2016

Control, Care, and Stress: Parenting's Effect on Child Internalizing Symptoms

Maysa Kaskas
Louisiana State University and Agricultural and Mechanical College

CONTROL, CARE, AND STRESS: PARENTING'S EFFECT ON CHILD INTERNALIZING SYMPTOMS

A Thesis

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Masters of Arts

in

The Department of Psychology

by
Maysa M. Kaskas
B.A., Vanderbilt University, 2014
December 2016

Table of Contents

List of Abbreviations

CDI: Children's Depression Inventory

MASC: Multidimensional Anxiety Scale for Children

PBI: Parental Bonding Instrument

PBI-AMC: Parental Bonding Instrument-About My Child

PSI/SF: Parenting Stress Index/Short Form

Abstract

Theoretical models of childhood psychopathology suggest that the parent-child relationship serves an influential role in the development and maintenance of internalizing disorders such as anxiety and depression. However, there is a great deal of inconsistency in the research literature on the predictive power of parenting variables such as parental control and parental care. Furthermore, these parenting variables are often poorly defined and inconsistently operationalized across studies, hampering interpretation of results and limiting conclusions on the strength of the effect. Additionally, few studies have examined the role of parenting with careful attention to moderators. In order to investigate these problems, 189 mother-child dyads (children between the ages of 8 and 16) from an existing database were analyzed. The relationships between maternal care, maternal control, child anxiety, and child depression were examined with maternal stress, child age, child gender, and child ethnicity as moderators. In summary, child age emerged as a nonspecific predictor of child anxiety (β=-.218, t(187)= -3.054, p=.003) and a significant moderator of the relationship between child anxiety and maternal care (ΔR^2 = .045, F(3, 185) = 6.627, p <.001); less maternal care was associated with higher anxiety for younger children. Additionally, child gender trended significance as a nonspecific predictor of child anxiety (β=.140, t(187)= 1.930, p=.054) and of child depression (β=.140, t(187)= 1.940, p=.054), with females exhibiting higher anxiety and depression than males. This research may inform future evidence-based assessments and treatments through identification of potential pathways to child psychopathology.

Introduction

The parent-child relationship, one of the most influential bonds in a child's life, has long been the focus of research and the target of clinical intervention. Key aspects of the parent-child relationship include the degree of control (e.g., parental expectations on a child to think, feel, or behave in desired ways; van der Bruggen, Stams, & Bögels, 2008) and the amount of care (e.g., warmth and support) provided to a child. This relationship is typically functional, as parents seek a balance between encouraging their child's independence and providing support. However, a growing body of literature has recognized the potential role of the parent-child relationship in the development and maintenance of maladaptive symptomology.

Parental Control as a Mechanism of Anxiety Transmission

Parenting may influence children's maladaptive symptomology through a number of mechanisms; the field of behavioral genetics provides a framework by which these complex connections can be understood. Studies on the etiology of internalizing disorders suggest that approximately 30% of variance in anxiety and 40% of variance in depression can be explained by genetic factors (Schrock & Woodruff-Borden, 2010; Sullivan, Neale, & Kendler, 2000). While a genetic predisposition to traits such as anxiety and depression may be inherited directly by the child, this pathway alone does not explain the complex relationship between child and parent psychopathology. The child's genetically influenced or inherited predisposition may help shape his environment over time, as his behavior elicits certain responses and behaviors from significant individuals (e.g., teachers, caregivers or parents) in his environment. Further, the child's behavior may evoke corresponding or contrasting behavior in his parent; for example, a child with an anxious temperament may behave in submissive ways, evoking control in a parent who seeks to compensate for his indecision and avoidance. This pattern, known as evocative gene-environment correlation, has some empirical support; maternal control was found to be

significantly influenced by child behaviors (e.g., submissiveness, indecision) in a recent observational study (Klahr, Thomas, Hopwood, Klump, & Burt, 2013). Additionally, Rapee (2001) suggests that parents may grow accustomed to making decisions for their anxious children, eventually exerting control in anticipation of their anxious child's distress.

While these parental behaviors prevent the child from experiencing anxiety-related distress, they also serve to exacerbate and maintain the child's anxiety. Parental control may increase the child's perception of threat; for example, children may observe their parent taking over for them in situations and conclude that the situation must be too dangerous or risky for them to navigate on their own (Rapee, 2001). Subsequently, high levels of parental control may reduce the child's perceived control over threat, decreasing the child's confidence and perceived competence. Additionally, parental overcontrol reduces the number of opportunities a child has to explore their environment and obtain and practice appropriate coping skills (van der Bruggen et al., 2008). While parents may wish to protect their children from anxiety-provoking or distressing situations, children require occasions to test hypotheses and coping strategies. After all, it is only through experience that a child learns what situations he can and cannot navigate independently. For example, a child with a predisposition to fear dogs may not have the opportunity to interact with dogs, understand what distinguishes a friendly dog from an unfriendly dog, and test out his own capacity to tolerate fear if the child's overcontrolling parent limits or abbreviates the child's interactions with dogs due to a desire to reduce the child's anxiety-related distress.

Not all parents exert control because they are influenced by their child's anxiety-related distress. In fact, parents may be overcontrolling simply because they themselves are anxious (McClure, Brennan, Hammen, & Le Brocque, 2001; Schrock & Woodruff-Borden, 2010; Wood,

McLeod, Sigman, Hwang, & Chu, 2003). The transmission of anxiety from parent to child in this scenario is a passive epiphenomenon; adoption cases excluded, a child's environment is typically determined by the people who are genetically similar to the child (e.g., biological parents). A parent who is inconsistent, inattentive, and/or anxious will raise their child in an inconsistent, inattentive, and/or anxious manner, and this parenting style affects the range of experiences a child will have. Elevated anxiety may impede the development of adaptive coping skills in parents, which may cause anxiety-enhancing behaviors such as modeling avoidance, rejection, and overcontrol (Ginsburg & Schlossberg, 2002). Additionally, anxious parents have a tendency to interpret ambiguous or novel situations as threatening for their children, perhaps leading to increased control as a means of ensuring avoidance of these situations (van der Bruggen et al., 2008).

There is a robust theoretical foundation for the linkages between child anxiety and parental control; however, a general paucity of empirical research on the subject limits advances and interpretations of the state of the science (Wood et al., 2003). A meta-analysis of seventeen studies examined the connection between child anxiety and parental control, finding a medium-to-large and significant effect size of $d = 0.58$ (CI $0.51 < d < 0.64$; van der Bruggen et al., 2008). These findings strongly suggest higher levels of child anxiety are associated with higher levels of parental control. Further research has indicated that parenting variables, such as parental control and parental care, may account for approximately 4% of the variance in child anxiety. There is a stronger association between child anxiety and parental control (operationalized as granting of autonomy and accounting for about 18% of variance) as compared to the link between child anxiety and parental rejection or lack of warmth (<1% of variance accounted for; McLeod, Weisz, & Wood, 2007a).

