# CONTROLLING, PROTECTIVE, OR BOTH: AN EXAMINATION OF PARENTING BEHAVIORS ASSOCIATED WITH CHILD ANXIETY

By

#### MADDISON N. TOLLIVER-LYNN

Bachelor of Arts in Psychology University of Kansas Lawrence, KS 2014

Master of Science in Psychology Oklahoma State University Stillwater, OK 2019

Submitted to the Faculty of the Graduate College of the Oklahoma State University in partial fulfillment of the requirements for the Degree of DOCTOR OF PHILOSOPHY July, 2021

# CONTROLLING, PROTECTIVE, OR BOTH: AN EXAMINATION OF PARENTING BEHAVIORS ASSOCIATED WITH CHILD ANXIETY

Dissertation Approved:

Dr. Maureen A. Sullivan

Dissertation Adviser

Dr. John Chaney

Dr. Lucia Ciciolla

Dr. Carrie Winterowd

## ACKNOWLEDGEMENTS

I would like to express my very great appreciation to Dr. Sullivan and my committee for providing valuable guidance throughout this process. This project is dedicated to Cody and Forrest.

Acknowledgements reflect the views of the author and are not endorsed by committee members or Oklahoma State University.

#### Name: MADDISON N. TOLLIVER-LYNN

#### Date of Degree: JULY, 2021

# Title of Study: CONTROLLING, PROTECTIVE, OR BOTH: AN EXAMINATION OF PARENTING BEHAVIORS ASSOCIATED WITH CHILD ANXIETY

#### Major Field: PSYCHOLOGY

Abstract: Overcontrol and overprotection are often used interchangeably within parenting literature. This has also impacted the questionnaires that are used to assess these parenting behaviors. However, theoretical differences between these constructs may result in different associations with child anxiety. These autonomy-restricting parenting behaviors may be of particular importance during middle childhood/early adolescence as children are building independence during this developmental period. The current study examined measures of overprotective and overcontrolling parenting behaviors in a sample of 262 parents of 8- to- 14-year-old children via online recruitment. Three measures of parenting associated with parental overprotection and overcontrol were examined. Further, a series of factor analyses were completed to examine the factor structures of these measures. An additional factor analysis examined items across all three questionnaires. Individual factors of overcontrol and overprotection that map onto theoretical definitions of the constructs were not found. Findings may indicate that current measures are unable to distinguish between these constructs. Additionally, a measure of overcontrol and a measure of overprotection were both positively associated with child anxiety. There was not a significant difference between the strength of correlations. This research highlights the need for clarity in definitions and measurement of parenting behaviors. Continued research may result in increased utility of parenting measures in the evaluation of child anxiety treatment outcomes.

## TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTION	1
II. REVIEW OF LITERATURE	3
Definitions	4
Overprotection	4
Control	6
Involvement	7
Contextual Parenting	9
Parenting Across Development	10
Child Anxiety	
Conclusions	
Current Study	
Hypotheses	13
III. METHOD	
Participants	15
Materials	15
Procedure	
IV. RESULTS	
Missing Data	
Descriptive Statistics	19
Bivariate Correlations	19
Confirmatory Factor Analysis	20
Exploratory Factor Analyses	20
Bivariate Correlations and Significance Testing	

Chapter	Page
V. DISCUSSION	24
Clinical Implications	
Limitations and Strengths	29
Future Directions for Research	
Conclusion	
REFERENCES	
APPENDICES	42

## LIST OF TABLES

## Table

# Page

1.	Definitions	42
2.	Demographic Information	45
3.	Results From an Exploratory Factor Analysis of PBI	47
4.	Results From an Exploratory Factor Analysis of USC-POS	49
5.	Results From an Exploratory Factor Analysis of Items of PBI, PAKRS-PR, a	and
	USC-POS	50
6.	Zero-order Correlations	52

#### CHAPTER I

#### INTRODUCTION

Parenting involves a series of decisions on a daily basis that have a cumulative impact on children. Despite good intentions, some parenting behaviors may result in unintended consequences. For example, protective behaviors may increase security in early childhood but restrict autonomy in later childhood. Attempts to understand the impact of specific parenting behaviors is hindered by inconsistent definitions of several parenting constructs. More specifically, the terms overprotection and overcontrol are often used interchangeably, limiting our ability to detect nuances in each of these constructs. While there is a strong theoretical basis for overprotective parenting behaviors predicting child anxiety, the research support for this is lacking possibly due to a conflation with overcontrol. This is also reflected in current measures, which makes it difficult to determine whether overprotection, independent of overcontrol, is associated with negative child outcomes such as anxiety.

This paper will present a review of the literature on overprotection and overcontrol and links to child anxiety. Definitions of these constructs and methodological issues will be examined. Multiple measures of overcontrolling and overprotective parenting will be presented as well as research on child anxiety and parenting.

Finally, a study examining three measures of overcontrol and overprotection in a sample of parents of children in middle childhood/early adolescence is presented. As

child anxiety symptoms are increasing during this developmental period (Davis et al., 2015), these parenting behaviors may be particularly important to examine during this time. However, there are few well-supported measures of overcontrol and overprotection for this developmental period. Factor analyses will determine underlying structures of measures associated with overcontrol and overprotection. Additionally, further analysis will display how these constructs overlap and relate to child anxiety. This examination will provide a framework for future research involving measurement of overcontrol and overprotection and the association between these factors and anxiety during middle childhood/early adolescence.

#### CHAPTER II

#### **REVIEW OF LITERATURE**

Parenting is a complex process that can be classified within typologies or examined more closely by focusing on specific behaviors. Parenting has been studied in relation to many family and individual functioning factors. Meta-analyses have found mainly small to moderate effect sizes for parenting when examining specific child outcomes (e.g., anxiety; McLeod et al., 2007) despite the vital role parenting plays in theories of child development. However, this may be impacted by several factors, including measurement method (e.g., observation versus questionnaire). Evaluation of definitions and measures of parenting constructs may help to better understand the role of parenting on child outcomes.

Baumrind (1966; 1967) identified specific styles of parenting that have direct implications for our current study. Authoritative parents enforce rules consistently and use love to reinforce positive behaviors. These parents display high levels of behavioral control, acceptance, and psychological autonomy (Baumrind, 1966). Baumrind describes these parents as using control, which refers to the consistent enforcement of the standards of the parent rather than "restrictiveness, punitive attitudes, or intrusiveness (p. 54)." Baumrind's use of the term control highlights the dimensions of control that were later examined by other researchers. High levels of authoritative parenting are thought to be the optimal environment for children (Baumrind, 2012). Authoritarian parents

(Baumrind, 1967) punish the dependent behaviors of the child, but do not provide the reward and praise that encourages self-motivation. These parents display high levels of behavioral control, psychological control, and rejection (Baumrind, 1966). Authoritative and authoritarian parenting provides an overview of how varying levels of control, intrusiveness, and autonomy-granting, in conjunction with other factors, impact child outcomes.

#### Definitions

Clear and consistent definitions of parenting behaviors are important for increasing our understanding of individual behaviors and the effect on child outcome. This should also lead us to the development of more accurate measures. A review of the literature on overprotection and overcontrol, however, demonstrates a lack of standard definitions and a corresponding lack of well-established measures. Table 1 presents an overview of this research. A discussion of common themes and measures follows.

#### **Overprotection.**

The typical definition of overprotection, when identified as distinct from control, involves protection from harm (e.g., Edwards et al., 2010). Parents who use a high level of overprotection impede the autonomy of their children and model anxious behaviors. Overprotection is commonly associated with parental anxiety (e.g., Clarke et al., 2013) and with child anxiety (e.g., Rork, & Morris, 2009). The association with child anxiety is especially of interest during middle childhood/early adolescence, a developmental stage during which the prevalence of anxiety increases substantially (Ghandour et al., 2019). Few measures of overprotection exist, especially within this age range, and a gold standard is lacking. Many studies of overprotection with younger children utilize

observational methods in a specific lab task, but combine overprotection and overcontrol (e.g., Greco & Morris, 2002). The Parental Bonding Instrument (PBI; Parker et al., 1979) and the My Memories of Upbringing (Castro et al., 1993), are retrospective reports by adults of their own upbringing that have been modified to work within different groups (e.g., current report of parenting). There are no well-established parent-report measures of overprotection in middle to late childhood.

