

2010

The Relation between Parental Beliefs about Negative Emotions, Coping Socialization, and Child Anxiety in a Nonclinical Sample

Megan Duffett
University of Windsor

Follow this and additional works at: <https://scholar.uwindsor.ca/etd>

Recommended Citation

Duffett, Megan, "The Relation between Parental Beliefs about Negative Emotions, Coping Socialization, and Child Anxiety in a Nonclinical Sample" (2010). *Electronic Theses and Dissertations*. 28.
<https://scholar.uwindsor.ca/etd/28>

This online database contains the full-text of PhD dissertations and Masters' theses of University of Windsor students from 1954 forward. These documents are made available for personal study and research purposes only, in accordance with the Canadian Copyright Act and the Creative Commons license—CC BY-NC-ND (Attribution, Non-Commercial, No Derivative Works). Under this license, works must always be attributed to the copyright holder (original author), cannot be used for any commercial purposes, and may not be altered. Any other use would require the permission of the copyright holder. Students may inquire about withdrawing their dissertation and/or thesis from this database. For additional inquiries, please contact the repository administrator via email (scholarship@uwindsor.ca) or by telephone at 519-253-3000ext. 3208.

THE RELATION BETWEEN PARENTAL BELIEFS ABOUT NEGATIVE
EMOTIONS, COPING SOCIALIZATION, AND CHILD ANXIETY IN A
NONCLINICAL SAMPLE

By

Megan Irene Duffett

A Thesis
Submitted to the Faculty of Graduate Studies
Through the Department of Psychology
In Partial Fulfillment of the Requirements for
The Degree of Master of Arts at the
University of Windsor

Windsor, Ontario, Canada

2010

© 2010 Megan I. Duffett

DECLARATION OF ORIGINALITY

I hereby certify that I am the sole author of this thesis and that no part of this thesis has been published or submitted for publication.

I certify that, to the best of my knowledge, my thesis does not infringe upon anyone's copyright nor violate any proprietary rights and that any ideas, techniques, quotations, or any other material from the work of other people included in my thesis, published or otherwise, are fully acknowledged in accordance with the standard referencing practices. Furthermore, to the extent that I have included copyrighted material that surpasses the bounds of fair dealing within the meaning of the Canada Copyright Act, I certify that I have obtained a written permission from the copyright owner(s) to include such material(s) in my thesis and have included copies of such copyright clearances to my appendix.

I declare that this is a true copy of my thesis, including any final revisions, as approved by my thesis committee and the Graduate Studies office, and that this thesis has not been submitted for a higher degree to any other University or Institution.

ABSTRACT

The present study examined parents' maladaptive beliefs about anxiety and emotion-related parenting styles (emotion coaching and parental rejection of emotion) as they related to child anxiety and coping socialization. Coping socialization also was explored as a mediator of the relation between parent cognitions and child anxiety. Participants included parents ($n = 58$) of children aged 3 to 12 years, in a nonclinical sample. Parents completed online questionnaires assessing their beliefs about emotions, coping socialization, and anxiety symptoms. Results indicated that parents who reported low emotion coaching and high parental beliefs about anxiety had children with greater anxiety, regardless of parent anxiety. Greater emotion coaching predicted more supportive coping socialization, while greater parental rejection of emotion predicted more unsupportive coping socialization. Unsupportive coping socialization mediated the relation between parental rejection of emotion and levels of child anxiety, but not when accounting for parent anxiety. Implications for clinical interventions and parenting programmes are discussed.

ACKNOWLEDGEMENTS

My sincerest thanks and appreciation are extended to my supervisor, Dr. Kimberley Babb, for her guidance, support, and the knowledge that she shared. I would also like to thank my committee members, Dr. Hakim-Larson and Dr. Barrett, for helping me to think outside the box and to take a different perspective.

I would like to express my gratitude to Val and Alex, for their positivity and making the distance between us seem as small as possible. I also wish to thank Janine and Jess for always listening and laughing. And a special thank you to Nathan, whose continuous support and encouragement has helped me to achieve my goals.

Last, but not least, I would like to thank my family, especially my parents for simply always being the best.

TABLE OF CONTENTS

ABSTRACT.....	iv
ACKNOWLEDGEMENTS.....	v
LIST OF TABLES.....	viii
LIST OF FIGURES.....	ix
CHAPTER	
I. INTRODUCTION.....	1
II. REVIEW OF LITERATURE	
<i>Child Anxiety.....</i>	<i>3</i>
<i>Parental Cognitions and Child Anxiety.....</i>	<i>5</i>
<i>Emotion Socialization and Child Anxiety.....</i>	<i>9</i>
<i>Parental Meta-Emotion Philosophy and Child Anxiety.....</i>	<i>12</i>
<i>Child-Rearing Practices and Child Anxiety.....</i>	<i>17</i>
<i>Coping Socialization.....</i>	<i>22</i>
<i>The Present Study.....</i>	<i>25</i>
<i>Hypotheses.....</i>	<i>25</i>
III. METHODOLOGY	
<i>Participants.....</i>	<i>28</i>
<i>Measures.....</i>	<i>33</i>
<i>Procedure.....</i>	<i>39</i>
IV. RESULTS	
<i>Overview of Data Analyses.....</i>	<i>40</i>
<i>Preliminary Analyses.....</i>	<i>40</i>
<i>Potential Control Variables.....</i>	<i>41</i>
<i>Main Analyses.....</i>	<i>44</i>
V. DISCUSSION	
<i>Parental Cognitive Characteristics and Child Anxiety.....</i>	<i>56</i>
<i>Parental Coping Socialization.....</i>	<i>60</i>
<i>Parental Rejection of Emotion, Coping Socialization and Child Anxiety.....</i>	<i>62</i>
<i>Limitations and Future Directions.....</i>	<i>64</i>
<i>Practical Implications and Conclusions.....</i>	<i>69</i>

APPENDICES

APPENDIX A: Participant Pool Advertisement.....	74
APPENDIX B: Flyer for Daycares.....	75
APPENDIX C: Consent Form.....	76
APPENDIX D: Background Questionnaire.....	80

REFERENCES.....	85
-----------------	----

VITA AUCTORIS.....	104
--------------------	-----

LIST OF TABLES

Table 1	Means and Standard Deviations for the ages of Participants and their Children.....	31
Table 2	Participant Demographic Characteristics.....	32
Table 3	Means and Standard Deviations for All Measures.....	42
Table 4	Zero-order Correlations Between Variables in the Study.....	46
Table 5	Hierarchical Multiple Regression Analyses Predicting Levels of Child Anxiety from Parental Beliefs about Anxiety and Emotion – Related Parenting Styles.....	48
Table 6	Parental Beliefs about Anxiety and Emotion – Related Parenting Styles when Controlling for Parent Anxiety.....	49
Table 7	Hierarchical Multiple Regression Analyses Predicting Supportive and Unsupportive Coping Socialization from Parental Beliefs about Anxiety and Emotion – Related Parenting Styles.....	51
Table 8	Hierarchical Multiple Regression Analyses Predicting Levels of Child Anxiety from Parental Beliefs about Anxiety and Emotion Coaching when Controlling for Parent Anxiety.....	52

LIST OF FIGURES

Figure 1	Path model with standardized coefficients demonstrating that unsupportive coping mediated the relation between parental rejection of negative emotion and child anxiety.....	55
----------	--	----

CHAPTER I

INTRODUCTION

Anxiety is a prominent psychological problem which may be debilitating to a child's well-being. Recently, research has started to focus on parental factors that can contribute to the development and maintenance of children's anxiety. The primary aim of the present study was to examine whether maladaptive parental beliefs about anxiety (where anxiety is believed to be harmful to the child when experienced) interact with parents' emotion-related parenting styles (beliefs about their children's negative emotions) in predicting children's level of anxiety in a nonclinical sample. The secondary purpose was to investigate how parental beliefs about anxiety and emotion-related parenting styles relate to how parents would socialize coping with their children in response to hypothetical emotion-provoking scenarios. The final purpose was to explore whether parental coping socialization mediated the relationship between maladaptive parental beliefs about anxiety and levels of child anxiety.

In order to examine these parental factors, mothers and fathers completed online questionnaires assessing their own feelings of anxiety, maladaptive beliefs about anxiety in their children, the emotion-related parenting styles, coping socialization styles, and levels of child anxiety. Correlations and regressions were conducted to assess whether the parenting variables predicted the outcomes of levels of child anxiety and parental coping socialization styles.

This study improved upon past research because: (1) it explored the relation between parental beliefs about anxiety and levels of child anxiety in a nonclinical sample. (2) The study investigated both positive and negative beliefs about negative emotions in

relation to levels of child anxiety. (3) It explored the interactions of emotion-related parenting styles (emotion coaching and parental rejection of negative emotion) and maladaptive parental beliefs about anxiety in relation to child anxiety and parents coping socialization practices. Interactions between parental cognitions and its relation to child outcome variables have been greatly overlooked in previous research. (4) Finally, the study examined whether coping socialization mediated the relation between parental beliefs about negative emotions and child anxiety. Coping socialization is a parenting behaviour that has not yet been explored in relation to child anxiety.

CHAPTER II

REVIEW OF LITERATURE

Child Anxiety

According to Barlow (2002), anxiety is best described as a future-oriented emotion, where individuals identify events and situations as uncontrollable and unpredictable, perceive situations as threatening or focus on their own emotional distress in situations, and respond with avoidance. There are different types of anxiety disorders (e.g., generalized anxiety, separation anxiety), all sharing the underlying characteristics of fear and avoidance. Anxiety disorders are one of the most prevalent psychological problems in children and adolescents (Bernstein, Borchardt, & Perwien, 1996; Costello, Mustillo, Erkanli, Keeler, & Angold, 2003; Kashani, & Orvaschel, 1990). All individuals experience anxiety in varying degrees, yet pathological levels of anxiety can cause severe impairment in functioning and psychological distress (Albano & Detweiler, 2001).

The prevalence of anxiety has been explored in both clinical and community populations. One study found that of children age 5 to 15 with a clinical diagnosis, 3 to 5% had a primary diagnosis of an anxiety disorder, while 28% had a comorbid diagnosis of anxiety (Ford, Goodman, & Meltzer, 1999). In community samples, researchers have estimated that 10 to 18% of children may meet the diagnostic criteria for an anxiety disorder before reaching adulthood (Achenbach, Howell, McConaughy, & Stanger, 1995; Bolton et al., 2006; Costello, Egger, & Angold, 2005; Costello et al., 1996; Costello et al., 2003; Kashani & Orvaschel, 1988). More recently, a meta-analysis conducted by Cartwright-Hatton, McNicol and Doubleday (2008) examined the prevalence of child anxiety in community and clinical populations between 1992 and 2003, which was the

most current data at the time they published their study. The authors found great variability in prevalence rates, ranging from 2.6%, which resulted from a community sample, to 41.2% in a clinical sample. Field, Cartwright-Hatton, Reynolds, and Creswell (2008) also have suggested that in addition to the observed prevalence of diagnosed child anxiety, many more non-identified children experience anxiety at sub-clinical levels, which may cause impairment in functioning needed for daily activities.

The symptoms associated with clinical levels of anxiety can affect the interpersonal, academic, and psychological aspects of children's daily life (Albano & Detweiler, 2001; Costello et al., 2005; Ford, Goodman, & Meltzer, 2003; Pine, 1997; Wood, 2006). For example, anxious children often avoid peer interactions or refuse to attend school (Albano, Chorpita, & Barlow, 2003), which can affect their overall social and academic competence (e.g., Benjamin, Costello, & Warren, 1990). This is of particular concern, considering that symptoms associated with anxiety can begin as early as the preschool years (Costello et al., 2003; Furniss, Beyer, & Guggenmos, 2006).

Childhood anxiety can have long-term implications for adult mental health, as well. Anxiety that is left untreated may increase in severity (Costello et al., 2003), persist into adulthood, and become stable over time (Dadds et al., 1999; Kim-Cohen et al., 2003; Last, Hanson, & Franco, 1997). Moreover, adults who were diagnosed with anxiety as children have been shown to be at increased risk of developing other disorders, such as depression (Kovacs, Gatsonis, Paulauskas, & Richards, 1989) and substance use problems (Kushner, Sher, & Beitman, 1990). Woodward and Ferguson (2001) conducted a longitudinal study following adolescents into adulthood and found anxiety disorders to be a risk factor for educational problems and problems with daily functioning (e.g., job

performance, leisure activities, interpersonal relationships), in addition to other mental health problems such as increased anxiety, major depression and drug and alcohol abuse. Given that anxiety often has its roots in childhood and can lead to maladaptive outcomes in both children and adults, there is a need to identify factors that contribute to the development and maintenance of childhood anxiety. By knowing these factors, we may help prevent anxiety disorders and increase the effectiveness of treatments for childhood anxiety.