Need for an Examination of Moderators

Yet limited sample sizes, heterogeneity in study design, and inconsistent results across studies point to a need for further research with closer attention to potential moderators (i.e., variables that affect the direction and/or strength of the relation between an independent and a dependent variable). For example, van der Bruggen and colleagues (2008) found a smaller overall effect size in the relationship between child anxiety and parental control in families of lower socioeconomic status. The authors conclude that families from middle or higher socioeconomic backgrounds may be more adept at modifying their parenting styles in response to child feedback; however, these conclusions were drawn from a total of one study with a predominantly high socioeconomic status (SES) sample and three small studies with predominantly low SES participants. The possible moderating effect of ethnicity on the relationship between child anxiety and parental control has not been systematically evaluated. Additionally, the authors found that the child's age was a significant moderator, with larger effect sizes for samples with school-age children than those with infants or preschoolers. However, studies of parental control and child anxiety have yet to be extended into adolescent samples, a limitation of the literature. Finally, few studies extend beyond potential demographic moderators in examining the nuances of the parent-child relationship.

Role of Parental Stress

Inconsistencies in the literature suggest that parental anxiety alone may not explain the link between parental control and child anxiety. A recent meta-analysis failed to find a significant relationship between parent anxiety and parent control (d = 0.08, CI 0.01 < d < 0.16; van der Bruggen et al., 2008). This indicates that additional research with careful attention to moderators is necessary to disentangle the relations between parental anxiety, parental control,

and child anxiety. One must consider the possibility that anxious parents may be too stressed and preoccupied by their own worries and therefore more prone to inadequate parenting, including overcontrol (Woodruff-Borden, Morrow, Bourland, & Cambron, 2002). For example, a parent who is under a great deal of stress may be more likely to resort to overcontrolling behaviors more often and may be more inconsistent in parenting style, two factors which may increase child anxiety (Abidin, 1992). In one study, parenting stress was also shown to decrease parenting self-efficacy and increase parental internalizing symptoms (e.g., anxiety, depression; Rezendes & Scarpa, 2011).

Simultaneously, an anxious or depressed child may also significantly escalate parental stress levels, increasing the likelihood of inadequate parenting behaviors such as overcontrol. According to Costa, Weems, Pellerin, and Dalton (2006), there is a strong link between parenting stress and child psychopathology. This model was supported by a recent cross-cultural study examining mother-child dyads in Utah (Caucasian, Hispanic, and Native American families) and New Zealand (Caucasian and indigenous Maori descendent families); child internalizing symptoms across cultures were significantly associated with maternal parenting stress, as independently reported by mothers and children (Rodriguez, 2011).

Parenting stress is often measured with the Parenting Stress Index, which parses the concept into three components: parental distress (e.g., parenting stress resulting from parental internalizing symptoms such as anxiety or depression, feelings of inadequacy, lack of social support), parent-child dysfunctional interaction (e.g., parental dissatisfaction with their child based on experiences with their child), and difficult child (e.g., parental perceptions of their child's ability to self-regulate; Loyd & Abidin, 1985). High levels on the parent-child dysfunctional interaction scale may indicate that a parent considers their experiences with their

child to be discouraging or alienating. Although the difficult child scale is highly related to both externalizing and internalizing symptoms in the child, the parent-child dysfunctional interaction scale has established specificity to children's internalizing symptoms after parental psychopathology is controlled (Costa et al., 2006).

Parental Care as a Mechanism of Depression Transmission

There is strong theoretical support for the hypothesis that parenting is a major contributing factor in the development and maintenance of childhood depression. A parenting style characterized by low warmth, rare displays of affection, and infrequent contact with the child contributes to the development of childhood depression in a number of ways, including: damaging self-esteem, fostering helplessness, and supporting the development of negative schemas about the self, the world, and the future. Each of these factors is a major risk factor for depression (McLeod, Weisz, & Wood, 2007b). In particular, these negative schemas may mediate the child's response to stressful life events (e.g., peer rejection, parental discipline, academic or athletic disappointment), increasing the likelihood that the child becomes and remains depressed after a stressor.

What factors contribute to a parenting style low in warmth? This type of parenting style has been associated with both maternal and paternal depression, a significant factor to consider as the heritability of depression is approximately 40% (Lovejoy, Graczyk, O'Hare, & Neuman, 2000; Shay, 2010; Wilson & Durbin, 2010). One may assume that the epiphenomenon approach to parent-child internalizing symptomology transmission applies in part to depression, as well. Elevated parental distress (a component of parenting stress) can also lead to reduced parental warmth, responsiveness, and disappointment with the parenting role (Costa et al., 2006). Additionally, mother-reported stress has been shown to exacerbate a lack of warmth in mothers

with depression (Webster-Stratton & Hammond, 1988). Therefore, one should consider levels of parental stress when evaluating the relationship between parental care and childhood depression.

While there are many articles linking high levels of parental depression to low parental warmth, few studies evaluate the impact of low parental care on children's current symptomology. However, research on adults who were raised by parents with low warmth demonstrate a significant relationship between low parental care as children and higher levels of depression as adults (Grant et al., 2012; McGinn, Cukor, & Sanderson, 2005; Zemore & Rinholm, 1989). These reports linking parenting in childhood to symptoms of depression in adulthood may serve as a useful starting point to examining associations of childhood depression; however, one cannot extrapolate these findings to a younger population. Additionally, these retrospective reports should be interpreted with caution due to the likely influence of the adults' current depressive symptoms (e.g., negative schema may affect the tone and accuracy of the reporting) and possibility of retrospective memory bias (e.g., omission, conflating details, allowing more vivid or recent memories to color reports of past events).

A recent meta-analysis of the link between parenting behaviors and child depression found that parenting accounted for 8% of the variance in child depression (d = 0.28). Parental rejection was more strongly related to childhood depression than was parental control. More specifically, the lack of positive parental behaviors such as warmth and acceptance combined with the presence of aversive parental behaviors such as criticism were significantly related to the development, maintenance, and relapse of childhood depression (McLeod et al., 2007b). Additionally, some studies suggest that a child's temperament may play a moderating role in the relationship between parenting style and development and/or maintenance of child internalizing symptoms. For example, children with low levels of fear may be more likely to display increases

in depression over time in response to a negative maternal parenting style (e.g., criticism, low warmth; Kiff, Lengua, & Bush, 2011). Authoritative parenting (e.g., high in care, moderate in control) may also serve as a protective factor against depressive symptomology in children and adolescents (Milevsky, Schlechter, Netter, & Keehn, 2007).

However, many studies on parenting and depression fail to control for the overlap in anxiety and depression (i.e., negative affect) or simply combine anxiety and depression on a broad internalizing symptomology scale. Additionally, variables such as "parental rejection" and "negative parenting" are inconsistently described throughout studies, with many studies equating low parental warmth with hostile or neglectful parenting rather than evaluating parental care on a spectrum.

Operationalizing Parenting Variables

There is clearly a need to operationalize relevant variables; for example, there is a great deal of inconsistency in how studies define and measure parental control and care, and these differences may lead to weak or contradictory conclusions across studies. One meta-analysis defined parental control across studies in concepts as varied as: parental over-involvement in child play, hostility, psychological control, restriction of a child's freedom, and lack of autonomy granting (van der Bruggen et al., 2008). Parental care has been described as warmth and absence of withdrawal or aversiveness (McLeod et al., 2007b). These concepts have been measured through self-report measures of parenting style and observations of parental behavior in semi-structured play activities or problem-solving tasks. These vague and incongruent definitions do the field a disservice, affecting interpretation of results across studies and hindering replication efforts.