#### Parental Bonding Instrument.

The PBI was developed to examine parent behaviors related to the parent-child relationship (Parker et al., 1979). Researchers sought to highlight two major contributors to the parent-child relationship, overprotection and care/warmth. In limiting the measure to these two factors, they indicated that the final Overprotection scale contained more than just items of overprotection, including overcontrol. Of 52 studies using a 2-factor solution, 26 have referred to the scale as (over)protection, 6 as (over)control, 5 as both, 7 with (over)protection as the scale name and (over)control as the extreme, and 4 with (over)control as the scale name and (over)protection as the extreme. It is evident from the literature that this factor remains unclear. Additionally, 4 studies utilized the 3-factor model identified by Kendler (1996) which separates the construct into overprotection and authoritarianism (indicative of control). Different numbers of factors have been found with samples from different countries: 4 factors in samples in China (Liu et al., 2010) and Japan (Uji et al., 2006); and 3 factors with samples in Pakistan (Qadir et al., 2005), France (Mohr et al., 1999), Japan (Narita et al., 2000), and Malaysia (Muhammad et al., 2014). Although the PBI was developed as a retrospective measure of how an individual was parented, it has been used as a parent self-report measure of current parenting

(Bureau et al., 2009; Duggan et al., 1998; Kendler et al., 2000) and a child-report measure of current parenting (Rork & Morris, 2009). There is also evidence of the longterm stability of the PBI. The maternal overprotection score did not change significantly over a 20-year follow-up (although paternal overprotection scores did change significantly with decreased scores at 10 years and increased scores at 20 years; Wilhelm et al., 2004). Even though the PBI was established as a quick measure of parent-child bonding primarily focused on care and warmth, a wealth of research has been built on the factor of overprotection.

#### Control.

The construct of control has been extensively researched and many different subdomains have been identified. Adaptive levels of control (i.e., subdomains of behavioral and confrontive control) are often identified by setting limits and firmness. Maladaptive control or overcontrol (i.e., subdomains of psychological, negative, and coercive control) is commonly identify as intrusive behaviors. Psychological control has been associated with several negative child outcomes, including behavior problems (e.g., Mabbe et al., 2019). However, high behavioral control is associated with lower levels of externalizing and internalizing problems (Barber et al., 1994) and a secure parent-child attachment (Koehn & Kerns, 2018). These different subdomains highlight that control can function in different ways depending on level and type. The Child Report of Parenting Behavior Inventory (CRPBI, Schaefer, 1965) is the most commonly used measure of child-reported psychological control. However, there is not a consistently used parent-report measure of psychological control.

#### University of Southern California-Parental Overcontrol Scale (USC-POS).

The USC-POS was specifically developed to examine non-normative levels of control (Borelli & Margolin, 2015). The USC-POS was negatively associated with care and positively associated with overprotection on the PBI. In the first study using this measure, Borelli and Margolin (2015) examined the transmission of anxiety symptoms from parents to children. Parental overcontrol was associated with child avoidance two and a half years later. The number of overcontrolling parents (none, one, or both) predicted child anxiety when controlling for child age, child gender, and parental anxiety symptoms. Maternal overcontrol mediated the association between maternal anxiety and child anxiety  $2\frac{1}{2}$  years later, when controlling the same covariates as the previous analysis. The same effect was not found for fathers. Maternal overcontrol mediated the association between child avoidant coping and later child anxiety. The same effect was found for fathers. In a more recent study, Borelli and colleagues (2017) found that this measure was not significantly correlated with the authors' observational measure of parental overcontrol (Behavioral Involvement Parenting Scale). This suggests possible differences in the way overcontrol might be observed versus experienced.

#### Involvement.

There is a wealth of research on involvement as it is a scale on a widely used parenting measure, the Alabama Parenting Questionnaire (APQ; Frick, 1991). Typical levels of involvement, also known as monitoring, are associated with several positive factors such as child prosocial behaviors (Gryczkowski et al., 2010). However, there is little research on overinvolvement, which is characterized by a parent interfering with the autonomy of his/her child (McLeod et al., 2007). This may be especially important during

middle childhood, especially given the association between this construct and child anxiety (Otto et al., 2015).

#### Parenting Anxious Kids Rating Scale- Parent Report (PAKRS-PR).

The PAKRS-PR was developed to assess a range of parenting behaviors associated with child anxiety (Flessner et al., 2017). While researchers intended to measure overprotection and overcontrol independently, psychometric evaluation led to the combination of these constructs into the Overinvolvement scale. A unique characteristic of this measure is that authors included items for the parent to compare their behavior to the parents of their child's peers in order to minimize potential age effects.

In the first study using this measure, researchers examined associations in a sample of participants from Amazon's Mechanical Turk and a community sample (Flessner et al., 2017). The Overinvolvement scale was found to be significantly and positively associated with APQ Involvement and APQ Positive Parenting, and negatively associated with APQ Poor Monitoring. Additionally, the PAKRS-PR Total score was positively correlated with child anxiety and parental anxiety. There were significant differences between groups of parent-reported anxiety disordered children versus non-anxiety disordered children for the PAKRS-PR Total score and Overinvolvement subscale.

In the second psychometric evaluation, researchers specifically examined parents with subclinical or clinical levels of anxiety (and no other psychological disorders) and their children. Within this sample, the Overinvolvement scale was again positively correlated with the APQ Positive Parenting scale. However, significant associations were

not found between the Overinvolvement scale and the APQ Involvement scale, APQ Poor Involvement scale, parent anxiety, and child anxiety. There were also significant differences between groups of anxiety disordered children versus non-anxiety disordered children (as per parent and child diagnostic interview) for the PAKRS-PR total score and Overinvolvement subscale. This highlights how parenting may function differently depending on child symptomology.

#### **Contextual Parenting**

In examining parenting, it must be noted that culture and child characteristics, among other factors, can influence parenting behaviors as well as the impact parenting has on children. Many studies have identified cultural differences in parenting. If a child is parented in a way that defies cultural expectations, the impact of those behaviors may be different than when those behaviors are expected. One well-known example of cultural expectations in parenting is "tiger parenting" (i.e., authoritarian parenting) in Chinese parents (Chua, 2011). Kim et al., (2013) found that the profile for "tiger parenting" was present within a sample of Chinese American parents, but it was less common than the "supportive parenting" profile. Whether this parenting behavior is as common as it is presented, the expectation that it is common may impact children differently than children without this expectation.

Similar to cultural expectations, there are also gender expectations with regard to parenting. Mothers are reported to be more caring (Parker et al., 1979), controlling (Parker et al., 1979), and actively involved in the lives of their female children (Essau et al., 2009). When fathers take on the roles typically ascribed to mothers, this may also impact child outcomes.

Parenting behaviors should also be considered in the context of child characteristics. While much research focuses on the effect of parenting on child outcomes, parenting is thought to be a bidirectional relationship in which child characteristics also influence the way parents parent. Child temperament is a common example of how a parent may change their behaviors to accommodate his/her child (Davis et al., 2015). Child age also impacts what normative parenting may look like. As a child enters middle childhood, there is an expectation for increased autonomy-granting as the child seeks independence. While parent characteristics may impact the likelihood of changes in parenting based on child factors, these child characteristics highlight the bidirectional nature of parenting.

#### **Parenting Across Development**

There is a debate on whether early experiences of parenting or the accumulation of parenting experiences have the largest impact on child outcomes (McLeod et al., 2007). This is hard to establish as studies of children during early childhood focus on observational methods and different types of symptoms (e.g., shyness versus anxiety; Möller et al., 2016).

Parenting profiles also change from early adolescence to emerging adulthood (Kim et al., 2013). Protection may serve an important role in early childhood development, but a parent must begin to allow for autonomy and self-regulation for continued child development (George & Solomon, 1989). Given the limited research on parenting during middle childhood and early adolescence, it is vital to expand the literature on the effects of overprotection and overcontrol during this developmental time. These parenting behaviors may be especially important during this period due to increased independence. This period of development is also characterized by significant

changes in social, emotional, and physical development as well as marked increases in internalizing symptoms, including anxiety (Davis et al., 2015).

#### **Child Anxiety**

Anxiety disorders are some of the most common types of psychological disorders, impacting 31.2% of people across the United States (National Comorbidity Survey, 2017). Anxiety disorders in early childhood are associated with later development of major depressive disorder, substance use, and educational difficulties in early adulthood (Woodward & Fergusson, 2001). In the United States, only about 18% of the over 23,000,000 children with anxiety disorders receive treatment despite these negative ramifications (Higa-McMillan et al., 2014). Thus, it is imperative to further the study of anxiety during middle childhood and early adolescence. This research may lead to improvements in identification of at-risk children and streamlined treatment options.

The etiology of childhood anxiety is a complex interaction of factors. The Developmental Model of Child Anxiety (Ginsburg & Schlossberg, 2002) incorporates these factors and more into a complex theoretical model, wherein parental and child factors (e.g., temperament, coping) interact within the context of events and stressors outside of external stressors. With regard to parenting, the model cites "anxietyenhancing" parenting behaviors that are impacted by their personal psychopathology and responses to these symptoms. These parenting behaviors are identified as rejection, hostility, low warmth, overcontrol, overprotection, and accommodation. However, studies examining the role of each of these parenting behaviors in childhood anxiety have yielded mixed results (McLeod et al., 2007; Möller et al., 2016).