Within the past decade, many anxiety researchers have focused on investigating the relation between parental factors and child anxiety (Field et al., 2008). Children of parents with an anxiety disorder are more likely to be diagnosed with an anxiety disorder than children of parents without an anxiety disorder (Turner, Beidel, & Costello, 1987). Although genetics may account for at least a part of this familial association (e.g., Bolton et al., 2006), socialization factors have been shown to explain a modest proportion of the concordance between parent and child anxiety (Bolton et al., 2006; Eley, 2001). Psychosocial variables, such as parental cognitions and child-rearing behaviours, have been identified as important correlates of the development and maintenance of child and adolescent anxiety (Bernstein, Borchardt, & Perwien, 1996; Bögels & Brechman-Toussaint, 2006; Woodruff-Borden, Morrow, Bourland, & Cambron, 2002).

Parental Cognitions and Child Anxiety

Creswell, Schiering, and Rapee (2005) suggested that anxious parental cognitions, specifically cognitions concerning threat, are one of the mechanisms that may influence the development of anxiety in children. Bögels, van Dongen, and Muris (2003) assessed the attributions that parents make in situations in which children are exposed to possible

anxiety-inducing events. In their study, parent-child dyads responded to ambiguous scenarios designed to elicit anxious responses. Parents were directed to think of how children, in general, would interpret the scenarios. Their children were asked to imagine how they, themselves, would act and think in the scenarios. The diagnoses of the child participants in the study ranged from non-anxious to clinically anxious. Results indicated that parents' reported level of fear and interpretation bias of threat in response to the scenarios were related to their children's negative interpretation bias. The negative interpretations that parents had attributed to children, in general, were considerably positively related to their own child's negative thoughts of avoidance and fear.

Other studies have found similar results. Barrett, Rapee, Dadds, and Ryan (1996) also examined parent and child responses to ambiguous scenarios by comparing three groups: parents of children with clinical anxiety, parents who had children diagnosed with oppositional defiant disorder, and parents of non-disordered children. Within the group that had children with anxiety, they found that not only were parents' own interpretations of the ambiguous situations very similar to their child's interpretations, but parents also were highly accurate in predicting their child's avoidant interpretations and responses to the situations. Specifically, both mothers and fathers, and their children with anxiety, interpreted the ambiguous scenarios in a threatening manner. Mothers, but not fathers, also predicted that their children would select an avoidance response in dealing with the situation.

Similarly, a study conducted by Creswell and colleagues (2005) illustrated the association between mother and child threat interpretations, as mothers of children with anxiety interpreted ambiguous situations as threatening to a similar degree as their

children. Of note, although the mother-child interpretations were significantly related, the relation between mothers' diagnosis of anxiety and their children's diagnosis of anxiety was found to be nonsignificant. This suggests that parents' cognitive mechanisms, regardless of whether or not the parents have been diagnosed with anxiety, are important in understanding parental factors associated with child anxiety (Francis & Chorpita, 2010b).

Some researchers have proposed that child anxiety is more strongly linked with mothers' expectations about their children's reactions and feelings, rather than mothers' interpretations of threat (Alloy et al., 2001; Creswell & O'Connor, 2006; Creswell, O'Connor, & Brewin 2006). Creswell and O'Connor (2006) found that mothers' expectations for how their children would interpret and respond to potentially anxiety-provoking situations partially mediated the relation between the mothers' threat interpretations and their children's interpretations of threat in response to the scenario. Mothers' expectations also were associated with children's report of anticipated distress to the situations. In a follow-up study, Creswell and colleagues (2006) looked at how this relation between children's anxiety and mothers' expectations endured over time and found that mothers' expectations of their children's distress to a potentially anxiety-provoking scenario was significantly related to their children's anxious cognitions at both the initial time of data collection, as well as six months later.

Recent research has identified an important parental cognitive variable, called *parental beliefs about anxiety*, and its relation to child anxiety (Francis & Chorpita, 2010a; Francis & Chorpita, 2010b). Parental beliefs about anxiety is a construct which taps into maladaptive cognitive biases and misinterpretations of threat concerning their

children's experience of anxiety. Particularly, parents who have high parental beliefs about anxiety believe that harmful consequences will result if their child experiences anxiety. For instance, parents who have such maladaptive beliefs may perceive an upset stomach as an indication of serious illness. According to Francis and Chorpita (2010a, 2010b), parents who experience these maladaptive beliefs about anxiety typically believe that: (1) negative consequences, such as injury or trauma, will occur if their children becomes anxious; (2) it will be harmful to their children to experience the emotions of fear and worry, and experiencing negative somatic symptoms will be harmful (e.g., feeling nauseated); and (3) parents tend to interpret ambiguous stimuli surrounding their child as threatening or harmful. These beliefs about anxiety do not reflect normal levels of concern about children experiencing negative emotions. Parental beliefs about anxiety are said to be separate from parents' own feelings of anxiety as well as their concerns about their children's safety.

Using a sample of clinically-referred children, these maladaptive parental beliefs about anxiety not only have been shown to be significantly associated with child anxiety (Duffett et al., 2008; Francis & Chorpita, 2010a; Francis & Chorpita, 2010b), but also have been found to mediate the relation between parental anxiety and children's diagnosis of anxiety (Francis & Chorpita, 2010b). Therefore, parental beliefs about anxiety is an important factor in understanding the link between parent and child anxiety because it appears to play an important role in the transmission of anxiety to children (Francis & Chorpita, 2010b).

Taken together, these studies suggest that maladaptive parental cognitive biases play an important role in the development and maintenance of child anxiety. Parents'

beliefs about their children's level of anxiety is of particular interest because unlike parental expectations which focus on the idea that anxiety will be provoked in specific situations, the construct of parental beliefs about anxiety is based on parents' cognitions that anxiety is a harmful emotion for their child to experience, regardless of the situation. Because parental beliefs about anxiety relate to parents' fear of the consequences which will result from anxiety, high or maladaptive parental beliefs about anxiety might have a global influence on parental behaviours that foster their children's anxious approach to situations in general. In contrast, parental expectations are situation-bound, centering around the feared responses that might produce anxious feelings in certain situations, but not others, and therefore this may not manifest in children's general anxious approach (Francis & Chorpita, 2010b). This construct of parental beliefs about anxiety has yet to be investigated within a community sample, however. Therefore one of the goals of the present study was to examine whether a similar relation between parental beliefs about anxiety and levels of child anxiety holds in a nonclinical sample.

Emotion Socialization and Child Anxiety

One objective of parenting is to facilitate the development of children's emotional development through the process of emotion socialization. This process of socialization refers to how parents help their children to learn, understand, regulate, cope, and express emotion (Denham, 1998; Eisenberg, Cumberland, & Spinrad, 1998; Halberstadt, 1986; Saarni, 1999). Parents typically engage in the behaviours of emotion socialization during children's negative emotional experiences (Eisenberg et al., 1998). For example, when a child is feeling sad, angry, or distressed, the parent may sit down and help the child work through their feelings and thoughts about the negative experience.

How parents socialize emotion in children may be influenced by a number of factors, such as the family's culture (e.g., Fivush & Wang, 2005; Le, Berenbaum, & Raghavan, 2002; Mesquita & Frijda, 1992; Trommsdorff & Rothbaum, 2008). Children learn to regulate their emotional functioning in line with how they have been socialized and how emotion is accepted within their culture (e.g., Eisenberg, Cumberland, & Spinrad, 1998; Matsumoto, 1993; Raver, 2004). Mother-child discussion about emotions (Fivush & Wang, 2005), parental responses to negative emotion (Cole, Tamang, & Shrestha, 2006), parental displays of affection and verbalization of emotion (Le, Berenbaum, & Raghavan, 2005) and parental acceptance of emotions (Raval & Martini, 2009) have all been shown to differ across cultures.

The way in which parents teach and communicate about negative emotions impacts on their children's emotional, social, and psychological development (e.g. Casey, 1996; Denham, 1998; Eisenberg, et al., 1998; Gottman, Katz, & Hooven, 1996; Gottman, Katz, & Hooven, 1997). The goal of parents' emotion socialization is to help develop children's emotional competence, defined as the expression, understanding, and regulation of emotions (Saarni, 1990). Emotional competence is necessary for the healthy development of children's social competence (e.g., Cicchetti, Ackerman, & Izard, 1995; Eisenberg & Fabes, 1992; Hubbard & Coie, 1994; Saarni, 1990; Saarni, Mumme, & Campos, 1998) and psychological well-being (Casey, 1996; Denham, 1998; Gottman, 1997). Children who do not become emotionally competent in a developmentally-appropriate manner are placed at high risk for developing psychopathology (Zahn-Waxler, Iannotti, Cummings, & Denham, 1990).

Although researchers have typically focused on how parental emotion socialization is related to children's negative emotions such as sadness, anger, and distress (e.g., Eisenberg et al., 1996), there remains a paucity of research regarding anxiety and its relation to emotion socialization (Stocker, Richmond, & Rhoades, 2007). The majority of studies that have examined the association between emotion socialization and anxiety have looked at emotion socialization and internalizing disorders in adolescence (Katz & Hunter, 2007; Lunkenheimer, Shields, & Cortina, 2007; Stocker et al., 2007) or the discrepancy in emotion socialization practices between mothers of clinically anxious and non-anxious children (Suveg, Sood, Hudson, & Kendall, 2008; Suveg, Zeman, Fannery-Schroeder, & Cassano, 2005).

There is some evidence to suggest that there are differences in the emotion socialization practices of parents of children diagnosed with anxiety, as compared to parents of children without an anxiety disorder (Suveg et al., 2008; Suveg et al., 2005). In comparison to mothers of children without anxiety, mothers with children who have clinical anxiety have been shown to discourage the discussion of negative emotional encounters (Suveg et al., 2005). To further examine emotional socialization processes within the family system, Suveg and colleagues (2008) conducted a study with parents and their children, age 8 to 13 years, with and without an anxiety disorder. In the study, children and both of their parents participated in a 15-minute discussion, focusing on situations in which the child felt anxious, angry, and happy. The fathers of the children with anxiety participated in less discussion of the causes and consequences of the target emotions (anxious, angry, happy) than did fathers of children without anxiety. Mothers of

children with anxiety engaged in less explanatory discussion of anxious emotions than did mothers of children without anxiety.

Overall, it appears that children with anxiety, in comparison to children without anxiety, may be disadvantaged with respect to the quantity and quality of parental efforts to engage in emotional discussion and teaching, key aspects of emotion socialization. If parents are not helping their children understand, express, regulate, and cope with their negative emotional experiences, particularly anxious experiences, this may contribute to the maintenance of their child's anxiety (Suveg et al., 2008). However, it is still unclear why there are differences in emotion socialization between parents of children with and without anxiety. One way that might help us understand these differences is parents' cognitions about emotion socialization practices. Gottman's (1997) meta-emotion philosophy offers one way of looking at these cognitions.

Parental Meta-Emotion Philosophy and Child Anxiety

Meta-emotion philosophy, first introduced by Gottman and colleagues (Gottman, 1997; Gottman, Katz, & Hooven, 1996), is the set of beliefs, thoughts, and feelings that parents hold about their own and their children's emotional experiences that is thought to be related to the way that parents engage in the socialization of emotion. Meta-emotion philosophy emphasizes that parental coaching of emotion is adaptive and central to children's healthy development. Parents who hold emotion coaching beliefs are aware of their own and their children's emotions, accept and validate their children's emotions, and view their children's emotional arousal as an opportunity for listening and teaching. These parents conduct themselves in an empathetic manner, helping their children process and regulate their own emotions.

Gottman and colleagues have demonstrated that children whose parents engage in emotion coaching tend to have fewer problem behaviours, healthier social relationships, better academic performance, and are in better physical health than children whose parents do not practice such emotional guidance (e.g., Gottman, 1997; Gottman, et al., 1996). Furthermore, their work has shown that emotion-coached children experience fewer negative emotions and more positive feelings than children who receive less parental emotion coaching. Emotion coaching also may buffer children from the negative and harmful effects of incidents such as marital conflict and parental divorce.

