consists of 4,898 families from 20 large cities in the United States. The majority of families was from unmarried households, and represented lower socio-economic backgrounds. Seventy-nine percent of the sample identified as either Black or Hispanic and 21% of participants identified as White or Other. Twenty-five percent of the sample, which served as the control group for the original purpose of the study, consisted of 1100 married couples. Quota sampling methods were used in order to find representatives of both married and unmarried parents in each city. The current study included both unmarried and married parents.

The sample size of the current study was significantly smaller than the original sample (n=4898 for both mothers and fathers) due to missing data. Only mothers and fathers with demandingness, responsiveness, and child anxiety scores were included in analyses. First, child anxiety data yielded over 3,000 mother participants and nearly 2,000 father participants in the current sample. Unfortunately, there was a great deal of missing demandingness data from mothers. This brought the sample size down to only 78 mothers. Fathers, however, provided much more data and made it possible to include 1,975 in the male sample. Additionally, demographic variables for the current sample were compared with the original study sample in order to determine whether or not the sample was biased in any way.

Initial analyses compared the current study sample to the original Fragile Families sample to test for bias. Although the current father sample (M =28.15,

SD = 7.11) was slightly older than the original sample, (*M* = 27.73, *SD* = 7.20), age did not differ significantly between the two ($p > .05$). According to a Pearson Chi-Square, fathers did differ significantly from the original sample in regard to race, education, and income ($p = .000$). Specifically, 70% of fathers from the original sample identified as Black or Other compared to the 58% from the current sample ($p = .000$) . Additionally, more fathers from the original sample reported receiving Some High School Education or Less (33%) compared to 26% in the current sample ($p = .000$).

Lastly, more fathers from the original sample reported low income (19%), and less reported high income (13%) than the sample used for the current study (20% and 23%) ($p = .000$). In regard to child sex, there was not a significant difference of number of boys and girls in either sample ($p > .05$).

Mothers from the original sample (*M* = 25.31, *SD* = 6.05) were significantly older than the current sample (*M* = 23.39, *SD* = 4.84) ($p = .003$). The two mother samples did not differ significantly in regard to race, education, income level, or child sex ($p > .05$).

The final sample consisted of 78 mothers (*M* = 23.38, *SD* = 4.84) who were slightly younger than the 1,975 fathers (*M* = 28.15, *SD* = 7.11). The majority of mothers, almost half of the sample, identified as Black, followed by mothers who identified as White, and next as Other. Similarly, the majority of fathers identified as Black, followed by White and Other. All demographic information from the current sample, as well as the original sample can be found in Table 1.

Table 1.
Demographics

Demographic Variable	**Current Sample**		**Original Sample**	
	Mother (n=78)	**Father (n=1975)**	**Mother (n=4898)**	**Father (n=4898)**
Parent Age	*M*=23.38 *SD*=4.84	*M*=28.15 *SD*=7.11	*M*=25.31 *SD*=6.05	*M*=27.92 *SD*=7.16
Child Sex	**% (n)**	**% (n)**	**% (n)**	**% (n)**
Boy	56.4 (44)	51.4 (1016)	52.4 (2568)	5.42 (2568)
Girl	43.6 (34)	48.6 (959)	47.6 (2329)	47.6 (2329)
Race				
White	34.6 (27)	29.1 (574)	30.2 (1480)	22.8 (1117)
Black	53.8 (42)	42.7 (843)	48.8 (2389)	38.2 (1870)
Other	11.6 (9)	15.4 (304)	19.2 (938)	15.7 (768)
Missing	0 (0)	12.9 (254)	1.9 (91)	23.3 (1143)
Education				
Some HS or Less	41.0 (32)	25.5 (504)	34.7 (1699)	26.1 (1280)
HS Diploma/GED	34.6 (27)	29.4 (580)	30.2 (1480)	25.3 (1239)
Some College or More	24.4 (19)	33.9 (670)	35.0 (1713)	26.6 (1303)
Missing	.0 (0)	11.2 (221)	.01 (6)	22.0 (1076)

Income				
Low Income	43.6 (34)	19.7 (390)	35.4 (1735)	19.2 (561)
Middle Income	20.5 (16)	29.7 (587)	25.1 (1229)	20.1 (604)
High Income	7.7 (6)	22.7 (449)	15.4 (752)	12.6 (368)
Missing	28.2 (22)	27.8 (549)	24.1 (1182)	47.6 (1390)