While most research during middle childhood and early adolescence focuses on the presence of disordered anxiety, the study of anxiety symptoms may be more sensitive to the early stages of developing anxiety disorders. Examining anxiety symptoms within a community sample may provide valuable information about these symptoms during a time when the symptoms increase (Davis et al., 2015).

#### Conclusions

There is still work to be done with regard to better understanding specific parenting behaviors (e.g., overprotection). Given the inconsistent definitions and findings in the literature, a full examination of the utility of our measures is necessary. These inconsistencies may be indicative of a need to improve our theoretical models and/or it may represent limits to our current measurement. While each measure is evaluated based on reliability and validity indices, there are limits in examining each measure individually. In examining how specific items are related to items on different measures of overlapping constructs, it may become clear that these measures are tapping into several constructs. This is evident in the literature on overcontrolling and overprotective parenting, where these terms are used interchangeably with each other. Thus, further examination is warranted targeting current measures of overcontrol and overprotection to understand how these terms are evaluated. Research on overprotection and overcontrol in middle childhood/early adolescence is also critical for better understanding child outcomes, especially child anxiety. As anxiety symptoms increase during this developmental period, studying overprotection and overcontrol during this time is vital.

#### **Current Study**

The purpose of this study was to better disentangle the non-normative forms of control and protection. The goals of this study were to: 1) evaluate the structure of current measures of overprotection and overcontrol; 2) understand how these measures of overprotection and overcontrol align; and 2) identify whether these measures are associated with child anxiety. This study used the Parental Bonding Instrument (PBI), The University of Southern California Parental Overcontrol Scale (USC-POS), and The Parenting Anxious Kids Rating Scale-Parent Report (PAKRS-PR) in a sample of parents of children in middle childhood/early adolescence.

#### Hypotheses

#### **Hypothesis 1**

It was hypothesized that parenting behaviors associated with overprotection and overcontrol would be positively and significantly correlated. It was predicted that scores on the PBI Overprotection scale, USC-POS scale, and PAKRS-PR Overinvolvement scale would be positively and significantly correlated.

#### Hypothesis 2a

It was hypothesized that the factor structures of a CFA for the measure of anxiogenic parenting (PAKRS-PR) would replicate the structures found in the original Exploratory Factor Analysis (EFA; Flessner et al., 2017).

#### Hypothesis 2b

Although there have been no previous factor analyses with this modified version of the PBI, there have been several with different samples (e.g., retrospective report of how the adult was reared) resulting in varying factor structures. It was hypothesized that an EFA of the PBI would yield a factor related to warmth/care, a factor related to overprotection, and a factor related to overcontrol.

#### Hypothesis 2c

Although there have been no factor analyses conducted in the creation of the USC-POS, it was developed as a short measure of overcontrol. It was hypothesized that an EFA of the USC-POS would yield one factor.

#### Hypothesis 3

It was hypothesized that the PBI Overprotection scale, USC-POS Overcontrol scale, and the PAKRS Overinvolvement scale would each be positively correlated with child anxiety (SCARED Total score).

#### Hypothesis 4

It was hypothesized that, an EFA using all items on the PBI Overprotection scale (13 items), USC-POS Overcontrol scale (10 items), and PAKRS-PR Overinvolvement scale (7 items), would yield distinguishing overcontrol from overprotection.

#### Hypothesis 5

It was hypothesized that, if a factor of overprotection emerged from the EFA of all overprotection/overcontrol items (Hypothesis 4), the overprotection factor would have a stronger association with child anxiety symptoms than scores on any of the three previously developed scales (PBI Overprotection scale, USC-POS Overcontrol scale, and PAKRS-PR Overinvolvement scale).

#### CHAPTER III

#### METHOD

#### **Participants**

Two hundred sixty-two parents participated in this study. However, the USC-POS was not completed by 14 participants as the questionnaire was not originally included in data collection. Thus, all analyses involving the USC-POS had 248 participants. Parents were 18 years old or older, had at least one child between the ages of 8 and 14 years old, were fluent in the English language, and were United States residents. Families were recruited via electronic recruitment including social media, list serves, Amazon's Mechanical Turk (MTurk), and Qualtrics Panels.

Parents were between the ages of 26 and 59 (M = 39.57, SD = 6.92). Child ages ranged from 8 to 14 years (M = 11.61, SD = 1.94). Parents were primarily female (97.7%), biological parents (95%), white (79%), and married (66.8%). There were slightly more female children (51.5%) than male children (48.1%). Table 2 further summarizes the demographic information of families in the sample.

#### Materials

#### Informed Consent

All parents were presented with an informed consent and were required to select that they "agree[d]" before they were able to participate in the study. The consent included the risks and benefits of participating in this study.

#### **Demographic Questionnaire**

A demographic questionnaire was administered to all participants in order to collect information on state of residence, age, ethnicity, gender, and family income. The questionnaire also contained demographic questions related to their children such as child age and gender. This information was used to describe the sample.

#### Parental Bonding Instrument Modification (PBI; Parker et al., 1979)

The PBI is a 25-item measure of parenting behaviors originally designed as an adult retrospective report of memories of parenting (Parker et al., 1979). For the purposes of this study and as per previous studies (Kendler et al., 2000; Parker, 1981), the PBI was modified for use as a parent report of current parenting. Items were rated on a 4-point Likert-type scale identifying how much the parent's behavior matched the behavior described in the item (*very like* to *very unlike* them). The original factor structure has two scales: Care and Overprotection (Parker et al., 1979). The Care scale has high reliability (Cronbach's  $\alpha = .90$ ) and the Overprotection scale has lower reliability (Cronbach's  $\alpha = .67$  in the current sample.

# The University of Southern California Parental Overcontrol Scale (USC-POS; Borelli & Margolin, 2013)

The USC-POS is a 10-item measure of overcontrolling parenting behaviors. Questions are on a 5-point Likert-type scale from *not at all descriptive* to *extremely descriptive*. The total score ranges from 0 to 40 and has high internal consistency (Cronbach's  $\alpha = .74-.81$ ; Borelli & Margolin, 2015). Higher scores indicate higher levels of overcontrolling parenting behaviors. The overall Overcontrol score was used as a measure of overcontrol. Cronbach's alpha = .80 in the current sample.

The Parenting Anxious Kids Rating Scale-Parent Report (PAKRS-PR; Flessner et al., 2017)

The PAKRS-PR is a 32-item measure of anxiogenic parenting. Questions are on a 7-point Likert-like scale from *strongly disagree* to *strongly agree*. The total score ranges from 32 to 224 and has high internal consistency (Cronbach's  $\alpha$  = .81-.84; Flessner et al., 2016). Higher scores indicate higher levels of anxiogenic parenting. The 7-item Overinvolvement scale scores range from 7 to 49 with higher scores indicating higher levels of parental overinvolvement. Internal consistency for the Overinvolvement subscale was .77-.83. The Overinvolvement scale score was used as a measure of overinvolvement (a combination of overcontrol and overprotection). Cronbach's alpha = .68 in the current sample.

#### Screen for Child Anxiety Related Emotional Disorders (SCARED; Birmaher et al., 1997)

The SCARED is a 41-item parent-report measure of childhood anxiety symptoms. Items are rated on a three-point Likert scale from *not true or hardly ever true* to *very true or often true*. The total score ranges from 0 to 82 and has high internal consistency (Cronbach's  $\alpha$  = .90). Internal consistency of subscales has varied (Cronbach's  $\alpha$  = .78-.87; Birmaher et al., 1999). Higher scores indicate higher levels of child anxiety symptoms. The parent-report SCARED scores (subscale and total) are significantly correlated with child-report SCARED scores (Birmaher et al., 1999). Child anxiety was measured via the SCARED total score. Cronbach's alpha = .96 for the current sample.

## Procedure

The Oklahoma State University Institutional Review Board (IRB) approved this study prior to recruitment of participants. Participants were recruited via online recruitment methods (e.g., Qualtrics Panels) and were compensated for participation. Survey completion took approximately 30 minutes.

#### CHAPTER IV

#### RESULTS

#### **Missing Data**

List-wise deletion was utilized for cases in which there were >5% of items missing while participant mean values were calculated and inserted for cases in which there were  $\leq$  5% of items missing.

#### **Descriptive Statistics**

Means, standard deviations, and ranges were calculated for each scale. For the PBI Overprotection scale, scores ranged from 1 to 29 (M = 11.61, SD = 4.79). For the USC-POS Overcontrol scale, scores ranged from 0 to 32 (M = 9.23, SD = 6.61). For the PAKRS-PR Overinvolvement scale, scores ranged from 16 to 43 (M = 31.39, SD = 6.08). For the SCARED Total score, scores ranged from 0 to 71 (M = 13.56, SD = 13.62). Approximately 15% of the sample fell into the clinical range (Total score  $\ge 25$ ). All measures showed sufficient range and variability.