Emotion coaching is one of four emotion-related parenting styles identified by Gottman (1997). The other three styles are: dismissing, disapproving, and laissez-faire. Whereas emotion coaching is considered the most adaptive type of parenting style, these other three emotion-related parenting styles are not adaptive and typically result in negative outcomes for the child (Gottman, 1997).

Dismissing and disapproving emotion-related parenting styles have been shown to be similar in relation to children's negative outcomes. Children of parents who practice emotion dismissing or disapproving tend to learn that their negative emotions should not be experienced, are inappropriate, and invalid (Gottman, 1997). Both types of parents also are ineffective in teaching problem-solving skills or assisting in the coping of their children's negative experiences. The primary difference between the two is that dismissing is more of a passive parenting process, in that these parents just want the children's emotions to disappear, whereas disapproving involves actively disapproving of their children's negative emotions.

Laissez-faire style, similar to the emotion coaching style, describes parents who are aware of their own and their children's emotions, accept their children's negative emotions, and attempt to placate their children during the experience of negative emotions. However, laissez-faire parents offer little to no guidance regulating emotions, and do not actively teach children emotion problem-solving skills. Children of laissez-faire parents appear to have trouble with social relationships, as well as regulating their emotions (Gottman, 1997).

The four emotion-related parenting styles have been measured in the past by a measure called the Emotion-Related Parenting Styles Self-Test (ERPSST; Gottman, 1997; Hakim-Larson et al., 2006). More recently, Paterson et al (2010), using parents of children with and without a developmental disability, explored the underlying factor structure of the ERPSST-L and created a psychometrically valid short-form of this measure called the Emotion-Related Parenting Styles to measure parents' cognitions surrounding their children's experience of negative emotion. Although the factor structure that emerged from this work was very similar to Gottman's four emotion-related parenting styles, the measure revealed slightly different cognitive parenting styles. The emotion coaching subscale remained unchanged. The separate dismissing and disapproving styles were combined into a *parental rejection of negative emotion* subscale (referred to in this study as parental rejection of negative emotion) as they were highly correlated with each other and are characterized by parents' rejecting their children's emotional experiences. Similar to laissez-faire, a new subscale emerged called *parental acceptance of negative emotion*, which measures parents' acceptance of their children's expression of negative emotion without providing guidance. A new construct, *feelings of*

uncertainty/ineffectiveness, also emerged. This subscale measures parents' doubt and feelings of futility when dealing with children's negative emotional expression. For the current study, these newer emotion-related parenting style categories were used.

Because emotion socialization plays an important role in understanding how parent characteristics may relate to child anxiety, and meta-emotion philosophy is essential for understanding parental emotion socialization, the next logical progression of research is to explore the relation between meta-emotion philosophy and child anxiety. Only a handful of studies have investigated the relation between child internalizing problems and emotion-related parenting styles, such as emotion coaching or dismissing (e.g., Katz & Hunter, 2007; Lunkenheimer et al., 2007; Stocker et al., 2007). Of these studies, the majority have focused exclusively on the emotion coaching style, without investigating parents' relative levels of emotion coaching scores with dismissing or disapproving scores.

Stocker and colleagues (2007) examined the relation between parental emotion coaching and adolescents' problems with adjustment, operationalized as self- and parent-report of internalizing and externalizing symptoms. Results indicated that parents' emotion coaching behaviours accounted for unique variance in adolescents' internalizing symptoms. Specifically, parents who were low on emotion coaching had adolescents with more anxiety and depressive symptoms. Parents' emotion coaching did not, however, relate to adolescents' externalizing symptoms.

Similarly, Katz and Hunter (2007) examined the relation between adolescents' perception of their mothers' meta-emotion philosophy and adolescents' internalizing symptoms, behavioural problems, and self-esteem issues. It was found that adolescents

who perceived their mothers as using more emotion coaching strategies had fewer internalizing symptoms. Consistent with Stocker and colleagues' (2007) results, mothers' emotion coaching strategies were not related to adolescents' externalizing problems. Taken together with Stocker and colleagues' findings, these results provide support for the idea that the relation between emotion coaching and adolescent adjustment may be unique to internalizing symptoms (Katz & Hunter, 2007; Stocker et al., 2007).

On the other hand, there is reason to believe that an emotion dismissing style, rather than merely low emotion coaching, may be more of a direct risk factor for internalizing problems in children. Lunkenheimer and colleagues (2007) studied the relation of parental emotion coaching and dismissing behaviours during family interactions with the outcomes of the children's emotional regulation, emotion lability, and internalizing and externalizing problems. In the study, both parents and their children, age 8 to 12, completed questions related to the outcome variables and took part in a narrative task, focusing on one positive family experience, one difficult family experience, and a time when the child misbehaved. It was found that parental emotion coaching was not directly related to the children's outcomes, but fathers' emotion dismissing was found to be a risk factor for poor emotion regulation and externalizing problems. Children's internalizing problems were predicted when parents were both low on emotion coaching and high on emotion dismissing. Therefore, the authors concluded that emotion coaching is an important protective factor for children's adjustment.

Taken together, these findings suggest that the more adaptive the parents' meta-emotion philosophy, the better the emotional adjustment of the child. In particular, it appears that the most adaptive combination of parenting styles to buffer against

internalizing problems is having parents high on emotion coaching and low on emotion dismissing. Much of this research has looked at internalizing problems, in general, not specifically anxiety (Katz & Hunter, 2007; Stocker et al., 2007); therefore, there is a need to investigate the relation between emotion-related parenting styles and anxiety in children. Furthermore, it is important to look at the cognitive parenting styles of both emotion coaching and parental rejection of negative emotion (similar to the dismissing construct used in previous research) because parents who score low on emotion coaching may not necessarily deal with emotion in a negative manner, as would those who score high on parental rejection of negative emotion . In the same vein, parents who score low on parental rejection of negative emotion may not hold negative beliefs about emotions, but they may not be as helpful or supportive during their children's emotional experiences as would those who score high on emotion coaching. The presence of maladaptive emotion-related parenting behaviors (i.e., parental rejection of negative emotion) may be more associated with childhood anxiety than the absence of adaptive emotion-related parenting behaviors (i.e., emotion coaching).

Child-Rearing Practices and Child Anxiety

As parental cognitions must manifest into behaviours in order for children to learn from them, parental behaviours also should be examined in relation to child anxiety. Research suggests that certain child-rearing practices are associated with the development and maintenance of child anxiety (e.g., Ginsburg, Grover, & Iagongo, 2004; Lindhout et al., 2006; Moore, Whaley, & Sigman, 2004; Turner, Beidel, Roberson-Nay, & Tervo, 2003; Woodruff-Borden, Morrow, Bourland, & Cambron, 2002). In particular, three parental behaviours have been repeatedly linked to child anxiety: parental over-control,

parental rejection, and parental anxious rearing. Parental over-control represents behaviours which are intrusive and interfering to the child. Over-controlling parents attempt to regulate their child's activities and discourage their independence, particularly when problem-solving (Bögels & Brechman-Toussaint, 2006). Child self-report studies (von Brakel, Muris, Bögels, & Thomassen, 2006; Grüner, Muris, & Merckelbach 1999; Muris & Merckelbach, 1998; Muris, Meesters, Merckelbach, & Hulsenbeck, 2000), parent-report studies (Hudson & Rapee, 2005; Rubin, Nelson, Hastings, & Asendorpf, 1999) and observational studies (Greco & Morris, 2002; Hudson & Rapee, 2001, 2002; Moore et al., 2004; Siqueland, Kendall, & Steinberg, 1996) have all found that parents who excessively restricted their children's activities and granted less autonomy, a form of parent over-control, had children who exhibited anxious symptoms. For example, Hudson and Rapee (2001), using a stress-invoking interaction task with mother-child dyads, found that mothers of children with clinical anxiety were more involved and intrusive (e.g., assisting the child with a task even though the child did not request help) than mothers of nonclinical children. In a study that used a school sample of nonclinical youth, von Brakel and colleagues (2006) found self-reported anxiousness to be significantly associated with youths' reports of their parents' controlling behaviours. Although there seems to be a strong association between child anxiety and parental over-control, according to a recent meta-analysis, parental over-control has been shown to account for about 6 to 18% of variance in childhood anxiety (McLeod, Wood, & Weisz, 2007).

The second parental behaviour that has been shown to be associated with child anxiety is parental rejection (Lindhout et al., 2009; McLeod et al., 2007). Parental rejection is a term that encompasses the parent behaviours of disapproval,

unresponsiveness, withdrawal, low levels of approval, and lack of emotional support and warmth towards a child. Comparing mothers with an anxiety disorder and mothers without a psychiatric illness, Ginsburg and colleagues (2004) conducted a study examining parenting behaviours during a parent-child interaction, such as control, displays of negative and positive affect, and criticism. The authors did not find significant associations between the parenting behaviours and child anxiety when the children were in first grade. However, at the six-year follow up, higher levels of parental criticism (e.g., insulting and blaming the child) predicted higher levels of self-reported anxiety in early adolescence. The researchers concluded that parental criticism may be a risk factor for the development of anxious symptoms in children. Similarly, in a sample with older children, age 7 to 15 years, Moore and colleagues (2004) found that, independent of mothers' diagnosis of anxiety, mothers of children with anxiety showed less warmth and granted less autonomy to their children than mothers of children without anxiety.

Some researchers suggest that children are at a much greater risk of developing an anxiety disorder when rejecting parents display more active rejecting behaviours, such as criticism, withdrawal, and disapproval, rather than more passive rejecting behaviours, such as showing low warmth and support (Bögels & Brechman-Toussaint, 2006; McLeod et al., 2007; Scott, Scott, & McCabe, 1991). This finding is consistent with other parenting research that suggests that negative parenting behaviours are related to negative child outcomes, more so than the lack of positive parenting behaviours (e.g., Gottman, et al., 1996; Gottman, et al., 1997). Nevertheless, parental rejection appears to only account for 4% of the variance in child anxiety, which is even less than the variance accounted for by parental control (McLeod et al., 2007).

A third parental behaviour that has been shown to be related to child anxiety is parental anxious rearing. Anxious rearing is defined as the explicit encouragement of avoidance behaviours and anxious cognitions in children (von Brakel et al., 2006). Parents using anxious rearing reinforce children's avoidant responses, excessively warn children about experiencing dangers, and model maladaptive avoidant and fearful behaviour. Anxious rearing mainly has been researched using child-report studies assessing children's and adolescents' perception of their parents' rearing behaviours (e.g., von Brakel et al., 2006; Grüner et al., 1999). Parents who practice high levels of anxious rearing have been shown to have children who are more anxious than the children of parents who do not practice anxious rearing (Grüner et al., 1999; Muris, Meesters, & von Brakel, 2003; von Brakel et al., 2006). For example, with a large community sample of children, von Brakel and colleagues (2006) assessed children's perception of their parents' anxious rearing and controlling behaviours in relation to their self-reported anxious symptoms. Parental anxious rearing accounted for a modest, yet unique proportion of the children's feelings of anxiety beyond that of parental controlling behaviours.

Moreover, parents' anxious rearing style may enhance avoidance responses of children with anxiety when coping with ambiguously-anxious situations (Barrett, Rapee, Dadds, & Ryan, 1996; Dadds, Barrett, Rapee, & Ryan, 1996; Chorpita, Albano & Barlow, 1996). For example, Barrett and colleagues (1996) presented parents and their children, age 7 to 14 years, with ambiguous scenarios. First, they interviewed parents and children separately about their interpretations of the scenarios. Then the parent-child dyads engaged in a discussion about two of the scenarios, during which parents were

instructed to help the child to deal with the scenario. Finally, the children once again provided their two solutions, which included their interpretations and responses to the scenarios. The findings suggested that the parents of children with anxiety enhanced their children's initial threat interpretations and avoidant responses, such that the children's responses after the parent-child discussion were more avoidant than the children's initial responses. Using the same data, Dadds and colleagues (1996) explored the underlying mechanisms of this enhanced avoidance response observed during the parent-child interaction. Differences in parent-child interactions were found between the groups of children with an anxiety disorder and the controls, in that parents of children with an anxiety disorder appeared to reciprocate avoidance responses when discussing ambiguous threat situations by responding to their children's avoidance with avoidance behaviours or suggestions.