Measures

Dependent Variables

Child anxiety. Child anxiety served as the dependent variable in the current study. Child anxiety data were based on parent report items retrieved from the nine-year follow up survey. Reports were given from the children's primary care givers, which included either mothers or fathers. Items were chosen based on pre-existing child anxiety scales that were similar to items on the Screen for Child Anxiety Related Disorders Child Version (SCARED; Birmaher, Khetarpal, Cully, Brent & McKenzie, 1995) as well as diagnostic criteria from the Diagnostic and Statistical Manual for Psychological Disorders (DSM-5; American Psychological Association, 2014). Scores from both scales have been determined valid and reliable in clinical settings (Nauta, Scholing, Rapee, Abbott, Spence, & Waters, 2004). Thirteen items, such as "My child is nervous, high strung, or tense," were selected to create the child anxiety scale used in the current study. Responses were measured on a three-point Likert

scale with 1 meaning "Not True" and 3 meaning "Very True." The new instrument yielded a Cronbach's alpha level of .78 and can be found on Appendix A. Descriptive statistics for child anxiety scores in the sample can be found in Table 2.

Independent Variables

Father Demandingness. Parental demandingness served as one independent variable. In order to create the demandingness measure, responses about parenting methods and attitudes from the nine-year wave were selected according to Baumrind's Parenting Theory (Baumrind, 1991). Selection of items pertaining to demandingness was based on the Parenting Styles and Dimensions Questionnaire (PSDQ; Robinson, Mandleco, Olsen, & Hart, 2001). The PSDQ is based on Baumrind's Parenting Style Theory and its scores have been determined reliable and valid for parents of preschool aged children (Topham, Hubbs-Tait, Rutledge, Page, Kennedy, & Shriver et al., 2011). Nine items pertaining to demandingness, such as "I put my child in timeout, or sent my child to his or her room," were selected to create a new scale with items from the Fragile Families data set. The response categories are measured on an 8-point Likert scale with 0 meaning "Never" and 7 meaning "More than 20 times." The scores of the new demandingness instrument were tested for reliability in order to determine whether or not items were appropriately used to measure the intended constructs. The scale yielded a Cronbach's alpha level of .71 and can be found in Appendix B.

Mother Demandingness. Frequencies for demandingness items were run for both mothers and fathers. While this yielded a large sample for fathers, only items 1, 2, and 9 ("Explained to children why something he/she did was wrong", "Put child in timeout, or sent he/she to his/her room", "Took away privileges from him or her") yielded a sample of mothers large enough (n = 78) to use for analyses. Unfortunately, mothers skipped questions regarding punishment, and therefore data from approximately 80 mothers exists for these three items only. Scores on these three items were tested for reliability and yielded a Cronbach's alpha level of .67. Because the sample of fathers was large enough (n = 1975), the study continued using all items from the originally constructed demandingness scale for fathers. It was deemed appropriate to use two different demandingness scales for mothers and fathers because the father scale more closely aligned with the PSDQ criteria. Additionally, all analyses pertaining to father demandingness were conducted using the 3-item Mother scale. Results did not significantly differ from results found using the original scale ($p > .05$). The Mother Demandingness Scale can be found in Appendix C. Descriptive Statistics for both Mother and Father Demandingness can be found in Table 2.

Responsiveness. Responsiveness was measured by combining two individual items constructed via child responses from the Fragile Families interview. Interviews took place when children were nine years old. Additionally, these items were used to create a 2-item responsiveness scale. Items pertain to parental closeness and were modeled after items from the

PSDQ. These items include “My Mom/Dad talks over important issues with me,” and “My Mom/Dad listens to my side of an argument,” and both consist of a three-point Likert scale with 1 meaning “Never” and 3 meaning “Always.” The created scale for responsiveness can be found in Appendix D. Descriptive Statistics for Responsiveness from the current sample can be found in Table 2.

Table 2. Descriptives for created scales for Mothers (n=78) and Fathers (n=1975)

	Mothers				Fathers			
Scales	Min	Max	*M*	*SD*	Min	Max	*M*	*SD*
Child Anxiety	13	39	15.99	3.58	13	39	15.65	2.73
Demandingness	4	19	12.22	4.21	0	53	17.85	10.62
Responsiveness	0	6	3.48	1.69	0	6	3.40	1.85