#### **Bivariate Correlations**

Correlation analyses calculated for the PBI Overprotection scale, USC-POS Overcontrol scale, and PAKRS-PR Overinvolvement scale. The PBI Overprotection scale was significantly and positively correlated with both the USC-POS Overcontrol scale and the PAKRS-PR Overinvolvement scale, as hypothesized. The USC-Overcontrol scale was, contrary to hypotheses, not correlated with the PAKRS-PR Overinvolvement scale. See Table 6.

#### **Confirmatory Factor Analysis**

In order to test whether the factor structure from the original study EFA on the PAKRS-PR (see Flessner et al., 2017) would demonstrate good fit, a CFA was conducted. The Chi-square test was significant ( $\chi 2(454) = 1165.74$ , p < .001) and the model did not fit well within this sample according to fit indices (CFI = .67; TLI = .64; RMSEA = .08).

#### **Exploratory Factor Analyses**

An EFA utilizing principal axis factoring (PAF) was conducted for the 25-item PBI to test the hypothesis that the factor structure would lead to 3 factors (Care, Overprotection, and Overcontrol). The Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy was .81, which is considered meritorious (Hutcheson & Sofroniou, 1999). Bartlett's Test of Sphericity was also adequate ( $\chi 2(300) = 1920.39, p < .001$ ). Five eigenvalues emerged over 1 but the scree plot displayed ambiguity. A parallel analysis (Patil et al., 2017) was also conducted, which supported retaining 3 factors. The Promax rotation was selected, allowing factors to correlate. Factor 1 explained 21.55% of the variance, Factor 2 explained 10.74% of the variance, and Factor 3 explained 9.56% of the variance. All items correlated with at least one other item at .3 or above, which indicates that no items should be immediately dropped. No items were correlated above .8, which demonstrates reduced risk of multicollinearity. Factor 1 ("Care") has 10 items and alpha level was not improved by deletion of any items (Cronbach's  $\alpha = .85, M = 25.28, SD =$ 4.45). Factor 2 ("Autonomy") has 6 items and alpha level was not improved by deletion of any items (Cronbach's  $\alpha = .71$ , M = 5.87, SD = 2.99). Factor 2 ("Overprotection") has 5 items and alpha level would not be improved by deletion of any items (Cronbach's  $\alpha = .67$ , M = 5.39, SD = 3.07). See Table 3.

Similarly, an EFA utilizing PAF was conducted for the 10-item USC-POS. Again, Promax rotation was selected as all items were selected to represent overcontrol. The KMO Measure of Sampling Adequacy was .86, which is considered meritorious (Hutcheson & Sofroniou, 1999). Bartlett's Test of Sphericity was also adequate ( $\chi 2(45) =$ 701.64, p < .001). Two factors emerged with eigenvalues greater than 1, the scree plot showed a point of inflection indicative of two factors, and parallel analysis further supported a two-factor solution. Factor 1 ("Love Withdrawal") explained 38.47% of the variance and Factor 2 ("Control") explained an additional 13.89% of the variance. One item ("I encourage my child to be curious, to explore, and to question things") was not correlated with any other items above .3, suggesting possible elimination. Three items were dropped due to high factor loadings on both factors. The 2 factors were correlated at .57. Factor 1 included 4 items and alpha level was not improved by deletion of any items (Cronbach's  $\alpha = .84$ , M = 2.68, SD = 3.43). Factor 2 included 3 items and alpha level was not improved by deletion of any items (Cronbach's  $\alpha = .58$ , M = 4.23, SD = 2.76). See Table 4.

Each item on the PBI Overprotection scale, USC-POS Overcontrol scale, and PAKRS-PR Overinvolvement scale was then transformed using *z*-score transformation. The same methods from the previous EFAs were then applied for the single EFA of the PBI Overprotection scale, USC-POS Overcontrol scale, and PAKRS-PR Overinvolvement scale. KMO Measure of Sampling Adequacy was .76, which is

considered middling (Hutcheson & Sofroniou, 1999). Bartlett's Test of Sphericity was also adequate ( $\chi 2(435) = 2046.59$ , p < .001). Nine eigenvalues were above 1. However, the scree plot and parallel analysis suggested retaining 4 factors. Factor 1 explained 16.05% of the variance, Factor 2 explained 10.80% of the variance, Factor 3 explained 8.70% of the variance, and Factor 4 explained 5.89% of the variance. Nine items were dropped due to insufficient loadings. Factor 1 ("Love Withdrawal") was 7 items (Cronbach's  $\alpha = .83$ , M = -.05, SD = 4.88). Cronbach's  $\alpha$  increased to .84 without one item ("I do not allow my child to get angry with me"). However, this is not a significant increase. Factor 2 ("Overinvolvement") was 5 items and alpha level was not improved by deletion of any items (Cronbach's  $\alpha = .64$ , M = .00, SD = 3.19). Factor 3 ("Autonomy") was 6 items and alpha level was not improved by deletion of items (Cronbach's  $\alpha = .72$ , M = .00, SD = 3.87). Factor 4 ("Overprotection") was 3 items and alpha level was not improved by deletion of items (Cronbach's  $\alpha = .63$ , M = .00, SD = 2.27). See Table 5.

#### **Bivariate Correlations and Significance Testing**

In order to test the hypothesis whether the newly created factor of overprotection (using items from all three of the measures) would have a stronger association with child anxiety than the individual measures, Pearson product-moment correlations were calculated for the original scales (PBI Overprotection scale, USC-POS scale, and PAKRS-PR Overinvolvement scale), the Overprotection scale developed from the final EFA, and child anxiety (SCARED Total score). The newly created Overprotection scale was positively correlated with the PBI, but no other scales. The PBI Overprotection scale and the USC-POS Overcontrol scale were both significantly and positively correlated with SCARED Total score. However, the PAKRS-PR Overinvolvement scale and the newly created Overprotection scale were not significantly correlated with the SCARED Total score. The associations between the PBI Overprotection scale and SCARED Total score (r = .25, 95% CI [.13-.36]) and the USC-POS Overcontrol scale and the SCARED Total score (r = .36, 95% CI [.25-.46]) were not significantly different, as indicated by their overlapping confidence intervals. See Table 6.

#### CHAPTER V

#### DISCUSSION

The current study examined multiple measures of maladaptive parenting typically associated with child anxiety. The sample consisted of parents of children in middle childhood/early adolescence, which is a time of increased autonomy-seeking. Parents demonstrated a wide range of parenting behaviors and children experienced varying levels of anxiety.

In examining the association between constructs prior to factor analyses, some findings supported hypotheses. As replicates previous findings (Borelli et al., 2015), the PBI Overprotection scale was positively associated with the USC-POS Overcontrol scale. Additionally, the PBI Overprotection scale was positively associated with the PAKRS-PR Overinvolvement scale. However, contrary to hypotheses, the USC-POS Overcontrol scale and the PAKRS-PR Overinvolvement scale were not found to be associated. These results may be indicative of more distinction between constructs of overinvolvement and overcontrol, as opposed to the more blended construct of overprotection.

As the original factor structure of the PAKRS-PR (Flessner et al., 2017) did not fit our sample, additional research with a larger sample size may be warranted to further evaluate whether the original factor structure is generalizable.

Regarding the PBI, factors of Care, Autonomy, and Overprotection emerged in our sample. All comparisons made to previous PBI factor analyses are based on individuals retrospectively rating how they were reared.

Factor 1 ("Care") was highly similar to the Care scale on the original, 2-factor model Parker et al. (1979) and the Care scale from Qadir et al. (2005). However, 2 items ("Made me [my child] feel that I [he/she] wasn't wanted" and "Could make me [my child] feel better when I [he/she] was upset"), were under our cutoff for inclusion in the factor. The Care scale, including most of the original items, is consistently found in research on the psychometric properties of the PBI, indicating a high level of stability in this construct.

Factor 2 ("Autonomy") includes the same items as Uji and colleague's (2006) Autonomy scale. Our factor is also similar to the Autonomy scale identified by Muhammad and colleagues (2014). However, one item ("Let me [my child] go out as often as I [he/she] wanted") was not included in their factor. All items from our Autonomy factor originally loaded onto the Overprotection scale from the original model (Parker et al., 1979). However, several other items loaded onto a separate factor, indicating multiple constructs. As noted above, the PBI has frequently been found to have 3 to 4 factors although there has been inconsistency in the specific items that load onto each factor. CFA may be a helpful tool for further clarifying this structure.

Factor 3 ("Overprotection") aligned well with Muhammad and colleagues' (2014) Overprotection scale except ("Could make me [my child] feel better when I [he/she] am upset") was not included in their factor and ("Invaded my [my child's] privacy") was not included in ours. All of the items in our Overprotection factor were items from the

Overprotection scale of the original model (Parker et al., 1979). While one question specifically addresses overprotection ("Was overprotective of my child"), other items (e.g., "Tried to control everything my child did" and "Tried to make my child feel dependent on me") do not address components of protection from harm and appear to be more closely relate to the theoretical definition of overcontrol (see Table 1). The lower reliability of this scale may be partially a function of combining these theoretically different constructs. Although a 3-factor structure was hypothesized, the hypothesis that overprotection and overcontrol would be distinguished from one another was not supported.