In summary, certain parenting behaviours appear to be associated with anxiety in children, regardless of parent diagnosis of anxiety. Parental over-control, rejection, and anxious rearing are some of the parental behaviours that have been highlighted in recent research as correlates of child anxiety. These child-rearing practices typically explain a modest proportion of variance, however, and each may not have a unique relation to the development of child anxiety. Therefore, exploring other child-rearing practices in relation to anxiety may explain a higher proportion of variance and help to construct a more comprehensive picture of how child-rearing practices are related to child anxiety.

Coping Socialization

A parenting variable that has been overlooked in the research as a possible parenting behaviour associated with child anxiety is parental coping socialization. Coping socialization is the ability of parents to guide, coach or direct their children toward a solution in a distressing situation (e.g., Eisenberg et al., 1999; Gottman et al., 1996; Kliewer, Fearnow, & Miller, 1996). Supportive coping socialization allows children to learn how to adaptively cope with their negative emotions in distressing situations (Gottman et al., 1996; Kliewer et al. 1996). Parents' supportive coping socialization may include responding with suggestions of strategies to help the child feel better, actively assisting in solving the problem that caused the negative emotions, or simply encouraging emotional expression. In contrast, parents' unsupportive coping socialization may include responding punitively, minimizing the seriousness of their children's problems or experiencing distress themselves when their children experience and express negative affect.

To date, research on parents' coping socialization has largely been focused on the relation between coping socialization and child functioning. For example, early research in the area explored parent suggestions of coping strategies during medical procedures (e.g., Blount et al. 1992). More recently, a number of studies examined the link between parental socialization of coping and children's social, emotional, and adaptive functioning (e.g., Dadds et al., 1996; Davidov & Grusec, 2006; Eisenberg et al., 1999; Fabes, Leonard, Kupanoff, & Martin, 2001; Kliewer et.al. 1996; Klimes-Dougan, & Zeman, 2007; McElwain, Halberstadt, & Volling, 2007; Tao, Zhou, & Wang, 2010). For example, Fabes and colleagues (2001) examined the relation between parental coping

socialization and social and emotional outcomes in preschool-aged children. The authors found that parents' employment of harsh, unsupportive coping strategies when dealing with children's negative emotional experiences predicted poorer emotional regulation. As a result, children experienced negative emotions at a greater degree, which, in turn, predicted poorer social behaviour. A study conducted by Davidov and Grusec (2006) explored six- to eight-year-old children's emotional and social outcomes in relation to mother and father reactions to their children's negative emotions. The authors found that both maternal and paternal supportive responses to distress, predicted better regulation of negative emotions. In a community sample of school-age children, Kliewer and colleagues (1996) investigated the relation between parental coping socialization and child coping responses. On the whole, it was found that mothers' coping behaviours, more so than fathers' behaviours, were associated with children's coping skills. For instance, adaptive active coping behaviours in boys was predicted by maternal positive reframing of the situation and the use of active coping in fathers. Mothers' negative suggestions for a plan of action was associated with their daughters avoidance coping. Overall, the consensus in the research appears to be that parental supportive coping socialization leads to positive outcomes in children, whereas unsupportive coping socialization leads to negative outcomes such as emotion and behaviour dysregulation in children.

Given that coping socialization has been linked to emotion and behavioural dysregulation, it is surprising that so little work has been done on its relation with anxiety, which is a form of emotional dysregulation. Parents of children with anxiety have been shown to enhance their children's maladaptive avoidant responses when faced

with an anxiety-provoking situation, rather than proactively aiding their coping efforts (Dadds et al., 1996; Klimes-Dougan, & Zeman, 2007). For instance Klimes-Dougan and Zeman (2007) found that parents of adolescents experiencing internalizing symptoms employed unsupportive coping strategies when socializing ways to deal with sadness compared to parents of adolescents without internalizing problems. Specifically, the parents of adolescents with internalizing symptoms used fewer problem-solving strategies, provided less comfort and empathy, and did not attempt to override the adolescents' negative emotion in a positive way.

In view of the fact that coping socialization is important for positive child outcomes, it is also essential to look at what factors are associated with coping socialization. Yet research hasn't fully explored these factors. A number of researchers have examined parenting style variables and noted that authoritative parents use less punitive reactions, and more emotion- and problem-focused reactions, as well as encourage emotional expression, while authoritarian parents have been found to use more punitive and minimizing reactions and less problem- and emotion-focused reactions to negative emotions (Tao, et al., 2010). Furthermore, parent coping socialization has shown to be correlated with parents' emotion-related parenting styles (Gottman, 1997; Hakim-Larson et al., 2006). A study conducted by Hakim-Larson and colleagues (2006) found that emotion coaching positively correlated with parents' perception of using emotion expression when socializing coping. Emotion coaching also was found to be negatively correlated with parents' perceived use of minimizing their children's reactions to distressing situations. On the other hand, dismissing and disapproving parenting styles

were found to be negatively correlated with emotion expression and problem-solving solutions, but positively correlated with minimizing and distress reactions.

Due to the lack of research in predicting how parents socialize coping, for the current study, the association between parental coping socialization and beliefs about negative emotion (i.e., parental beliefs about anxiety, emotion coaching, and parental rejection of negative emotion) was explored. Furthermore, because coping socialization is a parental behaviour, this might help to explain links between parental cognitive processes and outcomes, for example child anxiety.

The Present Study

The purpose of the current investigation was to explore whether emotion-related parenting styles interact with parental beliefs about anxiety in predicting children's level of anxiety and coping socialization in a nonclinical sample. To examine these relations, parents completed questionnaires measuring their maladaptive beliefs about anxiety, their emotion-related parenting styles, their perceptions of their coping socialization, and measures of the levels of anxiety experienced by themselves and by their children.

Hypotheses

Hypothesis 1: Parental beliefs about anxiety and child anxiety. Given that research has identified a significant link between parental beliefs about anxiety and child anxiety in clinical populations (Duffett et al., 2008; Francis & Chorpita, 2010a, 2010b), it was expected that parental beliefs about anxiety and parent-reported levels of child anxiety would show the same pattern of association in a nonclinical sample. That is, parents who hold maladaptive beliefs about the harmfulness of anxiety were expected to have children with higher levels of anxiety.

Hypothesis 2: Parental beliefs about anxiety, emotion-related parenting styles, and child anxiety. An emotion coaching emotion-related parenting style has been linked to fewer internalizing problems in children, and emotion coaching often acts as a buffer against potentially harmful parenting (Gottman, 1997; Lunkenheimer et al., 2007). Therefore, it was predicted that there would be an interaction between parents' emotion coaching scores and parental beliefs about anxiety in predicting children's levels of anxiety. Specifically, parents who report less maladaptive beliefs about their children's anxiety and report a high emotion coaching cognitive parenting style were expected to report the lowest levels of anxiety in their children. Conversely, parents who report low emotion coaching and report more maladaptive beliefs about their children's anxiety were expected to have children with the highest levels of anxiety.

Parents who reject their children's negative emotions are typically not helpful or supportive when their children experience negative emotions. It was therefore hypothesized that parents who report high maladaptive beliefs about anxiety and high parental rejection of negative emotion would report that their child experiences more symptoms of anxiety than parents who are low on both of these maladaptive constructs.

Hypothesis 3: Parental beliefs about anxiety, emotion-related parenting styles, and coping socialization. Parents of children with symptoms of anxiety have been shown to use less effective coping strategies when socializing ways to deal with negative emotions (e.g., Klimes-Dougan & Zeman, 2007). Given that it was expected that parental beliefs about anxiety and emotion-related parenting styles would be associated with levels of anxiety in children, it was also expected that these cognitive parental variables would be associated with coping socialization. Specifically, it was expected that parents

who report less maladaptive beliefs about anxiety and high emotion coaching would endorse more supportive coping strategies in response to hypothetical emotion-provoking situations. Conversely, parents who report more maladaptive beliefs about anxiety and low emotion coaching would endorse more unsupportive coping strategies.

It is also expected that parents who report low parental beliefs about anxiety and low parental rejection of negative emotion would endorse more supportive coping socialization in response to hypothetical emotion-provoking situations. In contrast, parents who report high parental beliefs about anxiety and high parental rejection of negative emotion would endorse more unsupportive coping strategies.

Hypothesis 4: Parental beliefs about anxiety, coping socialization, and child anxiety. If a cognitive construct – such as parental beliefs about anxiety, parental rejection of negative emotion, or emotion coaching – is associated with levels of anxiety in children, there is likely to be a behavioural manifestation of these beliefs that provides a link between these two variables as parental cognitions alone cannot directly influence child anxiety. It is expected that parental cognitions lead to parental behaviours, which, in turn, lead to child outcomes, such as child anxiety. Parental coping socialization may be one of these behavioural factors. Therefore, parental coping socialization was hypothesized to mediate the relation between parental beliefs about their children's emotions (parental beliefs about anxiety, parental rejection of negative emotion, and emotion coaching) and levels of child anxiety. Specifically, high report of maladaptive beliefs should be associated with greater unsupportive coping suggestions, and this would lead to higher levels of anxiety in children.

CHAPTER III

METHODOLOGY

Participants

Initially, 68 mothers and fathers were recruited for the study. One parent was excluded from the study because her child had an identified or suspected developmental disability (e.g., Autism Spectrum Disorder). Parents of children with developmental disabilities were excluded from the analyses because of factors associated with the disorders (e.g., low IQ) that may impact on how parents deal with their children's emotions. Another two participants were removed because their children were diagnosed with Attention-Deficit/Hyperactivity Disorder (ADHD). It was decided to remove the participants with children diagnosed with ADHD because parents of children with ADHD have been shown to socialize emotion differently than parents of children without ADHD (e.g., Brown, 2007). One child had been diagnosed with learning disabilities (reading and math); however, this case was retained because the child's diagnosis was not likely to significantly affect the key variables in the study and because the participant's data were comparable to those of parents with typically-developing children in the sample.

Although research has found that parents socialize emotion differently with children who have been diagnosed with a developmental disability compared to typically-developing children (e.g., Baker & Crnic, 2009), research has not found that parents of children with learning disabilities socialize emotion differently. Seven parents (11.5% of the sample) were excluded from the analyses due to large amounts of missing data in at least one of the main questionnaires. The remaining 58 parents' ages ranged between 19 to 47 years, with the majority of the sample consisting of mothers (81%). Their children's ages

ranged from 3 to 12 years. There were slightly more boys (55%) than girls, with one child's mother reporting the child's gender in the "other" category. Table 1 contains the means and standard deviations of the participants.

Participant demographics are summarized in Table 2. The majority of parents had only one child. The sample was ethnically diverse as little under half of the participants were non-White (45%). The majority of participants were married, although married participants represented less than half of the sample. Participants who reported their marital status as "other" ($n = 4$), clarified their status as being separated, living with a boyfriend, and being a widower. The majority of participants were working towards an undergraduate degree and the average family income was in the range of 51,000 to 60,000.

Participants were recruited from the University of Windsor's Psychology Department Participant Pool, the Friendly Families Database and community daycares. The Psychology Participant Pool is an online site for undergraduate students who are registered in Psychology courses that allows them to participate in research to obtain extra credit toward their Psychology course of choice (see Appendix A for the advertisement). The Friendly Families Database is a database of parents recruited from the community who have agreed to be contacted for studies through the Psychology department at the University of Windsor. Finally, parents also were recruited through advertisement flyers given to their children at daycare (see Appendix B for the flyer). Overall, 14% of the total participants came from the community sample, all of whom were mothers.

Parents were compensated for their participation. Those who were recruited through the participant pool received bonus points which could be credited towards the psychology course of their choice, and the community sample parents entered their names into a drawing for a \$50 gift certificate.

Table 1

Means and Standard Deviations of the ages of Parents and their Children

	<i>n</i>	<i>M</i>	<i>SD</i>
Parents	58	30.13	7.56
Mother	47	29.94	7.13
Father	11	30.89	9.52
Children	58	6.38	2.76
Girls	25	5.93	2.00
Boys	32	6.72	3.08
Other	1	3.00	---

Table 2

Participant Demographic Characteristics

Characteristic	<i>n</i> = 58	Percentage
Ethnicity		
Asian	1	1.7
Black	9	15.5
Latin American	2	3.4
Middle Eastern	8	13.8
White	32	55.2
Other	6	10.3
Highest level of education		
Graduated high school	9	15.5
Some college, vocational training	3	5.2
Graduated from college	10	17.2
University courses	19	32.8
Bachelor's degree	14	24.1
Master's degree	2	3.4
Doctoral degree	1	1.7
Relationship status		
Married to child's biological parent	26	44.8
Divorced from child's other parent	2	3.4
Common law with child's biological parent	11	19.0
Common law with child's step-parent	4	6.9
Single	12	20.7
Widow	1	1.7
Other	2	3.4
Number of children		
One child	38	65.5
Two children	13	22.4
Three children	5	8.6
Four children	2	3.4
Income		
Less than 10,000	3	5.2
10,000 to 20,000	4	6.9
21,000 to 30,000	2	3.4
31,000 to 40,000	6	10.3
41,000 to 50,000	5	8.6
51,000 to 60,000	5	8.6
61,000 to 70,000	4	6.9
Over 70,000	16	27.6
Prefer not to answer	13	22.4

Measures

Parents completed six questionnaires and a general background questionnaire for this study. The measures are described below.