This study uses a novel measure of parenting behaviors, the Parental Bonding Instrument-About My Child (PBI-AMC). This measure is an extension of the Parental Bonding Instrument (PBI), a commonly used measure of the parent-child relationship based on dimensions of parental care and control (Murphy, Brewin, & Silka, 1997; Parker, Tupling, & Brown, 1979). The PBI is an adult retrospective measure of parenting; studies using the PBI have indicated that a parenting style characterized by low care and high control is linked to poor coping and psychopathologies such as mood disorders, anxiety, and conduct disorder across the lifespan (Freeze, Burke, & Vorster, 2014; Ollendick & Horsch, 2007; Zemore & Rinholm, 1989). While the PBI has been modified to assess child-reported beliefs about current parent-child attachment (Kendler, 1996), the lack of a measure that assesses ongoing parent-reported attitudes and behaviors was significant.

The Parental Bonding Instrument-About My Child (PBI-AMC; Davis, 2015) is a 25-item measure created to address this gap by assessing parental perceptions of current parent-child bonding. The PBI-AMC is an extension of the PBI, as items were rephrased to assess ongoing parental attitudes and behaviors by changing the tense from past to present. While the PBI-AMC retained the four-point Likert scale used in the original PBI, the response options were changed from a representativeness scale (i.e., very like, moderately like, moderately unlike, and very unlike) to a frequency scale (i.e., almost always, often, sometimes, and never) in order to facilitate more accurate assessments of parenting behaviors and attitudes. This helps address a limitation in parenting research, as the PBI-AMC's use of a frequency scale may bridge the agreement gap between questionnaire and observational research. Some studies suggest that representativeness scales are more often subject to reporter bias while frequency scales are

typically more objective (van der Bruggen et al., 2008). Some items on each scale are reverse-scored to increase validity.

The PBI-AMC has a three-factor structure composed of care, overprotection, and control. An exploratory factor analysis of the PBI-AMC in a sample of 191 mother-child dyads yielded Eigenvalues which indicated that 9.8% of the variance was explained by the first factor, 14.1% by the second factor, and 28.3% by the third factor (52.2% explained by the three-factor structure; Kaskas et al., 2015). The parental care factor is characterized by affectionate behaviors and investment in the child's emotions and well-being; example items include "I enjoy talking things over with my child," "I smile at my child," and "I do not seem to understand what my child needs or wants" (an example of a reverse-scored item). The parental overprotection factor includes items such as "I baby my child" and "I feel my child cannot look after herself/himself unless I am around," promoting the child's dependence on the parent. Finally, the parental control factor includes parenting behaviors which restrict or limit a child's autonomy; example items include "I let my child decide things for herself/himself" and "I let my child dress however she or he pleases".

However, the parental overprotection factor can be conflated with variables including socioeconomic status of the family, age of the child, safety of the child's school and neighborhood, and cultural differences in parental involvement (Hill, 2006). Therefore, the current study focuses on parental control and care (i.e., omitting parental overprotection) in mothers, as the PBI-AMC has not yet been tested in a large sample of fathers. Additionally, most studies have found a stronger effect of maternal parenting on child internalizing symptomology, and it has been suggested that mothers and fathers may have different thresholds

of care and control in relation to their child(ren)'s internalizing symptoms (Milevsky et al., 2007; van der Bruggen et al., 2008).

Present Study and Rationale

Previous research has examined broad aspects of the relationship between parenting and childhood psychopathology. However, inconsistent and unclear operationalization of parenting variables (i.e., control, care, stress) has limited interpretability of findings. Additionally, little attention has been given to potential moderators of the relationship between parenting and child internalizing symptoms. This study aimed to address the limitations of the literature by examining child age, child gender, child ethnicity, and parenting stress as potential moderators of the relationship between parenting and child internalizing symptoms. Specifically, the purpose of this study was to investigate moderators of the relationships between (1) maternal control and child anxiety and (2) maternal care and child depression. In order to rule out other potential predictors, the relationships between (1) maternal control and child depression and (2) maternal care and child anxiety were also assessed; however, no hypotheses were posited for these two exploratory analyses.

Hypotheses

Hypothesis 1: Higher parental control, as measured by the control scale on the PBI-AMC, will be predictive of greater child anxiety, as measured by the total score on the Multidimensional Anxiety Scale for Children (MASC).

Hypothesis 2: A negative relationship will be found between maternal care (as measured by the care scale of the PBI-AMC) and child depression (as measured by the Children's Depression Inventory; CDI).

Hypothesis 3: Child age and gender will moderate the relationship between parenting style (control or care, as measured by the PBI-AMC) and child internalizing symptoms (anxiety or depression, as measured by the MASC or CDI, respectively). It was hypothesized that older children will have higher internalizing symptoms than younger children experiencing the same level of negative parenting (i.e., higher maternal control and/or lower maternal care). As middle childhood and early adolescence is a crucial time for identity formation and development of self-esteem, it was hypothesized that older youth will internalize negative parenting more than younger children (e.g., believing "I must not be able to do this by myself, and that's why my mother is controlling" and/or "I must not deserve care, and that's why my mother is not warm"), leading to higher internalizing symptoms. It was also hypothesized that females will have higher internalizing symptoms than males experiencing the same level of negative parenting. Females tend to place more value on interpersonal relationships and may internalize negative interpersonal experiences and feedback more than males, leading to higher internalizing symptoms.

Hypothesis 4: Higher scores (i.e., more stress) on the Parenting Stress Index/Short Form (PSI/SF) will serve as a significant moderator of the relationship between parenting style (control

or care, as measured by the PBI-AMC) and child internalizing symptoms (anxiety or depression, as measured by the MASC or CDI, respectively). It was hypothesized that higher maternal stress will strengthen the effect by causing mothers to behave less consistently, which may cause children to feel less stable and/or secure in their relationship with their mothers, increasing internalizing symptoms (i.e., anxiety and/or depression).

Methods

Participants

This study utilized an existing and ongoing database of families seeking psychoeducational assessments at the Psychological Services Center, a community mental health clinic located on Louisiana State University's Baton Rouge campus. Individuals were drawn from an overall database of 376 families and included only those individuals who had completed all of the following measures: Parental Bonding Inventory-About My Child, Multidimensional Anxiety Scale for Children, Children's Depression Inventory, and Parenting Stress Inventory. For this study, only mothers were included as reporters in order to maintain reporter consistency. 189 mother-child dyads met inclusion criteria for the study. Of the 189 youth (ages 8-16 years, M = 10.97, SD = 2.26), 108 (57.1%) were male and 81 (42.9%) were female. The ethnic composition of the dyads was 153 (81%) White, 17 (9.0%) Black, 3 (1.6%) Hispanic, 3 (1.6%) Asian, and 2 (1.1%) Mixed race/Other. 11(5.8%) participant dyads did not report their ethnicity. Mothers ranged in age from 27 to 71 years (M = 40.67, SD = 6.27). All participants were either self-referred to the clinic or referred by mental health or community professionals, including school psychologists and guidance counselors.