Regarding the USC-POS, scales of Overcontrol and Love Withdrawal emerged. Factor 1 ("Love Withdrawal") items were related to negative attitude toward child and negative attributions toward child actions (e.g., "I am less friendly when my child doesn't see things my way" and "I think my child disobeys me just to upset me"). Factor 2 ("Overcontrol") items relate to restricting what the child is allowed to do without direct implication of protection from harm (e.g., "I do not allow my child to get angry with me"). However, this scale also had lower reliability. As this scale was created to narrowly assess overcontrol, multiple factors were unexpected. Additional research (e.g., CFA) may be beneficial for further evaluating the structure of the scale.

Regarding the factor structure of all 30 items from the PBI-Overprotection scale, USC-POS Overcontrol scale, and PAKRS-PR Overinvolvement scale, the identified factors did not contain items from multiple measures. This suggests that each of these measures is tapping into different dimensions with little overlap between them.

Factor 1 ("Love Withdrawal") included most of the same items as the Love Withdrawal scale from the USC-POS EFA. However, three items were added including an item ("I believe that talking with my child about his/her worries will only make him/her more upset") that theoretically appears to be more closely related to overprotection.

Factor 2 ("Overinvolvement") includes only items from the PAKRS-PR Overinvolvement scale and represents a need to be involved in a child's activities to an excessive/non-normative degree (e.g., "In comparison to parents of my child's peers, I ask my child to check-in with me frequently"). This construct appears to theoretically distinctive with the focus of items being the parent's attention and involvement to the child. The PAKRS-PR may also operate differently than other parenting measures due to the self-comparison component of several questions. In asking the parent to consider what is typical for parents of children their child's age, this measure may also be less sensitive to changes as a function of development than the other measures.

Factor 3 ("Autonomy") consisted of all of the same items as the Autonomy factor developed from the PBI EFA. Thus, not only does Autonomy emerge in a large number of EFAs on the PBI, it also displays as a distinct factor amongst measures of overprotection and overcontrol.

Factor 4 ("Overprotection") consisted of 3 of the 5 items included in the Overprotection scale developed from the PBI EFA. As with the PBI EFA, this scale demonstrated lower reliability and does not necessarily map onto the theoretical definitions of overprotection or overcontrol independently. However, this will be referred

to as the Overprotection scale throughout the remainder of the document to be consistent with terminology across relevant studies of the PBI.

Despite examining a wide range of items related to overcontrol and overprotection together, results did not yield a clear distinction between the constructs. However, few items specifically address a component of protection of harm. Overprotective parents may also act in a way that is deemed to be overcontrolling when the items present ambiguous intentions (e.g., "Let my child dress any way he/she wanted"). Similarly, a parent with a high need for control may endorse these items in a similar fashion. Despite these results, it may be possible to differentiate between overcontrol and overprotection. Developing items that tap into protection from harm may provide further differentiation between constructs.

While the newly created Overprotection scale was not linked to child anxiety, both Overcontrol and Overprotection (via PBI Overprotection scale) were linked to child anxiety, and to the same degree. Based on past research and theory noted above, as well as the results of the current study, parenting behaviors and child anxiety are related. However, the distinction between parenting constructs is still unclear and the pathways to child anxiety yet to be fully explored.

#### **Clinical Implications**

The prevalence of child anxiety is substantial and warrants continued research to provide support to families. This is evident by the 15% of participants whose children exceeded the cutoff score for significant anxiety. Assessment of parenting behaviors that may be maintaining anxiety symptoms could aid in targeted treatment. Although the impact of overcontrol and overprotection may sometimes be similar on the child,

understanding the differences between these parenting behaviors may relate to familysystems level improvements. The differentiation between overprotection and overcontrol could point to different treatment approaches that better engage parents, impact the type of support that the parent may need, and enhance the efficacy of treatment. For example, it may be useful to identify if a parent is engaging in unhelpful parenting behaviors because they are worried about harm coming to their child or because they require a high level of control. In the case of fear of harm, a parent's anxiety can be addressed, at least to the extent that it no longer interferes with the child's functioning.

#### **Limitations and Strengths**

The results of this study should be considered in light of its strengths and limitations. This study utilizes a single reporter though multi-informant assessment is advocated for in the assessment of child symptomology (Achenbach et al., 1987). Childreport of parenting behavior may provide additional insight into how these behaviors are perceived and whether intentionality (e.g., protection) is recognizable to children. Additionally, the majority of parents were mothers, white, and married. A more diverse sample would be beneficial for generalizing results. A larger sample size would have provided increased power for additional analyses and enhance comparison across groups.

This study also demonstrates several strengths. Measures of overlapping constructs were assessed in one sample, allowing for examination of different dimensions of these constructs. Another strength is the examination of parenting behaviors in a sample of parents of children in middle childhood/early adolescence. This is one of the few studies to focus on this developmental stage. Since this is a time of increased

autonomy-seeking and increasing rates of anxiety symptoms, this is a key time to examine these links.

#### **Future Directions for Research**

There are several avenues for further research. One avenue is continued examination of the psychometric properties of parenting measures. For example, utilizing CFA for evaluating the fit of the current factor structures is warranted. It is clear that there are inconsistencies in the factor structures for the measures associated with overprotection and overcontrol included in this study. Additionally, the development of questionnaire items that address components of protection from harm may be beneficial for distinguishing overprotection from overcontrol.

Additionally, in order to understand the pathways contributing to child anxiety, longitudinal research is imperative. As it is unclear whether parenting behaviors have a greater impact on children at different ages, longitudinal research may be able to further clarify this.

Within a clinical context, these measures may be used pre- and post- anxiety treatment to conceptualize family-level changes that may impact therapeutic outcomes. Further examination should also examine anxiety in the context of high but non-clinical levels of anxiety. Thus, early interventions may be identified, and the impact of these parenting behaviors may be further examined.

Inclusion of parental psychopathology, personality dimensions such as need for control, and other parental factors in research may be especially fruitful. As has been established in the literature, parental psychopathology, including anxiety, is significantly related to how a parent parents. Further examination of these associations is important.

#### Conclusion

Despite theoretical differences between overcontrol and overprotection, overprotection is not easily separated as its own distinct construct within our current measures of parenting. The results of this study indicate that factor structures of current measures of parenting may benefit from additional research. Additional items specifically addressing protection from harm are needed to parcel apart overprotection from overcontrol. Further, the results of this study further support the links between overprotection, overcontrol, and child anxiety.

This research is a step toward improving the utility of current measures of parenting and ensuring their clinical relevance. Results of future research may lead to actionable change in our assessment of child anxiety and/or our treatment targets. Family-level assessment and treatment in the context of child anxiety treatment may help to support the long-term mental health of children.

#### REFERENCES

Badahdah, A., & Le, K. T. (2015). Parenting young Arab children: Psychometric properties of an adapted Arabic brief version of the Alabama Parenting Questionnaire. *Child Psychiatry & Human Development, 47,* 486-493. doi:10.1007/s10578-015-0581-8

- Barber, B. K. (1996). Parental psychological control: Revisiting a neglected construct. *Child Development*, 67(6), 3296-3319. doi: 10.1111/j.1467-8624.1996.tb01915.x
- Barber, B. K., & Harmon, E. L. (2002). Violating the self: Parental psychological control of children and adolescents. In B. K. Barber (Ed.), *Intrusive parenting: How psychological control affects children and adolescents* (pp. 15-52). Washington, DC, US: American Psychological Association.
- Barber, B. Olsen, J. E., & Shagle, S. C. (1994). Associations between parental psychological and behavioral control and youth internalized and externalized behaviors. *Child Development*,65(4), 1120-1136. doi: 10.1111/j.1467-8624.1994.tb00807.x
- Baumrind, D. (1966). Effects of authoritative parental control on child behavior. *Child Development*, *37*(4), 887-907. doi:10.2307/1126611

Baumrind, D. (2012) Authoritative parenting revisited: History and current status. In R.
E. Lazelere, A. S. Morris, & A. W. Harrist (Eds.), *Authoritative parenting: Synthesizing nurturance and discipline for optimal child development.*Washington, DC: American Psychological Association.