Background questionnaire. The background questionnaire (see Appendix D) consisted of a series of short fill-in-the-blank or multiple-choice questions pertaining to the parent's and child's age, gender, education level, and ethnicity. Questions also addressed parental marital status, occupation (an assessment of socioeconomic status), highest education level achieved, number of children in the household, and number of total individuals in household. The background information questionnaire appeared as the beginning questionnaire following the consent form.

Emotion-Related Parenting Styles (ERPS; Paterson et al., 2010). The ERPS is a 20-item parent-report questionnaire designed to measure parents' emotion-related parenting styles. The ERPS has four subscales, each containing five statements, that assess emotion coaching (e.g., "When my child is angry, it's time to solve a problem"), parental rejection of negative emotion (e.g., "Children often act sad to get their way"), parental acceptance of negative emotion (e.g., "A child's anger is important"), and feelings of uncertainty/ineffectiveness (e.g., "When my child is angry, I'm not quite sure what he or she wants me to do"). Responses to each item were rated on a Likert-type scale ranging from 1 (*always false*) to 5 (*always true*) and the total score on each subscale was an average of the five items, with higher scores indicating greater endorsement of the parenting style. Reliability of the ERPS was assessed using two different ethnically diverse populations: a sample of parents of children with developmental disabilities (subscale alphas ranged from .71 to .80) and a sample of parents of typically-developing

children (subscale alphas ranged from .73 to .77). In the current study alphas of the subscales were as follows: .77 for emotion coaching, .82 for accepting of emotion, .57 for parental rejection of negative emotion, and .67 for uncertainty/ineffectiveness.

Revised Child Anxiety and Depression Scale – Parent Version (RCADS-P; Ebesutani, Bernstein, Nakamura, Chorpita, & Weisz, 2010). The RCADS-P is a 47-item parent-report questionnaire designed to assess children’s internalizing symptoms associated with anxiety and depression, closely mapping onto DSM-IV symptom criteria. The RCADS-P has six subscales assessing Separation Anxiety Disorder (e.g., “My child worries about being away from me”), Social Anxiety Disorder (e.g., “My child worries about looking foolish”), Generalized Anxiety Disorder (e.g., “My child worries something bad will happen to him/her”), Panic Disorder (e.g., “My child worries that he/she will suddenly get a scared feeling when there is nothing to be afraid of”), Obsessive-Compulsive Disorder (e.g., “My child has to do something over and over again (like washing hands, cleaning, or putting things in a certain order)”), and Major Depression (e.g., “My child feels sad or empty”). Parents identified how often each statement applied to their children on a Likert-type scale from 0 (*never*) to 3 (*always*) and the total score on each subscale was an average of the items within the subscale. The scores on all five anxiety subscales were summed and averaged to create a composite Total Anxiety Score. The Total Anxiety Score was used as the outcome measure of levels of child anxiety, such that higher averages correspond to higher levels of anxiety that the child is experiencing. The RCADS-P’s psychometric properties were validated using an ethnically diverse population. The anxiety scales on the RCADS-P have yielded significant test-retest reliability coefficients ranging from .79 to .93 and high internal

consistency with alphas ranging from .79 to .90. Strong convergent validity was revealed through a significant correlation ($r = .76, p < 0.01$) between the CBCL Anxious/Depressed Syndrome Scale Score and the RCADS-P, whereas a non-significant correlation ($r = .22, p > .05$) between the CBCL Externalizing Total Score and RCADS-P, indicated acceptable discriminant validity (Ebesutani et al., 2010). In the current study, the RCADS anxiety composite scale had high internal consistency ($\alpha = .91$).

Parental Beliefs about Anxiety Questionnaire (PBA-Q; Francis & Chorpita, 2010a). The PBA-Q is a 17-item parent-report questionnaire designed to assess maladaptive beliefs that parents may hold about their children's experience of anxiety. Parents rated each statement pertaining to their thoughts and feelings towards their child's experience of possible anxious symptoms, for example, "When my child is upset, it makes me very anxious." Responses to each item are rated on a 4-point Likert-type scale, ranging from 0 (*strongly disagree*) to 3 (*strongly agree*) and the total score on the measure is obtained by summing the rating of each item, with higher scores indicating a greater belief that anxiety is harmful for their children. The PBAQ, like the RCADS-P, was developed and psychometrically validated using an ethnically diverse population. The PBA-Q has shown evidence of convergent validity through associations with measures such as parent- and child-report of anxiety, and it also has shown evidence of discriminant validity through non-significant correlations with measures of child externalizing disorders. Using a clinical sample, analyses of internal consistency has yielded an alpha of .81 (Francis & Chorpita, 2010a). In the current study, internal consistency was found to be very good ($\alpha = .86$).

Coping with Children's Negative Emotions Scale (CCNES; Fabes, Poulin, Eisenberg, & Madden-Derdich, 2003). The CCNES consists of 12 short hypothetical scenarios designed to assess how parents would respond to their children's negative affect in stressful situations. The CCNES was used as a measure of coping socialization. The CCNES has six subscales that reflect the types of coping responses that parents may use when their child is faced with distressing situations. For each of the 12 scenarios, parents were presented with six response options that correspond to each of the subscales. The subscales were *Expressive Encouragement (EE)*, which represented the degree to which parents encouraged or validated children's expression of negative emotions; *Emotion-Focused Responses (EFR)*, which represented the degree to which parents responded with strategies that are designed to help their children feel better; *Problem-Focused Responses (PFR)*, which reflected the degree to which parents helped the child solve the distressing problem; *Distress Reactions (DR)*, which represented the degree to which parents experienced distress when their child expresses negative affect; *Punitive Responses (PR)*, which reflected the degree to which parents responded with punitive reactions to deal with the negative emotions of their child; and finally, *Minimizing Responses (MR)*, reflecting the degree to which parents minimized the seriousness of the situation. For example one of the scenarios was, "If my child loses some prized possession and reacts with tears, I would:" and a MR response to this scenario would be, "tell my child that he/she is over-reacting." Parents rated their likelihood of using each of the six response options on a Likert scale from 1 (*Very unlikely*) to 7 (*Very likely*). The total score on each coping subscale was an average of the ratings for each type of coping with higher scores indicating greater endorsement of that type of coping. Therefore participants obtained

scores on each type of coping. The six coping strategies were grouped into two coping categories: supportive coping and unsupportive coping (Fabes, Poulin, Eisenberg, & Madden-Derdich, 2002). The averages for the subscales were summed to obtain a score for supportive coping (EE + EFR + PFR) and unsupportive coping (DR + MR + PR). The internal reliability for each subscale has been found to be adequate to very good, ranging from .69 for PR to .85 for EE. The test-retest reliability has been shown to be very good, as the correlations within each subscale of parental coping response ranged from .56 to .83, both at a significance level of $p < .01$. In the present study, internal reliability for each subscale ranged from .59 for DR to .93 for EE. The supportive coping composite score revealed excellent internal consistency ($\alpha = .95$), while the unsupportive coping composite score exhibited very good internal consistency ($\alpha = .84$).

Depression, Anxiety, Stress Scales-21 (DASS-21; Antony, Beiling, Cox, Enns, & Swinson, 1998). The DASS-21 is a shorter version of the original 42-item DASS (Lovibond & Lovibond, 1995). The DASS-21 assessed feelings related to anxiety, depression, and stress during the week prior to completing the questionnaire. It is an adult self-report measure consisting of 21 items that load on three subscales: depression (e.g., “I felt I wasn’t worth much as a person”), anxiety (e.g., “I was worried about situations in which I might panic and make a fool of myself”), and stress (e.g., “I found it hard to wind down”). For the purpose of this study, the anxiety scale was used to measure parent anxiety, which was assessed as a possible covariate. Each subscale consisted of seven items, and each statement was rated on a Likert-type scale from 0 (*Did not apply to me at all*) to 3 (*Applied very much, or most of the time*), with higher scores representing higher levels of stress, depression or anxiety. The DASS-21 has been shown to be a reliable and

valid measure in similar and diverse populations (Antony et al., 1998). Cronbach's alphas for the DASS-21 subscales have been found to be .94 (depression), .87 (anxiety), and .91 (stress). Convergent validity for the anxiety subscale was assessed using the Beck Anxiety Inventory and the State-Trait Anxiety Inventory-Trait Version, resulting in correlations of .55 and .85, respectively. The depression scale showed good convergent validity ($r = .79$) with the Beck Depression Inventory. Cronbach's alphas for the present study were: .87 (depression), .81 (stress), and .70 (anxiety).

Marlowe-Crowne Social Desirability Scale – 10-item Version. (MC-10, XI version; Strahan & Gerbasi, 1972). The MC-10 is a shorter version of the original 33-item Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960). The MC-10 is a 10-item questionnaire designed to measure a participant's response bias towards socially desirable responses. A measure of social desirability is recommended when using measures that may pull for socially-desirable responses, such as the ERPS. An example of an item on the MC-10 is, "I like to gossip at times". Responses on each item were in true/false format and participants obtain an overall score ranging from 0 to 10, with higher scores representing more socially desirable responding. This version of the 10-item short-form has been shown to be the more effective for measuring social desirability when compared to other short-forms and the 33-item original (Fischer & Flick, 1993). Internal consistency of the MC-10 has ranged from alphas of .59 (Strahan & Gerbasi, 1972) to .73 (Thompson & Phua, 2005). The MC-10 also has high convergence with the original social desirability scale ($r = .96, p < .05$). In the current study, internal consistency was low ($\alpha = .46$), therefore indicating that the instrument was not reliable in the current sample.

Procedure

All parents contacted the researcher through email to indicate interest in participating in the study. Parents accessed the questionnaires via an internet webpage. After consenting to participate (see Appendix C), parents were presented with one questionnaire at a time in the same order, beginning with the demographic information questionnaire, followed by the ERPS, the RCADS-P, the PBA-Q, the CCNES, the DASS-21, and the MC-10. Counterbalancing the questionnaires was not possible for the online study format, so the order was standardized for all participants. These questionnaires required approximately 25 to 50 minutes of the parent's time. Following the completion of the final questionnaire, participants were directed to a page which ensured that they were compensated for their participation, an opportunity to enter their name for the bonus mark or the drawing for the certificate. For those who entered their name for compensation, all personally-identifying data were stored in a file that was separate from parents' responses on the questionnaires, so as to ensure confidentiality.

CHAPTER IV

RESULTS

Overview of Data Analyses

The analyses are divided into three sections. The first section reports the results of the preliminary analyses on outliers and assumptions, as well as reporting descriptive statistics for the dependent and independent variables. In the second section, results of the analyses assessing potential control variables are discussed. The third section describes the findings from the main analyses, divided into each of the four main hypotheses. Bivariate correlations were used to analyze the first hypothesis, while hierarchical regressions were used to test hypotheses two and three. In the fourth hypothesis, a mediational model was tested.

Preliminary Analyses

Missing data and outliers. Mean substitution was used for data that were missing at random and that did not affect the overall outcomes or assumption testing when the cases were removed from analyses. Data were then examined for outliers, and two statistical outliers were found, as their z -scores were greater than two ($z = 3.28$, $z = 2.30$). Upon visual inspection of the outliers, one participant had elevated scores on child anxiety and one had elevated scores on parental beliefs about anxiety. In a nonclinical sample, elevated scores are to be expected on some measures as variants within the normal range. To assess whether these outliers reflected a response set bias, participants' scores on the other measures were assessed to see if they also showed large variability in a similar direction. For both of these participants, their other scores did not show a pattern that indicated a response set. Therefore, the two outliers were retained in the sample.