Measures

Parenting. The Parental Bonding Inventory-About My Child (PBI-AMC; Davis, 2006) is a 25-item scale created to assess perceptions of the current parent-child relationship. The measure is an extension of the Parental Bonding Inventory (Parker et al., 1979), a retrospective measure in which adults are asked to report on their relationships with their mothers and fathers during the first sixteen years of life. Similar to the original PBI, the PBI-AMC has three different scales: care (e.g., "I tend to be affectionate with my child"), overprotection (e.g., "I feel

my child cannot look after him/herself unless I am around"), and control (e.g., "I let my child decide things for him/herself"). The PBI-AMC is an appropriate measure of parenting for mothers of children aged three to eighteen years. For each item, mothers are asked to rate their responses using a 4-point Likert scale: "Never" (1), "Sometimes" (2), "Often" (3), and "Almost Always" (4). The current study evaluated the effects of parenting on children using the care (range: 12-48) and control (range: 4-16) scales of the PBI-AMC. Cronbach's alpha for the care scale in the current study was 0.806; however, data for the individual items that this analysis is based on were only available for 175 out of 189 participants. Cronbach's alpha for the control scale in the current study was 0.646; however, data for the individual items that this analysis is based on were only available for 186 out of 189 participants.

Child Anxiety. The Multidimensional Anxiety Scale for Children (MASC; March, Parker, Sullivan, Stallings, & Conners, 1997) is a 39-item questionnaire that assesses physical symptoms (e.g., tense/restlessness, somatic/autonomic symptoms), harm avoidance (e.g., perfectionism, anxious coping), social anxiety (e.g., humiliation/rejection, performance fears), separation/panic, and provides an overall anxiety disorder index. The MASC is an appropriate assessment of anxiety for children aged eight to nineteen years. Children are asked to rate their responses for each item using a 4-point Likert scale: "Never true about me" (0), "Rarely true about me" (1), "Sometimes true about me" (2), and "Often true about me" (3). The current study used the MASC total score (range 0-117). Previous studies have found the total score's internal consistency to range from good to excellent (0.87-0.93) and the three-week and three-month test-retest reliability to be satisfactory to excellent (0.76-0.91, with lower reliability for Black participants; Grills-Taquechel, Ollendick, & Fisak, 2007; March et al., 1997; March, Sullivan, & Parker, 1999). Additionally, the MASC has demonstrated divergent validity when compared

with measures of childhood depression (e.g., CDI; Grills-Taquechel et al., 2007). Cronbach's alpha for the current study was 0.915; however, data for the individual items that this analysis is based on were only available for 82 out of 189 participants.

Child Depression. The Children's Depression Inventory (CDI; Kovacs, 1985) is a 27-item self-report measure of depression in youth, consisting of four subscales (negative mood, interpersonal problems, ineffectiveness, and anhedonia) and a total score. For each item, children are presented with three statements scored from 0 to 2 (i.e., scored in order of increasing severity) and are asked to select one sentence from the group that best describes their thoughts, feelings, and/or behavior for the past two weeks (e.g., "I am sad once in a while," "I am sad many times," or "I am sad all the time"). The CDI is an appropriate measure of depressive states in children aged seven to seventeen years. The current study used the CDI total score (range 0-54). A recent meta-analysis with 331 samples found an average internal consistency of 0.854 (i.e., good; Sun & Wang, 2015). Cronbach's alpha for the current study was 0.833; however, data for the individual items that this analysis is based on were only available for 135 out of 189 participants.

Parenting Stress. The Parenting Stress Index/Short Form (PSI/SF; Loyd & Abidin, 1985) is a 36-item questionnaire which assess the degree of stress in the parent-child relationship. The PSI/SF includes three scales with 12 items each. The first scale, parental distress, assesses stress resulting from parental factors such as anxiety or depression, conflict with spouse/partner, restrictions on time and freedom due to demands of being a parent (e.g., "I find myself giving up more of my life to meet my children's needs than I ever expected"). The parent-child dysfunctional interaction scale, which assesses parental dissatisfaction with their children, includes items such as, "My child is not able to do as much as I expected." The

difficult child scale measures parental perceptions of their child's ability to self-regulate (e.g., "My child reacts very strongly when something happens that my child doesn't like"). The PSI/SF asks the parent to select one choice from five options (Strongly Agree, Agree, Not Sure, Disagree, and Strongly Disagree). The sum of these three subscales yields the total stress score (range 35-180), which are used in the current study. Previous studies have found good internal consistency (Cronbach's alpha=0.8) and 6-month test-retest reliability (0.7-0.8; Costa et al., 2006). Cronbach's alpha for the current study was 0.949; however, data for the individual items that this analysis is based on were only available for 102 out of 189 participants.

Procedure

Participants who met inclusion criteria for the study were selected from an existing database of 376 children and families. Institutional Review Board approval was obtained and maintained for the study and for the database. Parental informed consent and child assent were obtained prior to service provision. Parents and children completed a comprehensive psychoeducational evaluation, including administration of the previously described measures. Participants received approximately nine hours of psychoeducational assessment, usually over three sessions, and their reports were explained in a subsequent hour long feedback session. Administration of all assessment materials was conducted by doctoral students in clinical psychology under the supervision of a licensed clinical psychologist. The current study analyzed results using basic demographic information (i.e., child gender, child age, child ethnicity) and the following continuous variables, which were centered: mother-reported amount of care and control in the parent-child relationship (i.e., scores on the PBI-AMC), child-reported anxiety (i.e., MASC), child-reported depression (i.e., CDI), and mother-reported amount of parenting-related stress (i.e., PSI/SF).

Statistical Analyses

Power

The necessary sample size for adequate power was determined using an a priori power analysis, which was conducted using the G*Power program (version 3.1.9.2). According to Field (2009), a power of .80 is suited to detecting an effect where one exists. In order to determine the minimum number of participants for this study, alpha was set to .05, power was set to .80, and effect size (f^2) was set at .15 (medium; consistent with previous research, including the meta-analytic review by van der Bruggen et al., 2008). The power analyses for the planned analyses (linear multiple regression: fixed model, R^2 increase; with 3 tested predictors) recommended a total sample size of 77 in order to detect a medium effect size. The sample size, 189, exceeded that amount, indicating that the study had adequate power. All statistical analyses were conducted using SPSS, version 24.

Data analysis overview

Prior to conducting any analyses, the data were examined and tested for completion and suitability for the analyses. The data were cleaned for significant outliers or points with undue leverage or influence. Missing data were handled with mean item substitution in order to reduce variability and preserve power (Field, 2009). Preliminary analyses included descriptive statistics (e.g., mean, standard deviation) and bivariate correlations on all variables. The specific goals of this study were (1) to evaluate the relationship between maternal control and child anxiety; (2) to evaluate the relationship between maternal care and child depression; (3) to evaluate the relationship between maternal control and child depression; (4) to evaluate the relationship between maternal care and child anxiety; (5) to evaluate the possible moderating effects of child gender, child age, child ethnicity, and parenting stress on the relationship between maternal

control and child internalizing symptoms (i.e., anxiety or depression); and (6) to evaluate the possible moderating effects of child gender, child age, child ethnicity, and parenting stress on the relationship between maternal care and child internalizing symptoms (i.e., anxiety or depression). The first four goals were addressed through a series of correlations and linear regression equations. The fifth and sixth goals were addressed through a series of moderated multiple regression analyses, a procedure outlined in Baron and Kenny (1986). In each of these analyses, model one consisted of the parenting variable (i.e., either maternal care or maternal depression) and the possible moderator (i.e., either child gender, child age, child ethnicity, or parenting stress) while model two consisted of the parenting variable, the possible moderator, and the interaction between the parenting variable and the possible moderator (e.g., maternal care x child gender). These moderated multiple regression analyses were set to predict one of the two independent variables, the child's internalizing symptoms (i.e., child anxiety or child depression).