- Baumrind, D. & Black, A. E. (1967). Socialization practices associated with dimensions of competence in preschool boys and girls. *Child Development*, *38*(2), 291-327. doi:10.2307/1127295
- Becker, W. C. (1964). Consequences of different kinds of parental discipline. In M. L. Hoffman & L. W. Hoffman. *Review of child development research*. Russell Sage Foundation.
- Birmaher, B., Khetarpal, S., Brent, D., Cully, M., Balach, L., Kaufman, J., & Neer, S. M. (1997). The Screen for Child Anxiety Related Emotional Disorders (SCARED):
  Scale construction and psychometric characteristics. *Journal of the American Academy of Child & Adolescent Psychiatry*, *36*(4), 545–553.
  doi:10.1097/00004583-199704000-00018
- Birmaher, B., Brent, D. A., Chiappetta, L., Bridge, J., Monga, S., & Baugher, M. (1999).
  Psychometric properties of the Screen for Child Anxiety Related Emotional
  Disorders (SCARED): A replication study. *Journal of the American Academy of Child & Adolescent Psychiatry*, 38(10), 1230–1236. doi:10.1097/00004583199910000-00011
- Borelli, J. L., Hong, K., Rasmussen, H. F., & Smiley, P. A. (2017). Reflective functioning, physiological reactivity, and overcontrol in mothers: Links with school-aged children's reflective functioning. *Developmental Psychology*, 53, 1680-1693. doi: 10.1037/dev0000371

Borelli, J. L., & Margolin, G. (2013). USC-Overcontrol Scale. Unpublished Manuscript.

Borelli, J. L., Margolin, G., & Rasmussen, H. F. (2015). Parental overcontrol as a mechanism explaining the longitudinal association between parent and child anxiety. *Journal of Child and Family Studies*, 24(6), 1559-1574. doi:10.1007/s10826-014-9960-1

Castro, J., Toro, J., van der Ende, J., & Arrindell, W. A. (1993). Exploring the feasibility of assessing perceived parental rearing styles in Spanish children with the EMBU. *International Journal of Social Psychiatry*, *39*(1), 47–57. doi:10.1177/002076409303900105

- Chua, A. (2011). Battle hymn of the tiger mother. New York, NY: Penguin Press.
- Clarke, K., Cooper, P., & Creswell, C. (2013). The Parental Overprotection Scale:
  Associations with child and parental anxiety. *Journal of Affective Disorders*, 151, 618-624. doi: 10.1016/j.jad.2013.07.007
- Davis, S., Votruba Drzal, E., & Silk, J. S. (2015). Trajectories of internalizing symptoms from early childhood to adolescence: Associations with temperament and parenting. *Social Development*, 24, 501-520. doi:10.1111/sode.12105
- Duggan, C., Sham, P., Minne, C., Lee, A., & Murray, R. (1998). Quality of parenting and vulnerability to depression: Results from a family study. *Psychological Medicine*, 28, 185-191. doi:10.1017/s0033291797006016

Edwards, S. L., Rapee, R. M., & Kennedy, S. (2010). Prediction of anxiety symptoms in preschool aged children: Examination of maternal and paternal perspectives. *Journal of Child Psychology and Psychiatry*, 51(3), 313-321. doi: 10.1111/j.1469-7610.2009.02160.x

- Essau, C. A., Sasagawa, M. A., & Frick, P. J. (2006). Psychometric properties of the Alabama Parenting Questionnaire. *Journal of Child and Family Studies*, *15(5)*, 597-616. doi:10.1007/s10826-006-9036-y
- Feng, X., Shaw, D. S., & Moilanen, K. L. (2010). Parental negative control moderates the shyness emotion regulation pathway to school-age internalizing symptoms. *Journal of Abnormal Child Psychology*, 39, 425-436. doi: 10.1007/s10802-010-9469-z
- Flessner, C. A., Murphy, Y. E., Brennan, E. & D'Auria, A. (2017). The Parenting Anxious Kids Rating Scale-Parent Report (PAKRS-PR): Initial scale development and psychometric properties. *Child Psychiatry and Human Development*, 48, 651-667. doi: 10.1007/s10578-016-0688-6
- Frick, P. J. (1991). The Alabama Parenting Questionnaire. Unpublished rating scale, University of Alabama.
- George, C., & Solomon, J. (1989). The caregiving system: A behavioral systems approach to parenting. In J. Cassidy & P. R. Shaver. *Handbook of attachment: Theory, research, and clinical application (2<sup>nd</sup> Edition)*. New York, NY: Guilford Press.
- Ghandour, R. M., Sherman, L. J., Vladutiu, C. J., Ali, M. M., Lynch, S. E., Bitsko, R. H., & Blumberg, S. J. (2019). Prevalence and treatment of depression, anxiety, and conduct problems in US children. *The Journal of Pediatrics*, 206, 256–267. doi:10.1016/j.jpeds.2018.09.021

- Ginsburg, G. S., & Schlossberg, M. C. (2002). Family-based treatment of childhood anxiety disorders. *International Review of Psychiatry*, 14(2), 143–154. doi:10.1080/09540260220132662
- Greco, L. A. & Morris, T. L. (2002). Paternal child-rearing style and child social anxiety: Investigation of child perceptions and actual father behavior. *Journal of Psychopathologyand Behavioral Assessment, 24*(4), 259-267. doi:10.1023/a:1020779000183
- Grolnick, W. S. & Pomerantz, E. M. (2009). Issues and challenges in studying parental control: Toward a new conceptualization. *Child Development Perspectives*, 3(3), 165-170. doi:10.1111/j.1750-8606.2009.00099.x
- Gryczkowski, M., Jordan, S. S., Mercer, S. H. (2010). Differential relations between mothers' and fathers' parenting practices and child externalizing behavior. *Journal of Child and Family Studies, 19*, 539-546. doi:10.1007/s10826-009-9326-2
- Higa-McMillan, C. K., Francis, S. E., & Chorpita, B. F. (2014). Evidence base update: 50 years of research on treatment for child and adolescent anxiety. *Journal of Clinical Child and Adolescent Psychology*, *45*(2), 91-113. doi: 10.1080/15374416.2015.1046177

Hutcheson, G., & Sofroniou, N. (1999). The multivariate social scientist. London: Sage.

Kagan, J. & Moss, H. A. (1962). Birth to maturity: A study in psychological development. New Haven, London: Yale University Press.

- Kakihara, F. & Tilton-Weaver, L. (2009). Adolescents' interpretations of parental control: Differentiated by domain and types of control. *Child Development*, 80(6), 1722-1738. doi:10.1111/j.1467-8624.2009.01364.
- Kendler, K. S. (1996). Parenting: A genetic-epidemiologic perspective. American Journal of Psychiatry, 153, 11-20. doi: 10.1176/ajp.153.1.11

Kendler, K. S., Myers, J., & Prescott, C. A. (2000) Parenting and adult mood, anxiety and substance use disorders in female twins: an epidemiological, multi-informant, retrospective study. *Psychological Medicine*, *30*, 281-294. doi: 10.1017/s0033291799001889

- Kim, S. Y., Wang, Y., Orozco-Lapray, D., Shen, Y., & Murtuza, M. (2013). Does "tiger parenting" exist? Parenting profiles of Chinese Americans and adolescent developmental outcomes. *Asian American Journal of Psychology*, 4(1), 7-18. doi: 10.1037/a0030612
- Koehn, A. J., & Kerns, K. A. (2018). Parent-child attachment: Meta-analysis of associations with parenting behaviors in middle childhood and adolescence. *Attachment and Human Development, 20*(4), 378-405. doi: 10.1080/14616734.2017.1408131
- Levy, D. M. (1938). Maternal overprotection. Psychiatry, 1(4), 582-589.
- Liu, J., Li, L., & Fang, F. (2010). Psychometric properties of the Chinese version of the Parental Bonding Instrument. *International Journal of Nursing Studies*, 48, 582-589. doi:10.1016/j.ijnurstu.2010.10.008

- Mabbe, E., Vansteenkiste, M., Brenning, K., De Pauw, S., Beyers, W., & Soenens, B. (2019). The moderating role of adolescent personality in associations between psychologically controlling parenting and problem behaviors: A longitudinal examination at the level of within-person change. *Developmental Psychology*. doi: 10.1037/dev0000802
- McLeod, B. D., Weisz, J. R., & Wood, J. J. (2007) Examining the association between parenting and childhood depression: A meta-analysis. *Clinical Psychology Review*, 27, 986-1003. doi: 10.1016/j.cpr.2007.03.001
- Mills, R. & Rubin, K. (1998). Are behavioural and psychological control both
   differentially associated with childhood aggression and social withdrawal.
   *Canadian Journal of Behavioural Science*, 30(2), 132-136. doi:10.1037/h0085803
- Mohr, S., Preisig, M., Fenton, B.T., & Ferrero, F. (1998). Validation of the French version of the Parental Bonding Instrument in adults. *Personality and Individual Differences, 26,* 1065-1074. doi: 10.1016/s0191-8869(98)00210-4
- Möller, E. L., Nikolić, M., Majdandžić, M., & Bögels, S. M. (2016). Associations between maternal and paternal parenting behaviors, anxiety and its precursors in early childhood: A meta-analysis. *Clinical Psychology Review*, 45, 17–33. doi:10.1016/j.cpr.2016.03.002

Muhammad, N. A., Shamsuddin, K., Omar, K., Shah, S. A., & Mohd Amin, R. (2014).
Validation of the Malay version of the Parental Bonding Instrument among
Malaysian youths using exploratory factor analysis. *The Malaysian journal of medical sciences*, 21(5), 51–59.