Demographic Variables

Descriptive statistics such as child gender, and parental age, race, education level, and income were obtained from the Fragile Families nine-year wave sample. Children were categorized as either male or female for the purpose of the current study. Parental age in years was recorded during the 9-year wave interviews. The original Fragile Families study included Black, White, Asian, Hispanic, American Indian and Other as potential racial identifications. The current study categorized race using Black, White, and Other. Asian, Hispanic, and American Indian participants were underrepresented in the current sample. Thus, these races were collapsed into the Other race category. Demographic data

pertaining to race can be found in Table 1. Education level was originally collected from participants using a categorical construct consisting of nine levels. The current analyses combined levels and ultimately categorized participants into one of three education levels including, “Some High school or Less,” “HS Diploma/GED” and “Some College or More.” Education demographics for mothers and fathers can be found in Table 1. Lastly, income was recorded from each participant. Once again, the current analysis collapsed several levels of the original income variable and placed mothers and fathers into one of three categories. For the purpose of this study, these categories will be referred to as Low Income: Less than $5,000- $19,999 per year, Medium Income: $20,000- $49,999 per year, and High Income: $50,000- Over $75,000 per year. Income demographics for mothers and fathers can be found in Table 1.

Data Analysis

Before analyses were conducted, data were checked for completeness and normality. Additionally, the created scales for demandingness, responsiveness, and anxiety were checked for internal reliability. Analyses of variance (ANOVAs), Pearson correlations, and chi-square analyses were conducted separately for both mothers and fathers to test for demographic differences in demandingness, responsiveness, and child anxiety. Next, ANOVAS were conducted in order to determine the relationship between demandingness and child anxiety, as well as responsiveness and child anxiety for both mothers and fathers. Lastly, two linear regressions were conducted in order to determine

the strengths of the significant relationships between predictor variables and child anxiety for mothers and for fathers, controlling for demographic variables.

Results - Preliminary

Father Demandingness. First, ANOVAs were conducted to test for differences in demandingness in fathers across racial groups. Results indicated significant differences [$F(2, 1718) = 9.7$, $p = .000$]. Specifically, Whites were significantly more demanding than Blacks ($p = .02$) and Others ($p = .00$) and Blacks were significantly more demanding than Others ($p = .038$). An ANOVA showed significant differences between demandingness and income groups [$F(3, 1971) = 10.12$, $p = .000$]. Specifically, the Low Income group was less demanding than the High Income group ($p = .004$). Demandingness also differed by education levels [$F(3, 1971) = 9.94$, $p = .000$]. Specifically, the Some High School or Less group was significantly less demanding than the High School Diploma/GED group ($p = .000$), and the Some College or More group ($p = .000$). Independent samples t-tests indicated that fathers of girls ($M = 19.32$, $SD = 10.82$) have a higher demandingness score than fathers of boys ($M = 16.30$, $SD = 2.51$; $t(959) = 6.38$, $p = .014$]. A Pearson correlation indicated that paternal age was negatively related to demandingness indicating that as paternal age increased, demandingness decreased ($r = -.07$, $p = .00$).

Father Responsiveness. ANOVAS were conducted in order to test relationships between demographic variables and paternal responsiveness. A significant relationship was found between responsiveness and income [$F(3,$

1814) = 3.07, p = .027), although post-hoc tests did not indicate a specific group difference. Secondly, the relationship between paternal responsiveness and education was significant [F(3, 1814) = 2.81, p = .038). Specifically, the High School Diploma/GED group was less responsive than the Some College or More group (p= .013). Lastly, results also showed a significant relationship between race and responsiveness [F(2, 1583) = 3.13, p = .044), with whites reporting more responsiveness than Blacks (p = .034). Results showed no significant differences by child gender (p = >.05).

A Pearson correlation indicated that paternal age was not related to responsiveness (r = .04, p = .15).

Child Anxiety in the Father Sample. Finally, ANOVAS were conducted to determine relationships between father demographics and child anxiety. Results indicated significant differences pertaining to race [F(2, 1718) = 11.92, p = .000]. Specifically, Blacks were less anxious than Whites (p =.000) and Others (p = .000). No significant relationships were found between child anxiety and income level, or child anxiety and education level. A Pearson correlation showed no significant relationship between paternal age and child anxiety (r = .01, p = .70).

An independent samples t-test was conducted to determine whether or not child anxiety differed by child gender for children in the father only sample. Results showed that girls (M = 15.67, SD = 2.51) had significantly higher anxiety scores when compared to boys, (M = 15.62, SD = 2.92), [t(959) = 1.28, p = .04].

Mother Demandingness. ANOVAS indicated that maternal demandingness did not vary by race, income, or education level. Additionally, Pearson correlations showed demandingness did not vary by maternal age (r = -.08, p = .48) Lastly, an independent samples t-test showed there were no significant differences in mother demandingness between gender of child (p = >.05).