Assumptions of multiple regression. The data were screened for the assumptions of multiple regression. The Durbin-Watson test was used to assess and confirm the assumption of independence of errors. Skewness and kurtosis values indicated that normality assumption was met, except for the Parental Beliefs about Anxiety Questionnaire where kurtosis was slightly elevated ($z = 4.57$). All skewness values fell in range (from 1.68 to $-.70$). Multicollinearity was assessed through the statistics of tolerance and Variance Inflation Factor (VIF) values. VIF scores ranged from 1.02 to 1.05 and tolerance values ranged from $.95$ to $.98$; therefore, it was determined that multicollinearity was not present in the data. Visual inspection of plotted standardized residuals by standardized predicted values was used to assess homogeneity of variance. The data appeared to be slightly heteroscedastic; however, this was expected to have little effect on significance testing, as Type 1 error should not be inflated (Berry & Feldman, 1985). Nevertheless, transformations of the data were attempted but made little difference in improving the homoscedasticity; therefore, the untransformed variables were used in the data analyses. Means and standard deviations were calculated for all variables and are presented in Table 3.

Potential Control Variables

Parent anxiety. To assess whether levels of parent anxiety should be controlled for in the main analyses, bivariate correlations were conducted between the anxiety subscale of the DASS-21 and the outcome variables. Parent anxiety was significantly associated with greater child anxiety ($r = .70, p < .001$) and less unsupportive coping socialization ($r = -.32, p < .05$).

Table 3

Means and Standard Deviations for All Measures

	<i>M</i>	<i>SD</i>
Emotion-Related Parenting Styles		
Emotion Coaching	20.64	3.42
Parental Rejection of Negative Emotion	12.19	3.37
Parental Acceptance of Emotion	15.63	4.77
Feelings of Uncertainty/Ineffectiveness	10.60	3.78
Parental Beliefs about Anxiety	28.37	7.00
Revised Child Anxiety and Depression Scale		
Child Anxiety	17.78	10.30
Child Depression	3.27	3.18
Coping with Children's Negative Emotions Scale		
Supportive Coping	15.22	2.89
Unsupportive Coping	7.42	1.67
Depression, Anxiety, and Stress Scale		
Parent Anxiety	1.85	2.41
Parent Stress	4.37	3.32
Parent Depression	2.07	3.10

Therefore, subsequent analyses were conducted both with and without parent anxiety as a covariate in order to better understand the role of this variable in accounting for variance in the outcome variables.

Social desirability. Although the Marlowe-Crowne Social Desirability Scale – 10-item version had low reliability, bivariate correlations were conducted between social desirability and the outcome variables. All correlations were nonsignificant (all $r_s < .14$, $p_s > .27$) and so social desirability was not used as a covariate in subsequent analyses.

Child age and gender. Because of the broad range of children's ages, child age also was tested as a possible control variable using correlations between child age and the outcome variables. Child age was not significantly correlated with child anxiety, supportive coping or unsupportive coping (all $r_s < .21$, $p_s > .12$) and therefore was not controlled for in subsequent analyses. Independent t -tests also were conducted to examine possible differences in the independent and dependent variables between male and female children. The t -tests were also nonsignificant ($t_s < .96$, $p_s > .34$); therefore, parents were not responding differently based on their children's gender and this variable was not controlled for in further analyses.

Parent demographic characteristics. Parent demographic variables also were tested as potential control variables. Correlations were conducted between outcome variables and parent age, number of children, education level, and income. None of the correlations reached significance (all $r_s < .24$, $p_s > .07$); therefore, these variables were not controlled for in subsequent analyses.

Independent sample t -tests were conducted to compare mothers and fathers on the all independent and dependent variables, as well as on the covariate of parent anxiety.

The t-tests revealed no differences between parent gender ($ts < 1.75, ps > .09$). Because mothers and fathers did not significantly differ in their responses on any of the questionnaires, parent gender was not used as a control variable.

Parent ethnicity also was assessed as a possible covariate. A one-way ANOVA analysis was conducted to compare parental ethnicity (excluding Latin American and Asian due to a low sample size) in relation to the outcome variables. There were no significant differences between ethnicity groups for child anxiety ($F[5,50] = 1.77, p > .05$) or for supportive coping ($F[5,50] = 1.34, p > .05$). There was, however, a significant difference between ethnicity groups for unsupportive coping ($F[5,50] = 6.19, p < .01$). A post hoc analysis using Tukey's HSD, revealed that individuals who reported their ethnicity as Black perceived themselves as using significantly more unsupportive coping socialization strategies than individuals who reported their ethnicity as White. Because differences were found for only two ethnicity groups that had a large discrepancy between their sample sizes (32 vs 9), and because this difference lacked a strong theoretical basis why this difference existed, it was decided to not to control for ethnicity in subsequent analyses.

Main Analyses

Parental beliefs about anxiety and child anxiety. Zero-order correlations of the study variables are presented in Table 4. In the first hypothesis, it was predicted that higher levels of parental beliefs about anxiety would be associated with higher levels of child anxiety. Correlations revealed a significant positive correlation ($r = .42, p < .01$) between these two variables. However, when controlling for parental symptoms of

anxiety using partial correlations, the relation between parental beliefs about anxiety and child anxiety became nonsignificant ($r = .18, p = .19$).

Other correlations between variables revealed notable associations. Parental beliefs about anxiety (that is, more maladaptive beliefs) also was associated with less supportive coping. As would be expected, greater emotion coaching was associated with more supportive coping and less unsupportive coping. In contrast, higher parental rejection of negative emotion and greater child anxiety were associated with higher levels of unsupportive coping. Unsupportive coping and supportive coping were inversely related, which would be expected; however, emotion coaching and parental rejection of negative emotion were not significantly associated, indicating that they are not merely opposites of the same construct.

Emotion-related parenting styles and parental beliefs about anxiety as predictors of child anxiety. In hypothesis 2, it was predicted that emotion-related parenting styles would interact with parental beliefs about anxiety in predicting levels of child anxiety. A hierarchical regression analysis was conducted to test this hypothesis. First, the variables were centred to help prevent potential statistical problems by subtracting the mean of each scale from each parent's score on the measure. Multiplying the centred emotion coaching variable by the centred parental beliefs about anxiety score created one interaction variable, while multiplying the centred parental rejection of negative emotion variable by the centred parental beliefs about anxiety score created the second interaction variable. In step 1 of the hierarchical regression, the centred variables of parental beliefs about anxiety, parental rejection of negative emotion, and emotion coaching were entered, with child levels of anxiety as the outcome variable.

Table 4

Zero-order Correlations Between Variables in the Study

Variable	1	2	3	4	5	6	7	8
1. Child Anxiety	---	-.18	.37**	.42**	-.19	.27*	.08	.34**
2. Supportive Coping		---	-.30*	-.30*	.64**	-.13	.52**	-.17
3. Unsupportive Coping			---	.10	-.33**	.41**	-.28*	.38**
4. Parental Beliefs about Anxiety				---	-.18	.13	-.29*	.05
5. Emotion Coaching					---	-.08	.22	-.15
6. Parental Rejection of Negative Emotion						---	-.34**	.48**
7. Parental Acceptance of Emotion							---	-.07
8. Parental Uncertainty/Ineffectiveness								---

Note. * $p < .05$. ** $p < .01$.

The two interaction variables were entered at step 2.

As seen in Table 5, the model was significant ($R^2 = .33$, $F[5,57] = 5.07$, $p < .01$). There was a main effect of parental rejection of negative emotion, where higher levels of parental rejection of negative emotion predicted greater child anxiety. The interaction of emotion coaching and parental beliefs about anxiety was also significant, where the combination of greater parental beliefs about anxiety and low emotion coaching predicted greater child anxiety. When the covariate of parent anxiety was entered into the model, however, the main effect of parental rejection of negative emotion only approached significance ($p = .06$; see Table 6). The interaction between emotion coaching and parental beliefs about anxiety continued to be a significant predictor. Also, the model remained significant when parent anxiety was controlled, with parent anxiety accounting for a large proportion of the variance in child anxiety ($R^2 = .58$, $F[6,57] = 11.84$, $p < .01$).

Emotion-related parenting styles and parental beliefs about anxiety as predictors of coping socialization. In hypothesis 3, it was predicted that parents who practice more adaptive emotion-related parenting styles and hold less maladaptive parental beliefs about anxiety would suggest more supportive coping strategies for their children when dealing with emotional situations. Conversely, it was also expected that parents who practice more maladaptive emotion-related parenting styles and hold more maladaptive beliefs about anxiety would suggest more unsupportive coping strategies.

Table 5

Hierarchical Multiple Regression Analyses Predicting Levels of Child Anxiety from Parental Beliefs about Anxiety and Emotion-Related Parenting Styles

Predictor	ΔR^2	β
Step 1	.24**	
PBA		.20
PR		.31**
Emotion Coaching		-.02
Step 2	.09*	
PBA \times PR		-.03
PBA \times Emotion Coaching		-.36**
Total R^2	.33**	
n	58	

Note. PBA = Parental beliefs about anxiety. PR = Parental rejection of negative emotion. All predictor and interaction variables were centred.
* $p < .05$. ** $p < .01$.

Table 6

Hierarchical Multiple Regression Analyses Predicting Levels of Child Anxiety from Parental Beliefs about Anxiety and Emotion-Related Parenting Styles when Controlling for Parent Anxiety

Predictor	ΔR^2	β
Step 1	.50**	
Parent Anxiety		.63**
Step 2	.03	
PBA		-.04
PR		.19 [†]
Emotion Coaching		.11
Step 3	.06*	
PBA × PR		-.19 [†]
PBA × Emotion Coaching		-.22*
Total R^2	.58**	
n	58	

Note. PBA = Parental beliefs about anxiety. PR= Parental rejection of negative emotion. All predictor and interaction variables were centred.
[†] $p < .10$. * $p < .05$. ** $p < .01$.

To examine whether the interaction between parental beliefs about anxiety and emotion-related parenting styles predicted supportive coping socialization, hierarchical regressions were conducted. As with the previous regression analyses, all variables were centred prior to their inclusion in the regression and the interaction variables were as follows: parental beliefs about anxiety and emotion coaching, and parental beliefs about anxiety and parental rejection of negative emotion. The model was significant, ($R^2 = .45$, $F[5,57] = 8.54$, $p < .01$), and a main effect of emotion coaching emerged, in which greater emotion coaching predicted more supportive coping (see Table 7). No other main effects or interactions were significant predictors of supportive coping. When parent anxiety was used as a covariate in the analyses, the model still remained significant ($R^2 = .45$, $F[6,57] = 7.07$, $p < .01$) and greater emotion coaching remained as a significant predictor of greater supportive coping (see Table 8).

The parental beliefs about anxiety and emotion-related parenting styles also were examined in relation to unsupportive coping socialization. The same predictors used in the hierarchical regression on supportive coping were used in this analysis. The model was significant, ($R^2 = .26$, $F[5,57] = 3.68$, $p < .01$), yet the interactions did not predict unsupportive coping socialization. Main effects were found of parental rejection of negative emotion and emotion coaching, such that both lower emotion coaching and higher parental rejection of negative emotion predicted greater unsupportive coping (see Table 7). For the analysis in which parental anxiety was added as a covariate, the model remained significant ($R^2 = .28$, $F[6,57] = 3.31$, $p < .01$) with greater parental rejection of negative emotion predicting more unsupportive coping. The association between greater emotion coaching and less unsupportive coping approached significance (see Table 8).

Table 7

Hierarchical Multiple Regression Analyses Predicting Supportive and Unsupportive Coping Socialization from Parental Beliefs about Anxiety and Emotion-Related Parenting Styles

Predictor	Outcome Variables			
	Supportive Coping		Unsupportive Coping	
	ΔR^2	β	ΔR^2	β
Step 1	.45**		.26**	
PBA		-.16		-.06
PR		-.07		.41**
Emotion Coaching		.58**		-.28*
Step 2	.01		.01	
PBA \times PR		-.004		-.06
PBA \times Emotion Coaching		.08		-.06
Total R^2	.45**		.26**	
n	58		58	

Note. PBA = Parental beliefs about anxiety. PR = Parental rejection of negative emotion. All predictor and interaction variables were centred.

* $p < .05$. ** $p < .01$.

Table 8

Hierarchical Multiple Regression Analyses Predicting Levels of Child Anxiety from Parental Beliefs about Anxiety and Emotion-Related Parenting Styles when Controlling for Parent Anxiety

Predictor	Outcome Variables			
	Supportive Coping		Unsupportive Coping	
	ΔR^2	β	ΔR^2	β
Step 1	.06 [†]		.08*	
Parent Anxiety		.07		.17
Step 2	.39**		.19**	
PBA		-.18		-.12
PR		-.09		.37**
Emotion Coaching		.60**		-.25 [†]
Step 3	.01		.01	
PBA × PR		-.02		-.10
PBA × Emotion Coaching		.10		-.02
Total R^2	.45**		.16 [†]	
n	58		58	

Note. PBA = Parental beliefs about anxiety. PR = Parental rejection of negative emotion.