Preliminary Analyses

Means and standard deviations for all variables are listed in Table 1. Maternal control and child gender were positively correlated ($r(187)= .182$, $p = .012$), while maternal care and maternal stress were negatively correlated ($r(187)= -.371$, $p < .01$). Child anxiety and child age were negatively correlated ($r(187)= -.218$, $p = .003$), while child anxiety and child depression were positively correlated [($r(187)= .414$, $p < .01$)(See Table 2 for all correlations)].

Table 1: Descriptive Statistics

Variables	Mean	Std. Deviation
Age of Child	10.97	2.262
Child Anxiety	38.415	19.5507
Child Depression	8.014	5.9461
Maternal Stress	75.726	16.7936
Maternal Care	14.0787	4.50310
Maternal Control	-4.9789	2.13617

Note. n = 189.

Table 2: Bivariate Correlations

Variables	1	2	3	4	5	6	7	8
1. Child Age	-							
2. Child Gender	.017	-						
3. Child Ethnicity	-.063	-.038	-					
4. Maternal Care	.005	-.006	-.110	-				
5. Maternal Control	-.118	.182*	.062	-.037	-			
6. Child Anxiety	-.218**	.140	.083	-.066	.016	-		
7. Child Depression	-.121	.140	.135	-.066	.022	.414**	-	
8. Maternal Stress	-.003	.013	.055	-.371**	.065	-.002	.082	-

Note. n = 189.

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Primary Analyses

Linear regressions assessing the relationship between maternal control and child anxiety (R^2<0.001, F(1, 187)= 0.046, p=.831), maternal care and child anxiety (R^2=0.004, F(1, 187)= 0.830, p=.363), maternal control and child depression (R^2=0.022, F(1, 187)= 0.089, p=.766), and maternal care and child depression (R^2=0.004, F(1, 187)= 0.814, p=.368) failed to find any significant main effect of parenting on child internalizing symptoms. In a multiple regression analysis with both maternal care and control entered as predictors of child anxiety, the overall model was nonsignificant (R^2=0.005, F(2, 186)= 0.429, p=.652), and neither maternal care (β=-.066, t(186)= -.902, p=.368) nor maternal control (β=.013, t(186)= .180, p=.857) emerged as a

significant predictor of child anxiety. Similarly, in a multiple regression analysis with both maternal care and control entered as predictors of child depression, the overall model was nonsignificant (R^2=0.005, F(2, 186)= 0.440, p=.645), and neither maternal care (β=-.065, t(186)= -.890, p=.375) nor maternal control (β=.019, t(186)= .265, p=.791) emerged as a significant predictor of child depression. Age of child emerged as a nonspecific predictor of child anxiety (β=-.218, t(187)= -3.054, p=.003) and also explained a significant proportion of variance in child anxiety (R^2=0.048, F(1, 187)= 9.326, p=.003); younger children had higher anxiety. Gender of child trended toward significance as a nonspecific predictor of child anxiety (β=.140, t(187)= 1.939, p=.054; R^2=0.020, F(1, 187)= 3.760, p=.054) and of child depression (β=.140, t(187)= 1.940, p=.054; R^2=0.020, F(1, 187)= 3.763, p=.054), with females exhibiting higher anxiety and depression than males. Age of child was not a significant predictor of child depression (R^2=0.015, F(1, 187)= 2.773, p=.098). Neither ethnicity of child (R^2=0.007, F(1, 187)= 1.306, p=.254) nor maternal stress (R^2<0.001, F(1, 187)<0.000, p=.983) were significant predictors of child anxiety. Neither ethnicity of child (R^2=0.018, F(1, 187)= 3.481, p=.064) nor maternal stress (R^2=0.007, F(1, 187)= 1.258, p=.263) were significant predictors of child depression.

No significant interactions were found between maternal care, child depression, and age of child (R^2=0.022, F(3, 185)= 1.380, p=.250); maternal care, child depression, and gender of child (R^2=0.024, F(3, 185)= 1.515, p=.212); maternal care, child depression, and ethnicity of child (R^2=0.030, F(3, 185)= 1.886, p=.133); maternal care, child depression, and maternal stress (R^2=0.012, F(3, 185)= 0.755, p=.521); maternal control, child depression, and age of child (R^2=0.018, F(3, 185)= 1.105, p=.349); maternal control, child depression, and gender of child (R^2=0.020, F(3, 185)= 1.242, p=.296); maternal control, child depression, and ethnicity of child (R^2=0.019, F(3, 185)= 1.189, p=.315); maternal control, child depression, and maternal stress

(R^2=0.010, F(3, 185)= 0.631, p=.596); maternal control, child anxiety, and age of child (R^2=0.048, F(3, 185)= 3.083, p=.978); maternal control, child anxiety, and gender of child (R^2=0.020, F(3, 185)= 1.251, p=.293); maternal control, child anxiety, and ethnicity of child (R^2=0.013, F(3, 185)= 0.800, p=.495); maternal control, child anxiety, and maternal stress (R^2=0.003, F(3, 185)= 0.185, p=.906); maternal care, child anxiety, and gender of child (R^2=0.027, F(3, 185)= 1.706, p=.167); maternal care, child anxiety, and ethnicity of child (R^2=0.013, F(3, 185)= 0.817, p=.486); or maternal care, child anxiety, and maternal stress (R^2=0.016, F(3, 185)= 1.013, p=.388). However, age of child was a significant moderator of the relationship between child anxiety and maternal care (R^2=0.097, F(3, 185)= 6.627, p<.001; ΔR^2 = .045; see table 3); less maternal care was associated with higher anxiety for younger children.

Table 3: Child Age as a Moderator of the Relationship Between Child Anxiety and Maternal Care

		B	SE B	β	R	R^2	R^2 Change
Model 1					.228	.052	.052
	Maternal care	-.283	.310	-.065			
	Age of child	-1.881	.617	-.218*			
Model 2					.312	.097	.045
	Maternal care	-5.095	1.609	-1.174*			
	Age of child	-1.685	.607	-.195*			
	Interaction between maternal care and age of child	.451	.148	1.129*			

Note: n=189; *p<.05

Discussion

This study yielded several interesting and surprising findings. Consistent with previous research, child age was found to be a significant predictor of child anxiety. However, contrary to previous research, younger children in this sample had higher levels of anxiety than adolescents (van der Bruggen et al., 2008). This may be partially attributed to the skewed nature of the sample, as 73.5% of the sample were children (i.e., between the ages of 8 and 12 years) and only 26.5% of the sample were adolescents (i.e., ages 13-16). Although the sample was not normally distributed, age was evaluated as a continuous rather than categorical variable, which may mitigate the effects of the skew and kurtosis.