Mother Responsiveness. ANOVAS and t-tests did not reveal any significant relationships between maternal responsiveness and race, responsiveness and income level, and responsiveness and child gender (p >.05). However, the Post-hoc test showed a significant difference by education level, specifically it showed that the Some High School or Less group was less responsive than the Some College or More group (p = .037). Additionally, Pearson correlations showed responsiveness did not vary by maternal age (r = .05, p =.66).

Child Anxiety in the Mother Only Sample. ANOVAS were conducted to determine relationships between maternal race, income level, or education level, and child anxiety. Results were not significant. A Pearson correlation showed no significant relationship between age and child anxiety (r = -.02, p = .89). An independent samples t-test was conducted to determine whether or not child anxiety differed by child gender. Results were not significant (p >.05).

Results – Main Analyses

For fathers, a Pearson correlation showed a negative significant relationship between responsiveness and child anxiety (r = -.06), indicating that

more responsive fathers report less anxious children ($p < .01$). In regard to demandingness and anxiety, no significant results were found ($r = .01$, $p = .54$). For mothers, no significant relationships between demandingness and child anxiety ($r = .16$, $p = .15$), or responsiveness and child anxiety were found ($r = .09$, $p = .47$).

Multiple linear regressions predicting child anxiety were conducted for both mothers and fathers using a two-step process including demographics, and demandingness and responsiveness. First, demographic variables were tested for co linearity using Spearman's nonparametric correlation. Results were not significant ($p < .8$). For fathers, the regression equation with demographics was significant, adjusted $R^2 = .011$, $F(11, 1608) = 2.68$, $p = .002$. Specifically, results indicated that being black served as a significant predictor for child anxiety ($p = .000$). Additionally, low income level just reached significance at the $p = .05$ level. Lastly, results indicated a negative relationship between anxiety and age. The regression equation with responsiveness and demandingness added was also significant Adjusted $R^2 = .014$, $F(13, 1606) = 2.83$, $p = .022$. Specifically, responsiveness served as a significant predictor for anxiety after controlling for demographic variables. The change in R square was not significant when responsiveness and demandingness were included in the regression equation (Table 3).

For mothers, a multiple linear regression did not indicate any significant predictors for child anxiety (Table 4).

Table 3.
Hierarchical multiple regression with significant correlates of child anxiety for fathers (n=1975)

	Step 1	Step 2
Variables	b(*SE*)	b(*SE*)
Child Male	-.003 (1.36)	-.035 (.137)
Race (vs. White)		
Black	-.734 (1.64)**	-.736 (1.64)**
Other	-.146 (.240)	-.149 (.240)
Income (vs. High Income)		
Low Income	.417 (.225)	.419 (.225)*
Middle Income	.294 (.189)	.288 (.189)
Missing Income	.286 (.234)	.291 (.235)
Education (vs. Some College or More)		
Some High School or Less	.215 (.194)	.235 (.194)
Dipolma/GED	.252 (.175)	.235 (.175)
Father Age	.008 (.010)	.010 (.010)
Demandingness		.009 (.007)
Responsiveness		-.086 (.037)*
R^2 change	.018**	.004
(*df*)	1607	1605
Model *F*	2.47*	264.*

*p<.05, **p<.01

Table 4.
Hierarchical multiple regression with significant correlates of child anxiety for mothers (n=78)

	Step 1	Step 2
Variables	b(*SE*)	b(*SE*)
Child Male	-.797 (1.04)	-1.11. (1.07)
Race (vs. White)		
Black	.045 (1.08)	.103 (1.08)
Other	.347 (1.82)	1.09 (1.88)
Income (vs. High Income)		
Low Income	-.957 (1.99)	-1.30 (2.02)
Middle Income	-.066 (2.09)	-.255 (2.11)
Missing Income	.566 (2.11)	,094 (2.14)
Education (vs. Some College or More)		
Some High School or Less	-.785 (1.42)	-.670 (1.42)
Dipolma/GED	-1.50 (1.35)	-1.24 (1.44)
Mother Age	-.001 (.105)	.005 (.105)
Demandingness		.141 (.123)
Responsiveness		.251 (.291)
R^2 change	.090	.038
(*df*)	58	56
Model *F*	.574	.684

*p<.05, **p<.0

Conclusion

Discussion

The current analyses examine the relationships between demandingness, responsiveness, and child anxiety. Although literature suggests that parenting styles, specifically levels of demandingness and responsiveness, contribute to anxiety in children (Ratelle, Simard, & Guay, 2012; Cooper-Vince et al., 2014; Jongerden & Bogels, 2014), the results of the current study did not support this in regard to mothers. For fathers, a significant, negative relationship was found, indicating that as responsiveness increased, child anxiety decreased. This was the only significant relationship found in terms of parenting constructs and anxiety.