- Narita, T., Sato, T., Hirano, S., Gota, M., Sakado, K., & Uehara, T. (1999). Parental child-rearing behavior as measured by the Parental Bonding Instrument in a Japanese population: factor structure and relationship to a lifetime history of depression. *Journal of Affective Disorders*, *57*, 229-234. doi: 10.1016/s0165-0327(99)00071-3
- National Comorbidity Survey, (2017). Lifetime prevalence of DSM-IV/WMH-CIDI disorders by sex and cohort. Retrieved

from: https://www.hcp.med.harvard.edu/ncs/index.php

- Otto, Y., Kolmorgen, K., Sierau, S., Weis, S., von Klitzing, K., & Klein, A. M. (2015). Parenting behaviors of mothers and fathers of preschool age children with internalizing disorders. *Journal of Child and Family Studies, 25,* 381-395. doi:10.1007/s10826-015-0242-3
- Parker, G., Tupling, H. & Brown, L. B. (1979), A Parental Bonding Instrument. *British Journal of Medical Psychology*, *52*, 1–10. doi:10.1111/j.2044-8341.1979.tb02487.x
- Patil, V. H., Singh, S. S., Mishra, S., & Donavan, D.T. (2017). Parallel analysis engine to aid in determining number of factors to retain using R [Computer software], available from https://analytics.gonzaga.edu/parallelengine/.

Patterson, G. R. (1982). Coercive family process. Eugene, OR: Castalia

Pinquart, M. (2017) Associations of parenting dimensions and styles with externalizing problems of children and adolescents: An updated meta-analysis. *Developmental Psychology*, 53(5), 873-932. doi: 10.1037/dev0000295

- Qadir, F., Stewart, R., Khan, M., & Prince, M. (2005). The validity of the Parental Bonding Instrument as a measure of maternal bonding among young Pakistani women. *Social Psychiatry and Psychiatric Epidemiology*, *40*, 276-282. doi:10.1007/s00127-005-0887-0
- Putnick, D., Bornstein, M., Hendricks, C., Painter, K., & Suwalsky, J. (2008). Parenting stress, perceived parenting behaviors, and adolescent self-concept in European American families. *Journal of Family Psychology*, 22(5), 752-762. doi: 10.1037/a0013177
- Roe, A. & Siegelman, M. (1963). A parent-child relations questionnaire. *Child Development*, 34, 355-369. doi:10.2307/1126732
- Rork, K.E., & Morris, T.L. (2009). Influence of parenting factors on childhood social anxiety: Direct observation of parental warmth and control. *Child & Family Behavior Therapy*, *31*(3), 220-235. doi: 10.1080/07317100903099274
- Rubin, K., Burgess, K., & Hastings, P. (2002). Stability and social-behavioral consequences of toddlers' inhibited temperament and parenting behaviors. *Child Development*, 73(2), 483-495. doi: 10.1111/1467-8624.00419
- Sabatelli, R. M., & Mazor, A. (1985). Differentiation, individuation, and identity formation: The integration of family system and individual developmental perspectives. *Adolescence*, *20*(79), 619-633.
- Schaefer, E. (1959). A circumplex model for maternal behavior. *Journal of Abnormal* and Social Psychology, 59(2), 226-235. doi:10.1037/h0041114

- Smith, C. (2010). Multiple determinants of parenting: Predicting individual differences in maternal parenting behavior with toddlers. *Parenting: Science and Practice, 10*, 1-17. doi: 10.1080/15295190903014588
- Steinberg, L., Mounts, N. S., Lamborn, S. D., & Dornbusch, S. M. (1990). Authoritative parenting and adolescent adjustment across varied ecological niches. *Journal of Research on Adolescence*, 1(1), 19-36.
- Thomasgard, M. & Metz, W. (1993). Parental overprotection revisited. *Child Psychiatry* and Human Development, 24(2), 67-80. doi: 10.1007/bf02367260
- Uji, M., Tanaka, N., Shono, M., & Kitamura, T. (2006). Factorial structure of the Parental Bonding Instrument (PBI) in Japan: A study of cultural developmental, and gender influences, *Child Psychiatry Human Development*, *37*, 115-132. doi:10.1007/s10578-006-0027-4
- Wilhelm, K., Niven, H., Parker, G., Hadzi-Pavlovic, D. (2004). The stability of the Parental Bonding Instrument over a 20-year period. *Psychological Medicine*, 35, 387-393. doi:10.1017/S0033291704003538.

# APPENDICES

Table 1. Definitions

Construct and Definition	Citation
Control	Circuiton
<i>"intrusiveness</i> , suppression of aggression, control through guilt, parental direction"	Schaefer, 1959
Intrusiveness and directiveness	Smith, 2010, p.6
"parents' pressure, <i>intrusiveness</i> , and dominanceattempts at forcing children to meet demands, solving problems for children, and taking parental rather than child perspective."	Grolnick & Pomerantz, 2009, p. 166-167
Coercive Control	D
<i>intrusive</i> , manipulative, punitive, autonomy undermining, and restrictive	Paterson, 1982
Psychological Control	
"potentially inhibits or <i>intrudes</i> upon psychological development through manipulation and exploitation of the parent-child bond (e.g., love-withdrawal and guilt induction), negative, affect-laden expressions and criticisms (e.g., disappointment and shame), and excessive personal control (e.g., possessiveness, <u>protectiveness</u> )." "parental behaviors that are <i>intrusive</i> and manipulative of children's thoughts, feelings, and attachments to parents."	Barber, 1996, p. 3297; Barber & Harmon, 2002, p. 15
"parental attempts to control behavior by manipulating adolescents' emotions, feelings, thoughts, or ideas, or through the parent-child relationship, applying such techniques as guilt induction, love withdrawal, and excessive shaming "	Kakihara et al., 2009, p. 1722
"control through guilt and instilling persistent anxiety"	Putnick et al., 2008, p. 754-755
"patterns of family interaction that intrude upon or impede the child's individuation process, or the relative degree of psychological distance a child experiences from his or her parents and family."	Sabatelli & Mazor, 1985

"threats to self-esteem, defined as behaviors intended to lower self-esteem of the childdevaluation of the child (statements that devalue or lower the status of the child, e.g., insult, sarcasm, belittling, criticism of character or personality), or nonresponsiveness (failing to acknowledge a signal from the child)."	Mills & Rubin, 1998, p.134
"(1) <i>intrusive</i> , <u>overprotective</u> control; and (2) derisive comments."	Rubin et al., 2002, p. 488
"the absence of 'psychological autonomy.""	Steinberg et al., 1990, p.274
"indirect, covert, <i>intrusive</i> , and aimed at manipulating	Baumrind, 2002, p.
the child's psychological world and personal identity	27 (Citing Barber
induction."	(enting Burber, 1996)
Confrontive Control	,
demanding, firm, and goal-directed	Patterson, 1982
Protection	
"parents who give the child's interests first priority.	Roe & Siegelman,
demonstratively affectionate, may be sushing. They select	1903, p. 337
friends carefully, but will rarely let him visit other homes	
without them. They protect him from other children from	
experiences in which he may suffer disappointment or	
discomfort or injury. They are highly <i>intrusive</i> and expect	
to know all about what he is thinking and experiencing.	
They reward dependency."	
"degree to which the mother rewarded dependent	Kagan, 1962, p. 205
overtures and prevented independent development. Major	
sources of data included (a) unsolicited and unnecessary	
nurturance of the child, (b) consistent reward of the child's	
requests for help and assistance, (c) encouraging the child	
to become dependent on her, (d) overconcern when the	
Overnrotection	
" an overprotective relationship is characterized by a	Thomasgard &
parent who: 1) is highly supervising and vigilant. 2) has	Metz. 1993. p. 68
difficulties with separation from the child, 3) discourages	·· , ·· · , <b>r</b> · · ·
independent behavior and 4) is highly controlling"	
"indicates both love for the child and an inability to treat	Schaefer, 1959
the child as a differentiated individual who has his own	
activities and interests apart from the parent", High	
<u>control</u> , high love	
combination of restrictiveness, warmth, and emotional	Becker, 1964, p. 190
involvement	

"parenting behaviors that restrict a child's exposure to
situations containing perceived threat or harm."
Excessive contact, prolongation of infantile care,
prevention of independent behavior, maternal control

Edwards et al., 2010, p. 314 Levy, 1939

*Note.* Underlining indicates the use of one term (protection or control) being used in the definition of the other (protection or control). Intrusion is italicized to emphasize this characteristic that is found in most definitions.