Although it should be interpreted with caution given the number of analyses performed, child age was also a significant moderator of the relationship between child anxiety and maternal care, as less maternal care was associated with higher anxiety for younger children. This suggests that younger children are more negatively affected than older youth by a parenting style which is low in warmth, affectionate behaviors, and investment in the child's emotions and well-being. Children may have more difficulty coping with feelings of anxiety if their mother does not appear to understand or be invested in their needs, wants, and experiences. This dysfunctional parent-child relationship may result in development of poorer coping strategies, such as avoidance or rumination, which may, in turn, increase levels of child anxiety.

Interestingly, this finding emerged contrary to hypotheses and existing research, which suggests that parental control accounts for approximately 18% of variance in child anxiety while parental rejection/lack of warmth accounts for <1% of variance in child anxiety (McLeod et al., 2007a). This study failed to find a significant effect of parental control on symptoms of anxiety or depression in children. Additionally, this study did not find a significant effect of parenting

variables (i.e., care, control, or stress) on symptoms of depression in children, despite a recent meta-analysis which found that parenting accounted for 8% of the variance in childhood depression (McLeod et al., 2007b).

There are a few possible explanations for the discrepancies between this study and results in the existing literature. First and foremost, it has been noted that existing research on parenting behaviors and child internalizing symptoms is limited and highly inconsistent; the field is still in its infancy and continuously evolving. Additionally, existing research has chiefly been conducted with community samples rather than the clinical sample used in this study. This has implications for symptom range and severity; the use of a clinical sample is a strength of this study.

Furthermore, it has been noted that there is a great deal of inconsistency in how previous studies have defined and measured parenting variables such as control and care. This study is the first to use the Parental Bonding Instrument-About My Child (PBI-AMC), a novel measure which examines current parental behaviors (e.g., "I smile at my child" on the care factor, "I let my child dress however she or he pleases" on the control factor) and attitudes (e.g., "I enjoy talking things over with my child" on the care factor, "I let my child decide things for herself/himself" on the control factor). This measure also uses a frequency scale (i.e., almost always, often, sometimes, and never) rather than the representativeness scale (i.e., very like, moderately like, moderately unlike, and very unlike) typical of other parenting measures. This was designed to reduce reporter bias, which may have facilitated more accurate assessments of parenting behaviors and attitudes than previous research. However, it is possible that mothers may have engaged in impression management, which may have affected the accuracy of their

reporting. Future studies may wish to include a measure of impression management in order to obtain a more complete picture of parenting.

Even so, this study has several limitations. First, self-report measures (i.e., self-reported child internalizing symptoms, self-reported parenting variables) are subject to reporter bias and inaccurate or noncredible responding. Future studies may wish to include parent or teacher reports of child internalizing symptoms (i.e., anxiety, depression) and/or a child-rated measure of parental behaviors and attitudes. Second, the study is not restricted to clinically significant levels of child anxiety or depression. While the continuous nature of the child internalizing variables may be considered a strength of the study, it may also limit interpretation and clinical utility of results. Third, the study views overall levels of anxiety without differentiating between the different types of anxiety disorders. For example, a child with Separation Anxiety Disorder is hypothesized to be more susceptible to differences in parenting behaviors and attitudes as compared to a child with a Specific Phobia. Future studies may wish to evaluate parenting variables by examining group differences in children with different anxiety disorders. Fourth, this study used an, as yet, untested instrument to assess parental behaviors (the PBI-AMC) and it remains to be seen how this instrument will perform in future research.

Future directions could also include randomized controlled trials of parent training interventions for children with and without internalizing symptoms. This will allow factors such as parental care and control to be examined more causally and will help determine whether parenting behaviors and attitudes can significantly affect the course of child internalizing symptoms over time. Since a limitation of this study was that it was purely cross-sectional, future directions should focus on longitudinal studies that measure the effects of parenting on broad internalizing symptomology for children across time. Additionally, follow-up studies

should include fathers, as the parent-child gender match (or mismatch) may serve as a potential moderator.

References

Abidin, R. R. (1992). The determinants of parenting behavior. *Journal of Clinical Child Psychology*. http://doi.org/10.1207/s15374424jccp2104_12

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, *51*(6), 1173–1182.

Costa, N. M., Weems, C. F., Pellerin, K., & Dalton, R. (2006). Parenting stress and childhood psychopathology: An examination of specificity to internalizing and externalizing symptoms. *Journal of Psychopathology and Behavioral Assessment*, *28*(2), 113–122. http://doi.org/10.1007/s10862-006-7489-3

Davis, T. E. (2006). *The Parental Bonding Instrument-About My Child.* Unpublished measure. Department of Psychology, Louisiana State University, Baton Rouge, LA.

Field, A. P. (2009). *Discovering statistics using SPSS*. Los Angeles, CA: SAGE Publications.

Freeze, M. K., Burke, A., & Vorster, A. C. (2014). The role of parental style in the conduct disorders: A comparison between adolescent boys with and without conduct disorder. *Journal of Child and Adolescent Mental Health*, *26*(1), 63–73. http://doi.org/10.2989/17280583.2013.865627

Ginsburg, G. S., & Schlossberg, M. C. (2002). Family-based treatment of childhood anxiety disorders. *International Review of Psychiatry*, *14*(2), 143–154. http://doi.org/10.1080/09540260220132662

Grant, K. A., Bautovich, A., McMahon, C., Reilly, N., Leader, L., & Austin, M. P. (2012). Parental care and control during childhood: Associations with maternal perinatal mood disturbance and parenting stress. *Archives of Women's Mental Health*, *15*(4), 297–305. http://doi.org/10.1007/s00737-012-0292-0

Grills-Taquechel, A. E., Ollendick, T. H., & Fisak, B. (2008). Reexamination of the MASC factor structure and discriminant ability in a mixed clinical outpatient sample. *Depression and Anxiety*, *25*(11), 942-950.

Hill, N. E. (2006). Disentangling ethnicity, socioeconomic status, and parenting: Interactions, influences and meaning. *Vulnerable Children and Youth Studies*, *1*(1), 114–124. http://doi.org/10.1080/17450120600659069

Kaskas, M., Lilly, M., NoackLeSage, F., Ryan, P., Whiting, S., & Davis, T. E. (2015, November). Confirmatory factor analysis of Parental Bonding Instrument-About My Child (PBI-AMC): A maternal perspective on parent-child bonding. Poster session presented at the Association for Cognitive and Behavioral Therapies' Annual Convention, Chicago, IL.

Kendler, K. S. (1996). Parenting: A genetic-epidemiologic perspective. *The American Journal of Psychiatry*, *153*(1), 11–20. http://doi.org/10.1017/S0033291797004704

Kiff, C. J., Lengua, L. J., & Bush, N. R. (2011). Temperament variation in sensitivity to parenting: Predicting changes in depression and anxiety. *Journal of Abnormal Child*

Psychology, *39*(8), 1199–1212. http://doi.org/10.1007/s10802-011-9539-x

Klahr, A. M., Thomas, K. M., Hopwood, C. J., Klump, K. L., & Burt, S. A. (2013). Evocative gene-environment correlation in the mother-child relationship: A twin study of interpersonal processes. *Development and Psychopathology*, *25*(1), 105–118. http://doi.org/10.1017/S0954579412000934

Kovacs, M. (1985). The Children's Depression Inventory (CDI). *Psychopharmacology Bulletin*, *21*, 995–998.