The current study speaks to the influence paternal parenting has on children, and specifically to differences in responsiveness that may lead to higher anxiety in girls. Lenna and Louis (2015) suggest the importance of a father's role with his children, even when children live with a single mother or mother with a new male partner. Additionally, Braza, Carreras, Munoz, Braza, Azurmendi, Pascual-Sagastizabal et al. (2015) supports this concept and found that authoritarian parenting styles from fathers were associated with internalizing problems in boys, and physical aggression in girls.

Results indicated differences between mothers and fathers in regard to the two aspects of parenting styles. For fathers, differences were found in both demandingness and responsiveness between racial groups, income levels, and education levels. Secondly, a negative relationship was found between paternal

age and demandingness. Over all, fathers of girls were found to be more demanding than fathers of boys.

Lastly, in the father sample, Blacks were found to be more anxious than Whites and Others, and girls were found to be more anxious than boys. This supports a 2013 study that found girls to be more anxious than their counterparts in novel, social situations (Moller et al.). Additionally, results also showed interesting differences pertaining to anxiety. For example, anxiety was significantly related to paternal race and paternal age. Specifically, results determined a negative relationship between anxiety and age indicating that children of older fathers are less anxious. Secondly, a negative relationship between responsiveness and anxiety was found, indicating that more responsive fathers had less anxious children. These results were similar to results found by Paloma et al. (2015), who found that permissive fathers reported less anxiety in their children. Surprisingly, paternal demandingness was not related to child anxiety.

For mothers, only one significant relationship was found, specifically, between responsiveness and education levels. There were not any relationships found between maternal demandingness, responsiveness, or anxiety. This differs from the majority of research, which indicates the strong influence of maternal parenting (Cooper-Vince et al., 2014). Additionally, the current results are unique in that they shed light on education level related to responsiveness.

Limitations

Throughout the study, several limitations were encountered. The first was that the scales used for analyses were created for the purpose of this research. Although were based off of valid, pre-existing questions from the original survey, they had not been used for any previous study apart from the Fragile Families data.

Secondly, one original goal of the research was to explore differences in parenting styles between mothers and fathers. Unfortunately, the majority of mothers skipped questions regarding punishment in the nine-year wave, and data retrieved from several of the demandingness items could not be used for the mothers. Thus, the scales used to measure maternal and paternal demandingness were different. This prevented a true comparison regarding differences between mothers and fathers. While this obstacle inhibited the original research questions, it did give insight as to differences between mothers and fathers in terms of their response rates, particularly in regard to punishment. This suggests that fathers might be more comfortable discussing disciplining their children, and therefore the relationship between father demandingness and child anxiety can be better examined. Thus, results regarding the relationship between father demandingness and anxiety are likely more accurate than the results regarding mother demandingness.

Additionally, parents reported demandingness and child anxiety. Responsiveness, on the other hand, was reported by children. It is possible that

children and parents perceive responsiveness in different ways, resulting in a difference of interpretation in regard to this parenting trait.

Because of the small sample sizes compared to the original study, the results from the multiple linear regressions cannot be applied to individuals outside of the current sample.

Lastly, the scale used for responsiveness only consisted of two items. Although items were analyzed individually, it is possible that the scale did not accurately measure all variables associated with this specific aspect of parenting and thus, its relationship with anxiety in children.

Conclusion and Implications

Although the hypothesis that parents with higher demandingness would report higher anxiety among their children was not supported, the current results shed light on several differences in parenting styles by demographic variables, specifically in fathers. The implications for these results are important, as there is a lack of literature on fathers, especially from lower income areas. Future studies should focus on these differences, and why they may occur. Additionally, this study found a surprising lack of responses from mothers regarding punishment. In such a large sample, it is interesting that there were not data regarding demanding mother characteristics compared to fathers. Future research should explore why these differences between mothers and fathers exist.