[†] $p < .10$. * $p < .05$. ** $p < .01$.

Mediation analyses. In hypothesis 4, it was expected that parental cognitions would translate into parental behaviours that would influence child anxiety. It was therefore predicted that parental coping socialization would mediate the association between parental cognitions (as measured by parental beliefs about anxiety, emotion coaching and parental rejection of negative emotion) and levels of child anxiety. As there were two measures for parental coping socialization, supportive and unsupportive coping, both were examined separately as possible mediators. First it was assessed whether supportive coping socialization could be used in a mediational model. Supportive coping was not related to child anxiety ($r = -.18, p > .10$); therefore, a mediation model with supportive coping could not be tested.

Next, unsupportive coping was assessed as a possible mediator for the relationships between the three variables assessing parental thoughts (emotion coaching, parental rejection of negative emotion and parental beliefs about anxiety) and child anxiety. Parental beliefs about anxiety was not significantly associated with the potential mediator of unsupportive coping ($r = .10, p > .10$), and emotion coaching was not associated with the outcome variable of child anxiety ($r = -.19, p > .10$). Therefore, neither one of these predictor variables were tested in a mediation model.

Parental rejection of negative emotion was significantly positively correlated with both child anxiety ($r = .27, p < .05$) and unsupportive coping ($r = .41, p < .01$) and therefore could be used to test a mediational model. Using Preacher and Hayes' (2004) bootstrapping approach to test indirect effects, parental rejection of negative emotion was used as the predictor variable, unsupportive coping as the mediator variable, and child anxiety as the outcome variable. The direct pathway was established as greater parental

rejection of negative emotion was a significant predictor of greater child anxiety ($t[58] = 2.13, p < .05$). Next, the indirect associations were tested. Higher parental rejection of negative emotion predicted more unsupportive coping ($t[58] = 3.34, p < .01$) and more unsupportive coping was a significant predictor of greater child anxiety when parental rejection of negative emotion was partialled out ($t[58] = 2.29, p < .05$). When controlling for the effects of unsupportive coping, parental rejection of negative emotion was no longer a significant predictor of child anxiety ($t[55] = 1.08, p = .28$). Therefore, unsupportive coping was found to mediate the relation between parental rejection of negative emotion and child anxiety (see Figure 1 for the path model).

Given the association between the variables of parent and child anxiety, the mediational model was again tested while controlling for parent anxiety. Preacher and Hayes' (2008) bootstrapping approach to test indirect effects in multiple mediator models was used, which allowed for the addition of the parent anxiety covariate. The results of this analysis indicated that the mediational model was no longer significant. Specifically, the direct pathway between parental rejection of negative emotion and child anxiety disappeared ($t[58] = 1.16, p = .25$). The indirect pathways also changed. While higher parental rejection of negative emotion still predicted greater unsupportive coping ($t[58] = 2.90, p < .01$), the pathway between unsupportive coping and child anxiety became nonsignificant ($t[58] = 1.58, p = .12$).

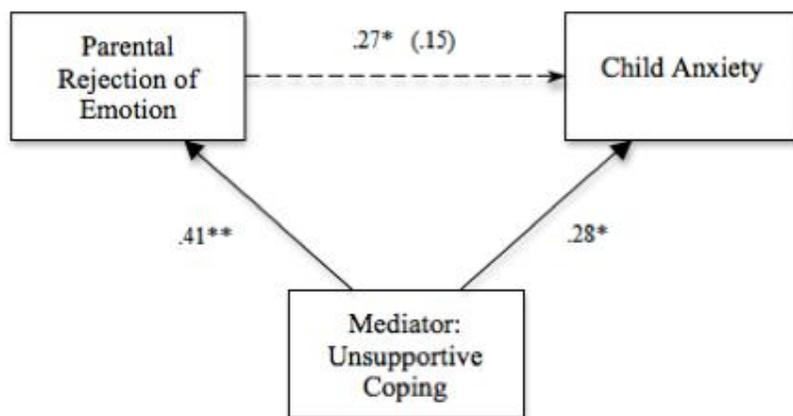


Figure 1. Path model with standardized coefficients demonstrating that unsupportive coping mediated the relation between parental rejection of negative emotion and child anxiety. The value within parentheses represents the coefficient for the unmediated relation between the independent and dependent variables. * $p < .05$. ** $p < .01$.

CHAPTER V

DISCUSSION

The primary aim of the current study was to examine whether emotion-related parenting styles and parental maladaptive beliefs about anxiety predicted children's level of anxiety and parental coping socialization. Furthermore parental coping socialization was tested as a behavioural mediator in the relation between parents' cognitions about children's emotions and levels of child anxiety. The findings of this study suggested that: (1) child anxiety was predicted by the combination of low emotion coaching and high parental beliefs about anxiety, even when controlling for parent anxiety, (2) regardless of levels of anxiety in parents, higher emotion coaching predicted more supportive coping and higher parental rejection of negative emotion predicted greater unsupportive coping, and (3) unsupportive coping mediated the relationship between parental rejection of negative emotion and child anxiety but not when taking into account parent anxiety.

Parental Cognitive Characteristics and Child Anxiety

The first hypothesis, that parental beliefs about anxiety would be associated with children's level of anxiety, was partially supported. It was found that the more maladaptive beliefs parents hold about their child's experience of anxiety, the higher the levels of anxious symptoms in their child. However, when accounting for parent anxiety, the relation between parental beliefs about anxiety and child anxiety no longer remained. This stands in contrast to previous research that has found the association between parental beliefs about anxiety and child anxiety to remain significant after controlling for symptoms of parent anxiety (Francis & Chorpita, 2010b). More specifically, parental

beliefs about anxiety was found to mediate the relationship between parent anxiety and child anxiety in a clinical population, suggesting that parental beliefs about anxiety may be one variable that plays a role in the relation between parental and child anxiety (Francis & Chorpita, 2010b).

There may be a number of reasons for the discrepant findings between the two studies. First, clinical status may be factor. Francis and Chorpita used a population of clinically-referred children and their parents, where approximately 45% of the children had a diagnosis of an anxiety disorder. The sample used in the current study was nonclinical with no report of any child having a diagnosis of anxiety. Because of the incidence of anxiety in the clinical sample, it is possible that the parents' anxiety also was elevated compared to those in the nonclinical sample. While parental beliefs about anxiety play an important role in child anxiety in a clinical population, it may not be as strong in a community sample where children are more likely to not be clinically anxious. It may be that parents within the clinical sample translate their maladaptive beliefs about anxiety into more of their behaviours and because their children may be experiencing more frequent and intense symptoms of anxiety, parents' beliefs about anxiety, and the resulting behaviours, are more prevalent. This suggests that the relation between parental beliefs about anxiety and child anxiety is more complex than previously expected, especially within a nonclinical population.

The difference in children's ages may also help to explain inconsistency between the current study and Francis and Chorpita's (2010b) study. In the present study, the mean age of the participants' children was 6.38, with a range of 3 to 12 years. In Francis and Chorpita's research, the age of the children ranged from 6 to 17, with a mean age of

12.78. It has been suggested that younger children are less susceptible to environmental influences (e.g., parenting styles) which may effect anxiety compared to older children (Bolton et al., 2006; Laskey & Cartwright-Hatton, 2009). For instance, Perez-Olivas, Stevenson, and Hadwin (2008) found children's high awareness and vigilance for threat related to greater levels of anxiety, but only for children over 10. Environmental factors may take longer to affect younger children because of maturation – they may not have yet developed the cognitive capacity necessary to be influenced by environmental factors (Kindt, Brosschot, & Everaerd, 1997). Therefore, age may have played a role in the current study as parent beliefs and perceived behaviours did not reveal more robust findings in relation to child anxiety as expected. Parental beliefs about anxiety may have a greater association with child anxiety when children are older as environmental factors begin to play more of a role in the development and maintenance of symptoms associated with anxiety.

The second hypothesis predicted that emotion-related parenting styles and parental beliefs about anxiety would interact to predict levels of child anxiety. The hypothesis was partially supported as the results revealed that parents with both lower emotion coaching and higher parental beliefs about anxiety predicted greater child anxiety. Contrary to predictions, the combined effects of parental beliefs about anxiety and parental rejection of negative emotion did not account for the relation of child anxiety, but there was a main effect of rejection of emotion when parent anxiety was not controlled. This suggests that when combination of emotion coaching and parental beliefs about anxiety is present, specifically when both low emotion coaching and high maladaptive beliefs about anxiety are present together, children may have greater levels

of anxiety. It appears that low emotion coaching may act as a risk factor when in combination with maladaptive parental beliefs about anxiety.

These findings are consistent with previous research that has demonstrated the combined effects of low emotion coaching with other risk factors on child outcomes. Lunkenheimer and colleagues (2007) noted that high levels of child anxiety could be predicted when parents were low on emotion coaching and high on emotion dismissing. It may be that the presence of low emotion coaching alone may not predict child anxiety but the presence of low emotion coaching and the presence of maladaptive parental beliefs about anxiety may predict child anxiety. Therefore, it can be concluded that presence of negative parenting beliefs (i.e., parental beliefs about anxiety), as well as the presence of low positive emotion-related parenting styles (i.e., emotion coaching) may be more associated with childhood anxiety rather than just the presence of negative parenting variables.

The current findings have implications for the understanding of the association between parent cognitions and child anxiety. The current study suggests that cognitions specific to anxiety are not sole predictors of child anxiety in a nonclinical population; how parents approach emotions in general may be an important factor in this association. When parents do not often believe in creating a positive environment for emotion expression, children may (a) bottle up and not express their negative emotions, and may not learn how to properly regulate their emotional experiences, and (b) learn that feelings related to anxiety are bad, and therefore may perpetuate worry themselves when experiencing anxious feelings. In a younger, nonclinical sample similar to that of the

present study, if their parents hold maladaptive parental beliefs about anxiety, yet are good emotion coaches, children may not experience anxiety-related symptoms.

Taken together, these findings support previous research in suggesting that the more that parents hold adaptive beliefs about emotions, the better the emotional adjustment of the child (Alloy et al., 2001; Creswell & O'Conner, 2006; Creswell, et al., 2006; Eisenberg, et al., 1998; Francis & Chorpita, 2010b; Gottman et al. 1997). In particular, it appears that the most adaptive combination of parenting styles to buffer against anxiety problems in children is having parents high on emotion coaching (Gottman et al. 1997; Katz & Hunter, 2007; Stocker et al., 2007) and low on parental beliefs about anxiety (Francis & Chorpita, 2010b).

Parental Coping Socialization

The third hypothesis predicted that parents' emotion-related parenting styles (emotion coaching and parental rejection of negative emotion) would interact with parental beliefs about anxiety to predict coping socialization, but this hypothesis was not supported. Supportive coping represents parents' adaptive approach to socializing coping, using problem-solving, emotion-related reactions, or emotionally expressive responses to assist in their child's coping with emotion-provoking situations. On the other hand, unsupportive coping socialization may include parent perceived behaviours such as dismissing or minimizing their children's experience of negative emotion. Although the interactions did not predict supportive or unsupportive coping socialization, main effects were noted regardless of the presence of parent anxiety. Specifically, greater emotion coaching predicted more supportive, adaptive coping, and in contrast, unsupportive coping was predicted by greater parental rejection of negative emotion.

These findings suggest that when a child is experiencing negative emotions such as sadness, anger, or distress, the parents who believe that children's emotional experiences are important and that children should experience negative emotion, may foster a supportive coping socialization environment for children to work through their feelings and thoughts about the negative experience. Conversely, parents are more likely to practice an unsupportive coping socialization style when they hold the beliefs that their children's negative emotions should be dismissed and rejected. Taken together, it appears that adaptive and supportive beliefs about negative emotions (i.e., emotion coaching) relate to positive coping socialization but not maladaptive beliefs about negative emotions (i.e., parental rejection of negative emotion and parental beliefs about anxiety). Negative and maladaptive beliefs about emotions relate to unsupportive, maladaptive ways of socializing coping.