Lovejoy, M. C., Graczyk, P. A., O'Hare, E., & Neuman, G. (2000). Maternal depression and parenting behavior. *Clinical Psychology Review*, *20*(5), 561–592. http://doi.org/10.1016/S0272-7358(98)00100-7

Loyd, B. H., & Abidin, R. R. (1985). Revision of the Parenting Stress Index. *Journal of Pediatric Psychology*, *10*(2), 169–177. http://doi.org/10.1093/jpepsy/10.2.169

March, J. S., Parker, J. D., Sullivan, K., Stallings, P., & Conners, C. K. (1997). The Multidimensional Anxiety Scale for Children (MASC): Factor structure, reliability, and validity. *Journal of the American Academy of Child and Adolescent Psychiatry*, *36*(4), 554–65. http://doi.org/10.1097/00004583-199704000-00019

March, J. S., Sullivan, K., & Parker, J. (1999). Test–retest reliability of the multidimensional anxiety scale for children. *Journal Of Anxiety Disorders*, *13*(4), 349-358. doi:10.1016/S0887-6185(99)00009-2

McClure, E. B., Brennan, P. A., Hammen, C., & Le Brocque, R. M. (2001). Parental anxiety disorders, child anxiety disorders, and the perceived parent-child relationship in an Australian high-risk sample. *Journal of Abnormal Child Psychology*, *29*(1), 1–10. http://doi.org/10.1023/A:1005260311313

McGinn, L. K., Cukor, D., & Sanderson, W. C. (2005). The relationship between parenting style, cognitive style, and anxiety and depression: Does increased early adversity influence symptom severity through the mediating role of cognitive style? *Cognitive Therapy and Research*, *29*(2), 219–242. http://doi.org/10.1007/s10608-005-3166-1

McLeod, B. D., Weisz, J. R., & Wood, J. J. (2007a). Examining the association between parenting and childhood anxiety: A meta-analysis. *Clinical Psychology Review*, *27*(8), 155–172. http://doi.org/10.1016/j.cpr.2007.03.001

McLeod, B. D., Weisz, J. R., & Wood, J. J. (2007b). Examining the association between parenting and childhood depression: A meta-analysis. *Clinical Psychology Review*, *27*(8), 986–1003. http://doi.org/10.1016/j.cpr.2007.03.001

Milevsky, A., Schlechter, M., Netter, S., & Keehn, D. (2007). Maternal and paternal parenting styles in adolescents: Associations with self-esteem, depression and life-satisfaction. *Journal of Child and Family Studies*, *16*(1), 39–47. http://doi.org/10.1007/s10826-006-9066-5

Murphy, E., Brewin, C. R., & Silka, L. (1997). The assessment of parenting using the Parental Bonding Instrument: Two or three factors? *Psychological Medicine*, *27*, 333–341. http://doi.org/10.1017/S0033291796004606

Ollendick, T. H., & Horsch, L. M. (2007). Fears in clinic-referred children: Relations with child anxiety sensitivity, maternal overcontrol, and maternal phobic anxiety. *Behavior Therapy*, *38*(4), 402–411. http://doi.org/10.1016/j.beth.2006.12.001

Parker, G., Tupling, H., & Brown, L. B. (1979). A Parental Bonding Instrument. *British Journal of Medical Psychology*, *52*, 1–10. http://doi.org/10.1037/t06510-000

Rapee, R. M. (2001). The development of generalized anxiety. *The Developmental Psychopathology of Anxiety*, 481–503.

Rezendes, D. L., & Scarpa, A. (2011). Associations between parental anxiety/depression and child behavior problems related to Autism Spectrum Disorders: The roles of parenting stress and parenting self-efficacy. *Autism Research and Treatment*, *2011*, 1–10. http://doi.org/10.1155/2011/395190

Rodriguez, C. M. (2011). Association between independent reports of maternal parenting stress and children's internalizing symptomatology. *Journal of Child and Family Studies*, *20*(5), 631–639. http://doi.org/10.1007/s10826-010-9438-8

Schrock, M., & Woodruff-Borden, J. (2010). Parent-child interactions in anxious families. *Child & Family Behavior Therapy*. http://doi.org/10.1080/07317107.2010.515523

Shay, N. L. (2010). The connection between maternal depression, parenting, and child externalizing disorders (Doctoral dissertation). Retrieved from Dissertations and Theses database. (UMI No. 3390205)

Sullivan, P. F., Neale, M. C., & Kendler, K. S. (2000). Genetic epidemiology of major depression: Review and meta-analysis. *American Journal of Psychiatry*, *157*(10), 1552-1562. http://doi.org/10.1176/appi.ajp.157.10.1552

Sun, S., & Wang, S. (2015). The Children's Depression Inventory in worldwide child development research: A reliability generalization study. *Journal Of Child And Family Studies*, *24*(8), 2352-2363. doi:10.1007/s10826-014-0038-x

van der Bruggen, C. O., Stams, G. J., & Bögels, S. M. (2008). The relation between child and parent anxiety and parental control: A meta-analytic review. *Journal of Child Psychology and Psychiatry, and Allied Disciplines*, *49*(12), 1257-1269. http://doi.org/10.1111/j.1469-7610.2008.01898.x

Webster-Stratton, C., & Hammond, M. (1988). Maternal depression and its relationship to life stress, perceptions of child behavior problems, parenting behaviors, and child conduct problems. *Journal of Abnormal Child Psychology*, *16*(3), 299–315. http://doi.org/10.1007/BF00913802

Wilson, S., & Durbin, C. E. (2010). Effects of paternal depression on fathers' parenting behaviors: A meta-analytic review. *Clinical Psychology Review*, *30*(2), 167–80. http://doi.org/10.1016/j.cpr.2009.10.007

Wood, J. J., McLeod, B. D., Sigman, M., Hwang, W.-C., & Chu, B. C. (2003). Parenting and childhood anxiety: Theory, empirical findings, and future directions. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, *44*(1), 134–151. http://doi.org/10.1111/1469-7610.00106

Woodruff-Borden, J., Morrow, C., Bourland, S., & Cambron, S. (2002). The behavior of anxious parents: Examining mechanisms of transmission of anxiety from parent to child. *Journal of Clinical Child and Adolescent Psychology, 31*(3), 364–374. http://doi.org/10.1207/S15374424JCCP3103_08

Zemore, R., & Rinholm, J. (1989). Vulnerability to depression as a function of parental rejection and control. *Canadian Journal of Behavioural Science, 21*(4), 364–376. http://doi.org/10.1037/h0079844

Appendix

Institutional Review Board Approval

ACTION ON PROTOCOL CONTINUATION REQUEST

Institutional Review Board
Dr. Dennis Landin, Chair
130 David Boyd Hall
Baton Rouge, LA 70803
P: 225.578.8692
F: 225.578.5983
irb@lsu.edu | lsu.edu/irb