Lastly, results indicated that responsiveness was a more influential parenting construct than demandingness, ultimately contributing to child

anxiety. However, results can be explored further in regard to the direction of this relationship. For example, it is possible that children with anxiety elicit more responsive characteristics from their parents, or that responsive parents posses other parenting characteristics that contribute to child anxiety. It is also possible that anxious children are influenced by their anxious parents, regardless of parenting characteristics. Although the current study did not look at parental anxiety, research suggests that anxious parents feel anxious for their children, and therefore construct a working model that promotes anxiety in other family members (Barrett, Rapee Dadds, & Ryan, 1996). Future research should focus on the direction of these relationships, as well as explore themes of responsive parenting in order to better understand how to recognize and therefore prevent anxiety in children.

Appendix A

Child Anxiety Measure

My Child…

	Not True	Somewhat or Sometimes True	Very True	Similar SCARED items
Has nightmares	1	2	3	20. I have nightmares about something bad happening
Is too fearful or anxious	1	2	3	7. I am nervous
Clings to adults or is too dependent	1	2	3	8. I don't like to be away from my family 29. I follow my mother or father wherever they go
Feels dizzy or lightheaded	1	2	3	6. When I get frightened, I feel like passing out
Is shy or timid	1	2	3	41. I am shy
Fear certain animals, situations, or places, other than school	1	2	3	40. I feel nervous when I am going to parties, dances, or any place where there will be people that I don't know
Has trouble sleeping	1	2	3	13. I worry about sleeping well
Fears going to school	1	2	3	36. I am scared to go to school 17. I worry about going to school
Feels he or she has to be perfect	1	2	3	35. I worry about how well I do things
Feels or complains that no one loves him or her	1	2	3	5. I worry about other people liking me
Hears sounds or voices that are not there	1	2	3	12. When I get frightened, I feel like I am going crazy 15. When I get frightened, I feel like things are not real
Is nervous, high strung, or tense	1	2	3	Restlessness or feeling keyed up or on edge (American Psychiatric Association, 2013)
Worries	1	2	3	Items, 5,13, 17, & 35 (Mentioned above)

Appendix B

Parenting Styles Demandingess Measure (Fathers)

How often have you…

	Never	Yes, but not in past year	Once	Twice	3-5 Times	6-10 Times	11-20 Times	More than 20 Times	Similar PSDQ Items
Explained to CHILD why something he or she did was wrong	0	1	2	3	4	5	6	7	40. I talk it over and reason with our child when the child misbehaves 55. I explain consequences of the child's behavior
Put CHILD in "time out" or sent CHILD to his or her room	0	1	2	3	4	5	6	7	27. I punish by putting our child off somewhere alone with little if any explanations
Shook CHILD	0	1	2	3	4	5	6	7	18. I grab our child when being disobedient
Hit him or her on the bottom with something like a belt, hairbrush, a stick, or some other hard object	0	1	2	3	4	5	6	7	31. I explode in anger toward our child

Shouted, yelled, or screamed at CHILD	0	1	2	3	4	5	6	7	12. I yell or shout when our child misbehaves
Spanked him or her on the bottom with your bare hand	0	1	2	3	4	5	6	7	31. I explode in anger toward our child
Swore or cursed at him or her	0	1	2	3	4	5	6	7	31. I explode in anger toward our child
Threatened to spank or hit him or her but did not actually do it	0	1	2	3	4	5	6	7	19. I state punishments to our child but do not actually do them 33. I threaten our child with punishments more often than actually giving it
Took away privileges from him or her	0	1	2	3	4	5	6	7	9. I punish by taking privileges away from child with little if any explanation

Appendix C

Parenting Styles Demandingess Measure (Mothers)

How often have you…

	Never	Yes, but not in past year	Once	Twice	3-5 Times	6-10 Times	11-20 Times	More than 20 Times	Similar PSDQ Items
Explained to CHILD why something he or she did was wrong	0	1	2	3	4	5	6	7	40. I talk it over and reason with our child when the child misbehaves 55. I explain consequences of the child's behavior
Put CHILD in "time out" or sent CHILD to his or her room	0	1	2	3	4	5	6	7	27. I punish by putting our child off somewhere alone with little if any explanations
Took away privileges from him or her	0	1	2	3	4	5	6	7	9. I punish by taking privileges away from child with little if any explanation

Appendix D

Parenting Styles Responsiveness Measure

Your [Mom] or [Dad]…

	Never	Sometimes/ Not very often	Often	Always	Similar PSDQ Items
Talk over important issues with you	0	1	2	3	21. I allow our child to give input into family rules
Listen to your side of an argument	0	1	2	3	30. I take our child's desires into account before asking the child to do something 45. I encourage our child to freely express him/herself even when disagreeing with parents

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