5 1 0	
Variable	N = 262 (%)
Caregiver Gender	
Male	4 (1.5)
Female	256 (97.7)
Non-Binary	1 (.4)
Other (Not Specified)	1 (.4)
Type of Caregiver	
Biological Parent	249 (95.0)
Step-Parent	7 (2.7)
Adoptive Parent	2 (.8)
Other	4 (1.5)
Caregiver Race/Ethnicity	
White	207 (79.0)
Black/African American	23 (8.8)
Hispanic/Latinx	15 (5.7)
Asian	9 (3.4)
Pacific Islander	1 (.4)
Biracial	7 (2.7)
Annual Household Income	
\$15,000 or less	6 (2.3)
\$15,001 - \$35,000	35 (13.4)
\$35,001 - \$55,000	23 (8.8)
\$55,001 - \$75,000	35 (13.4)
\$75,001 - \$95,000	20 (7.6)
\$95,001 - \$115,000	20 (7.6)
\$115,001 - \$135,000	16 (6.1)
>\$135,001	31 (11.8)
Marital Status	
Married	175 (66.8)
Living with partner	22 (8.4)
Divorced	28 (10.7)
Legally Separated	3 (1.1)

 Table 2. Demographic Information

Widowed	2 (.8)
Single/Never married	32 (12.2)
Child Gender	
Female	135 (51.5)
Male	126 (48.1)

F		Factors	actors	
Items	1	2	3	
Factor 1 – Care				
6. Was affectionate toward my child (R)	.70	05	.07	
4. Seemed emotionally cold to my child	.69	.15	16	
12. Frequently smiled at my child (R)	.69	13	.18	
18. Did not talk with my child very much	.68	.11	12	
11. Enjoyed talking things over with my child (R)	.64	15	1.4	
2. Did not help my child as much as he/she needed	.62	.07	04	
1. Spoke to my child in a warm and friendly voice (R)	.57	16	.06	
24. Did not praise my child	.53	.114	16	
14. Did not seem to understand what my child needed or	.47	.07	11	
5. Appeared to understand my child's problems and	.47	25	.08	
Factor 2 – Autonomy-Granting				
21. Gave my child as much freedom as he/she wanted	.07	.66	02	
22. Let my child go out as often as he/she wanted	.09	.59	08	
7. Liked my child to make his/her own decisions	14	.59	08	
15. Let my child decide things for himself/herself	03	.55	.18	
25. Let my child dress any way he/she pleased	.03	.48	.10	
3. Let my child do the things he/she wanted	22	.41	.01	
Factor 3 – Overprotection				
13. Tended to baby my child (R)	.25	.09	.67	
23. Was overprotective of my child (R)	.24	.16	.62	
9. Tried to control everything my child did (R)	18	.07	.57	
20. Felt my child could not look after himself/herself	13	04	.46	
19. Tried to make my child feel dependent on me (R)	16	12	.44	
No Factor				

# Table 3. Results From an Exploratory Factor Analysis of PBI

8. Did not want my child to grow up (R)	.04	.04	.28	
10. Invaded my privacy (R)	19	.19	.36	
16. Made my child feel that he/she wasn't wanted	.34	.12	30	
17. Could make my child feel better when he/she was	.38	02	.23	
Eigenvalues	5.3	2.68	2.39	
Total percent variance explained by individual factor(s)	21.	10.7	9.56	
α	.85	.71	.67	
Note. The extraction method was principal axis factoring with an oblique (Promax with				

Kaiser Normalization) rotation. Factor loadings over .40 appear in bold. Reverse-scored items are denoted with an (R).

	Fact	tors
Items	1	2
Love Withdrawal		
10. I am less friendly when my child doesn't see things my way	.81	.01
9. When I am disappointed or irritated with my child, I withhold	.81	.04
8. I think my child disobeys me just to upset me	.78	03
5. When my child expresses negative feelings, I am negative in return	.78	01
Control		
7. I expect my child to tell me everything that happens when he/she is		
from home	09	.80
3. I don't think children should be given sexual information	07	.72
2. I do not allow my child to get angry with me	.08	.63
No Factor		
1. I encourage my child to be curious, to explore, and to question	.57	39
4. I believe that talking with my child about his/her worries will only		
make him/her more upset	.49	.32
6. There are lots of ways that I'd like to change my child	.46	.33
Eigenvalues	3.85	1.39
Total percent variance explained by individual factor(s)	38.47	13.89
	0.4	58

Table 4. Results From an Exploratory Factor Analysis of USC-POS

items are denoted with an (R).

	Factors			
Items	1	2	3	4
PBI Overprotection Scale Items				
3. Let my child do the things he/she liked doing	.05	15	.40	.11
7. Liked my child to make his/her own decisions	.00	12	.55	.20
8. Did not want my child to grow up (R)	24	.02	03	.38
9. Tried to control everything my child did (R)	.10	05	.08	.64
10. Invaded my child's privacy (R)	.02	09	.22	.38
13. Tended to baby my child (R)	02	.00	01	.59
15. Let my child decide things for himself/herself	.05	04	.50	.16
19. Tried to make my child feel dependent on me (R)	.26	04	15	.37
20. Felt my child could not look after himself/herself unless				
I was around (R)	.30	01	03	.30
21. Gave my child as much freedom as he/she wanted	05	.16	.79	16
22. Let my child go out as often as he/she wanted	08	.09	.57	11
23. Was overprotective of my child (R)	09	.15	.10	.57
25. Let my child dress any way he/she wanted	.07	.06	.47	.04
PAKRS-PR Overinvolvement Scale Items				
12. I want to be involved in nearly every aspect of my				
life, particularly those that may make his/her worries or				
worse	.04	.55	02	.15
17. In comparison to parents of my child's peers, I like to				
more about what my child is up to (e.g., at school, home,				
peers)	04	.38	.12	.21
20. In comparison to parents of my child's peers, I help my				
to complete tasks, chores, or activities	04	.46	01	03
21. In comparison to parents of my child's peers, I check-in				

 Table 5. Results From an Exploratory Factor Analysis of Items of PBI, PAKRS-PR, and USC-POS

my son/daughter often	13	.65	.02	.02
25. In comparison to parents of my child's peers, I ask my				
to check-in with me frequently	.06	.50	.08	08
27. In comparison to parents of my child's peers, I organize				
of my life around my child	02	.37	04	.00
28. In comparison to parents of my child's peers, I provide				
child with instructions or commands about what he/she	.08	.51	03	07
USC-Overcontrol Scale Items				
1. I encourage my child to be curious, to explore, and to				
things (R)	.24	26	.22	01
2. I do not allow my child to get angry with me	.43	.37	.04	05
3. I don't think children should be given sexual information	.33	.19	02	.00
4. I believe that talking with my child about his/her worries				
make him/her more upset	.60	06	07	06
5. When my child expresses negative feelings, I am				
return	.68	07	03	03
6. There are lots of ways that I'd like to change my child	.61	.04	.11	04
7. I expect my child to tell me everything that happens				
he/she is away from home	.33	.34	18	.19
8. I think my child disobeys me just to upset me	.67	01	01	05
9. When I am disappointed or irritated with my child, I				
affection	.83	03	.07	<b>-</b> .11
10. I am less friendly when my child doesn't see things my	.78	05	.04	08
Eigenvalues	4.81	3.19	2.39	1.79
Total percent variance explained by individual factor(s)	16.0	10.80	8.70	5.89
	83	64	72	.63

Kaiser Normalization) rotation. Factor loadings over .40 appear in bold. Reverse-scored items are denoted with an (R).

Table 6. Zero-order Correlations

Measure	PBI	USC-POS	PAKRS-PR	New	SCARED
	Overprotection	Overcontrol	Overinvolvement	Overprotection	Total
PBI Overprotection					
USC-POS Overcontrol	.34**				
PAKRS-PR Overinvolvement	.13*	.08			
New Overprotection	.55**	.06	04		
SCARED Total	.25**	.36**	05	.01	

*Note:* \* *p* < .05, \*\**p* < .01

#### VITA

Maddison N. Tolliver-Lynn

Candidate for the Degree of

Doctor of Philosophy

# Dissertation: CONTROLLING, PROTECTIVE, OR BOTH: AN EXAMINATION OF PARENTING BEHAVIORS ASSOCIATED WITH CHILD ANXIETY

#### Major Field: PSYCHOLOGY

Biographical:

Education:

Completed the requirements for the Doctor of Philosophy in Psychology at Oklahoma State University, Stillwater, Oklahoma in July, 2021.

Completed the requirements for the Master of Science in Psychology at Oklahoma State University, Stillwater, Oklahoma in 2019.

Completed the requirements for the Bachelor of Arts in Psychology at University of Kansas, Lawrence, Kansas in 2014.

Experience:

Pre-doctoral Psychology Intern, University of Florida Health Science Center Graduate Research Assistant, Oklahoma State University Graduate Teaching Instructor, Dept. of Psychology, Oklahoma State University Graduate Clinician, Psychological Services Center, Oklahoma State University

Professional Memberships:

American Psychological Association Association for Behavioral and Cognitive Therapies