TO: Thompson Davis
Psychology

FROM: Dennis Landin
Chair, Institutional Review Board

DATE: September 26, 2016

RE: **IRB#** 2637

TITLE: Anxiety Disorders Clinic: Assessment

New Protocol/Modification/Continuation: Continuation

Review type: Full ___ Expedited _X_ **Review date:** 9/22/2016

Risk Factor: Minimal ___X___ Uncertain _____ Greater Than Minimal_____

Approved_____X_____ **Disapproved**_____

Approval Date: 9/26/2016 **Approval Expiration Date:** 9/25/2017

Re-review frequency: (annual unless otherwise stated)

Number of subjects approved: 750

LSU Proposal Number (if applicable):

Protocol Matches Scope of Work in Grant proposal: (if applicable)

By: Dennis Landin, Chairman _____

PRINCIPAL INVESTIGATOR: PLEASE READ THE FOLLOWING –
Continuing approval is CONDITIONAL on:

1. Adherence to the approved protocol, familiarity with, and adherence to the ethical standards of the Belmont Report, and LSU's Assurance of Compliance with DHHS regulations for the protection of human subjects*
2. Prior approval of a change in protocol, including revision of the consent documents or an increase in the number of subjects over that approved.
3. Obtaining renewed approval (or submittal of a termination report), prior to the approval expiration date, upon request by the IRB office (irrespective of when the project actually begins); notification of project termination.
4. Retention of documentation of informed consent and study records for at least 3 years after the study ends.
5. Continuing attention to the physical and psychological well-being and informed consent of the individual participants, including notification of new information that might affect consent.
6. A prompt report to the IRB of any adverse event affecting a participant potentially arising from the study.
7. Notification of the IRB of a serious compliance failure.
8. **SPECIAL NOTE: Make sure to use bcc when emailing more than one recipient.**

**All investigators and support staff have access to copies of the Belmont Report, LSU's Assurance with DHHS, DHHS (45 CFR 46) and FDA regulations governing use of human subjects, and other relevant documents in print in this office or on our World Wide Web site at http://www.lsu.edu/irb*

PARENTAL CONSENT FORM

Project Title: Anxiety Disorders Clinic: Assessment of Children and Adolescents

Performance Site: Physical Address: Psychological Services Center, LSU, 31 Johnston Hall, Baton Rouge, LA 70803. Mailing Address: Psychological Services Center, 236 Audubon Hall, Baton Rouge, LA 70803

Investigator: The following investigator is available for questions Monday-Friday, 9:00 a.m.- 4:30 p.m.
Dr. Thompson Davis, III
Psychology Department, LSU
(225) 578-1494

Purpose of the Study: The purpose of this research project is to assess and diagnose children and adolescents who are experiencing various difficulties, such as academic problems, difficulties paying attention, mood-related difficulties, and/or worries and fears.

Inclusion Criteria: Children and adolescents 2-17 years of age.

Exclusion Criteria: Children who do not meet the age requirements; non-English speakers; and/or children who have a comorbid condition that would severely limit their ability to complete an assessment.

Maximum Number of Subjects: The maximum number of subjects will be 750.

Study Procedures/Description of the Study: Participants will be asked to complete questionnaires and interviews with the investigators.

Benefits: The benefit will be the thorough assessment and diagnosis of problems affecting the child or adolescent. The participants understand that the examiners cannot guarantee the presence or absence of psychopathology. Further, the final report will reflect the clinical opinions (based on the assessment data collected) of the primary investigator.

Risks/Discomforts: Some participants may not feel comfortable answering questions about their difficulties. The purpose of asking particular questions will be explained, however, participants will also be told that they may refuse to answer questions—though this may compromise portions of the final report.

Right to Refuse: Participation is voluntary and a child (or adolescent) will become part of the study only if both child and parent agree to the child's participation. At any time, either the subject or the parent may withdraw from the study without penalty or loss of any benefit to which they might otherwise be entitled.

Privacy: Records with identifying information will be kept in a locked facility. Electronic data will be entered without identifying information. Results of the study may be published, but no names or identifying information will be included for publication. Subject identity will remain confidential unless disclosure is required by law (e.g., suspected or reported ongoing child abuse or neglect). I understand that the investigators are required by law to report any reasonable suspicions.

Financial Information: The cost for participation in this study is the same cost as a psychoeducational evaluation at the PSC ($500.00). This includes the cost of administering achievement and intelligence tests, and assessing psychopathology via semi-structured interviews, school observations, and rating scales. Participants who withdraw will pay a pro-rated fee based on the assessments given and the time

involved. Participants wishing to withdraw after learning the outcome of their assessment forfeit their evaluation fee.

Withdrawal: Participants may withdraw from the research study at any time. Parents wishing to withdraw should contact the principal investigator or co-investigators in writing as soon as this decision has been made.

Removal: Participants may be removed from the study without consent if they are believed to be a danger to themselves or others. Removal may also occur if the investigators lose contact with a family after attempts to reach them or if the investigators believe removal and assessment else where would be in the best clinical interest of the participants.

Alternatives: Every effort will be made to use the most appropriate methods of assessment and diagnosis. Participants understand that clinical assessment and the tools used to that end are determined by the clinical judgment of the investigator. Participants desiring the use of specific assessment tools deemed unnecessary by the investigator will be referred out.

Unforeseeable Risks: There may be unforeseeable risks to participants of this study as a result of participating, however, steps are taken to minimize any potential foreseeable risks and discomfort.

Study-associated injury or illness: Though injuries are not anticipated, medical care will be summoned for participants sustaining injury or illness as a result of the study. Participants should understand that even with precautions in place, should any injuries occur either during or as a result of participation neither LSU nor the researchers will be able to provide any compensation or medical care.

Study-related illness or injury: In case of medical emergency and in case further psychological attention is needed, we have listed resources below:

Medical Services
911 (for emergencies)
Mental Health Services
911 (for emergencies)
Psychological Services Center (225) 578-1494

New Findings: Participants will be notified if newly published research pertaining to the assessment provided by this study become available.

Signatures:

The study has been discussed with me and all my questions have been answered. I may direct additional questions regarding study specifics to the investigators. If I have questions about subjects' rights or other concerns, I can contact Dennis Landin, Chairman, LSU Institutional Review Board, (225)578-8692. I agree to participate in the study described above and acknowledge the researchers' obligation to provide me with a copy of this consent form if signed by me.

_____ _____

Parent/guardian Signature Date

**Reader of the consent form, please sign the statement below if the consent form was read to the parent because he/she is unable to read:*
The parent/guardian has indicated to me that he/she is unable to read. I certify that I have read this consent form to the parent/guardian and explained that by completing the signature line above, he/she has agreed to participate and has given permission for the child to participate in the study.

Signature of Reader _____ Date _____

Child and Adolescent Assent Form

I, _____, agree to be in this study that looks at how I think and feel. I will be asked to answer questions about any fears, worries, emotions, or behaviors that I may have, as well as questions about how I get along with others (like my friends and family). I can decide to stop being in the study at any time without getting in trouble.

Child/Adolescent Signature _____ Date _____ Age _____

Witness Signature* _____ Date _____

(*Witness must be present for the assent process, not just the signature by the minor.)

Vita

Maysa Marwan Kaskas received her Bachelor's degree in Cognitive Studies and English and History (interdisciplinary) at Vanderbilt University in 2014. After graduation, she began the Clinical Psychology doctoral program at Louisiana State University. She will continue to research child and adolescent internalizing disorders upon receiving her Master's degree, which she is expected to receive in December 2016.