The current findings fall in line with previous research surrounding emotion socialization. Research has suggested that parents who are emotion coaches help their children to cope adaptively with emotional experiences (e.g., Gottman et al., 1997, Eisenberg, et al., 1998). Parents who practice emotion coaching accept and validate their children's emotions, and view their children's emotional arousal as an opportunity for emotional connectedness and teaching (e.g., Gottman, 1997). Thus, emotion coaching parents tend to react supportively (e.g., use adaptive problem- or emotion-focused reactions) to their children's emotion experiences and help their child cope with emotion-provoking situations (Eisenberg et al., 1998; Gottman et al 1996, 1997). With respect to unsupportive coping, research has found that parents of anxious children use more unsupportive coping socialization styles, such as using avoidance to respond to

ambiguous anxiety-provoking situations (Barrett et al., 1996; Dadds et al., 1996; Chorpita et al., 1996). It was surprising that in the current study, parental beliefs about anxiety did not relate to parents' coping socialization. However, as highlighted previously, parental beliefs about anxiety may have more explicit and detrimental effects when children are clinically anxious or when children are older. Furthermore, lack of association between unsupportive coping socialization and parental beliefs about anxiety may be in part due to the nonclinical status of the sample. Given that the present sample was nonclinical, parental beliefs about anxiety may have had a restricted range. This may have resulted in not enough variability and more normative beliefs to find any relation between the two variables. In a clinical sample, there may be more maladaptive parental beliefs about anxiety on average, thus children in this sample may have more exposure to maladaptive parenting behaviours, such as unsupportive coping socialization.

In sum, the interactions between parental beliefs about anxiety and emotion-related parenting styles did not predict coping socialization. Nevertheless, high emotion coaching predicted greater supportive coping and greater parental rejection of negative emotion predicted greater unsupportive coping. These findings help to support the connection between parental cognitions (i.e., emotion coaching and parental rejection of negative emotion) and parental perceived socialization behaviours (i.e., supportive and unsupportive coping socialization).

Parental Rejection of Negative Emotion, Coping Socialization and Child Anxiety

The fourth hypothesis, that the behaviour of parental coping socialization would mediate the association between parental cognitions and child anxiety was partially supported. Because maladaptive parental cognitions, such as parental rejection of

negative emotion, predicted levels of child anxiety, it would be expected that there is a behavioural component influencing this relation, such as coping socialization, where parents' cognitions are being translated into behaviours. Also, given that parental rejection of negative emotion was significantly associated with the unsupportive way in which parents reported assisting their children with coping with emotion-provoking situations, unsupportive coping socialization was expected to mediate the relation between parental rejection and levels of child anxiety. The mediational model was significant, where greater parental rejection of negative emotion was associated with a greater proportion of maladaptive coping suggestions, which lead to higher levels of anxiety in children. However, when parental anxiety was controlled, the mediational model no longer remained significant.

Unsupportive coping may be facilitating the transfer of harmful, dismissing beliefs about negative emotions, which in turn, affects child anxiety; however, parental anxiety appears to be playing a more important part in this relationship. Recent studies have suggested that genetics play a large role in child anxiety, with environmental factors, such as parenting characteristics, explaining a small but significant proportion of variance (e.g., Hallett, Ronald, Rijdsdijk, & Eley, 2009; Ogliari et al., 2010). It is possible that coping socialization did not mediate the relation between parental rejection of negative emotion and child anxiety because the levels of anxiety in the young children in the study may have been more influenced by genetics.

Although genetics may be one explanation of the strong relation between child and parent anxiety, it also could be that parent anxiety leads the parents to act and react in a certain way to situations. In those same situations, children may be engaging in social

referencing with their parents by looking to see how to feel or act in that situation.

Through social referencing or modelling, children may learn from their parents' anxious response how to react anxiously in situations. Even in young infants, Murray et al. (2008) found that social referencing influenced anxiety-like responses. Specifically, infant boys of socially-anxious mothers, who themselves showed responses of anxiousness, showed more fear responses to strangers compared to infants of non-socially-anxious mothers. In an older population of children, research has found that parental modelling of fear predicts children's anxious responses (e.g., Muris, Steernemen, Macrckelbach, & Meesters, 1996). Therefore, the high association between parent anxiety and child anxiety may suggest that parent behaviours influence their children's level of anxiety, even when these behaviours are not directed toward the child.

Alternatively, in addition to parents own reactions to situations, there may be another parenting factor, other than coping socialization, that better explains the relation between parental cognitions and child anxiety. It has been suggested that unsupportive parenting behaviours may exacerbate problems with anxiety (Repetti, Taylor, & Seeman, 2002), which might suggest that other parenting behavioural components play more of a role in the development and maintenance of child anxiety than coping socialization, particularly in younger children.

Limitations and Future Directions

One limitation of the present study is shared method variance. Because parents were the only informants in the study, the association between parent characteristics and child anxiety has only been painted from the parent perspective. Although parent report of child anxiety has been found to be accurate (Cole, Hoffman, Tram, & Maxwell, 2000;

Silverman & Ollendick, 2005), many researchers have highlighted the occurrence of systematic biases in parent reports, such as when parents who have their own psychopathology over-pathologize their own child (e.g., Briggs-Gowan, Carter, & Schwab-Stone, 1996). Alternatively, parents without psychopathology, tend to underreport internalizing symptomology in their children (e.g., Cartwright-Hatton et al., 2006; Stallings & March, 1995). As a result, in nonclinical samples parents may underreport internalizing symptoms experienced by their children. In the present study, parents' over-pathologizing of child anxiety was not expected to be a problem because the scores of child anxiety were in the lower range, indicating less severe problems with anxiety overall. In the same respect, underreporting appeared not to be a problem as scores on the anxiety related measures did not average in the higher range, which would have indicated more problems on average.

Although collecting data from both parent and child is ideal, in a study examining younger children, it may not be possible to get ratings from the children. Rating scales are typically considered to be too difficult to follow for children below the age of eight or nine years (Albano & Silverman, 1996) and the average age of the children in the current study was approximately six years of age. Therefore, depending on parental reports for assessing anxiety in young children is necessary. Nevertheless, future research should utilize a multi-informant and multi-method approach for collecting data. Obtaining data from the child, a teacher or another adult, as well as the parents, would be an important direction to take. Similarly, it would be beneficial to conduct an observationally-based study. It has been proposed that using an observational method in emotion-related research is the gold standard (Klimes-Dougan & Zeman, 2007). It is believed that

observational studies reveal more accurate estimates of variance of parenting attributed to child anxiety when compared to self-report or parent-report measures (McLeod et al., 2007); therefore, it would be a positive direction to take with future research. Although an observational approach is not without its faults (e.g., participant reactivity, low feasibility, high cost), employing an observational method in addition to questionnaires or interviews would optimize research in the area of parent-child emotion research.

A second limitation is that the study focused unidirectionally, exploring parental characteristics that predicted child anxiety. It cannot be forgotten that parent-child interactions are complex and bidirectional. For instance, child temperament has been shown to influence parenting, such that parenting a child with high anxiety would be more difficult than dealing with a child with a docile, nonanxious temperament (Jaffe, Gullone, & Hughs, 2010). Therefore, it cannot be assumed that only parent cognitions and behaviours influence child development; the relationship is bidirectional. However, understanding and explaining bidirectionality was outside the scope of the current study. An area of future research may look to account for bidirectionality by also investigating child characteristics which may predict parent cognitions or behaviours.

The demographics of the sample also represent a relative limitation. The study consisted of mostly mothers; therefore, comparing mothers and fathers was difficult as fathers represented a small proportion of the sample. It is especially important for future research to explore the contributions of both parents in two-parent families. Even though there were no differences in mothers and fathers in this study, other studies have found differences, so it would be good to look at the triadic relationship between both parents and the child (e.g., Cassano, Perry-Parrish, & Zeman, 2007; Eisenberg et al., 1996;

Nelson, O'Brien, Blankson, Calkins, & Keane, 2009). Participants were also highly educated, and many were university students. As a result, generalizability may be limited. Future directions should aim to achieve a more diverse sample with respect to parent education and gender, in particular. This might allow for a wider range of cognitions surrounding emotions and coping socialization.

While variability of education and gender may have been limited, the sample used in this study was relatively more ethnically diverse than much of the research available in the area of child anxiety. While there was some evidence of ethnicity differences in the analysis of the unsupportive coping variable, comparisons between individual ethnic groups were difficult, as small *ns* were noted for many of the groups. Furthermore, examining ethnicity differences was outside the scope of the present study. Future research should look to explore the relations between ethnicity, parental cognitions and behaviours, and child anxiety. Research has noted that the way in which parents socialize emotion in children may be influenced by their culture (e.g., Trommsdorff & Rothbaum, 2008). For example, in a study comparing the emotion socialization practices in German and Japanese mother-child interactions during distressing situations, Trommsdorff and Friedlmeier (2010) found that the Japanese mothers were found to be more comforting and helpful, whereas German mothers were more likely to socialize distressing feelings.

As parental emotion socialization may differ across cultures, parental behaviours which relate to child anxiety may also vary. For instance, parental control, a behaviour often connected to child anxiety, has been considered normative and a good measure of adaptive parenting behaviour in Latin American and African American cultures (e.g., Halgunseth, Ispa, & Rudy, 2006; Hill, Bush, & Roosa, 2003; Varela et al., 2009). In these

cultures, parental control also has been viewed as a parenting behaviour that is necessary to teach and uphold family orientation, obedience and respect for authority (Marin & Marin, 1991; McAdoo, 1982). As a result, positive child outcomes of parent control have been noted, such as less antisocial behaviour (Brody & Flor, 1998) and feelings of increased positive emotions (Grusec, Rudy, & Martini, 1997). However, not all research has found ethnic differences in parental control. Two recent studies have found that parental control predicted child anxiety, regardless of the ethnic background of the families (Creveling, Varela, Weems, & Corey, 2010; Varela, Sanchez-Sosa, Biggs, & Luis, 2009). As parental control was only one parenting variable assessed in relation to ethnicity and child anxiety, future research should investigate the impact of ethnicity and culture on parenting cognitions and behaviours in relation to child anxiety.

Future research should also focus on assessing differences between parents of younger and older children. Particularly, it would be interesting to assess the relation of parental beliefs about anxiety and emotion-related parenting styles in younger and older children. As research has suggested that older children are more susceptible to environment influences, such as parenting practices (Laskey & Cartwright-Hatton, 2009), associations may differ.

The low internal consistency of the parental rejection of negative emotions subscale of the Emotion-Related Parenting Styles questionnaire is also a limitation. Generally, internal consistencies greater than $\alpha = .70$ are considered acceptable, however some researchers have argued that if a scale is comprised of fewer than 20 items, the acceptable lower limit may be decreased to $\alpha = .60$ (Nunnally, 1967; Dekovic, Janssens, & Gerris, 1991; Holden, Fekken, & Cotton, 1991). As this is also a new questionnaire,

and the internal consistency of the subscale nears this lower acceptable limit, it was not expected to be problematic within the sample. Furthermore, the relatively small sample size may have limited the internal consistency of the measure. Although initial power analyses indicated that sample size was adequate for the analyses used in the study, future studies should use larger sample sizes because it may improve the internal consistency of the parental rejection of negative emotions subscale and some of the findings which approached significance in this sample may be significant in a sample with a larger *n*.

Finally, a possible limitation may be that data were collected online. Because online research is relatively new, it is yet to be known whether data collected through online questionnaires correspond to data collected in person. Although online research allows for more anonymity, participants may feel less inclined to respond to all questions as expectations to please the researcher by completing the entirety of the study. They also may be less inclined to take time and effort to appropriately complete open-ended questions, than if completed in person. Not answering questions would lead to unnecessary missing data, whereas applying less effort to answer the questions would result in less accurate data. On the other hand, parents could have been more honest as anonymity was increased through the online process.

Practical Implications and Conclusions

In conclusion, the findings from the present study suggest that parents' beliefs and thoughts about emotions are associated with child anxiety. Specifically, parents who infrequently believe that experiencing negative emotions should be supported and expressed, while also believing that anxiety is a harmful emotion to experience, may have children with high levels of anxious symptoms, regardless of parent anxiety. Also, both

positive and negative emotion-related parenting styles, or the beliefs and feelings parents hold toward negative emotions, related to coping socialization practices. Specifically, parents who reported positive beliefs about emotion (i.e., emotion coaching parents) reported greater supportive coping and parents who reported negative beliefs about emotion (i.e., parents who reject children's negative emotions) reported greater unsupportive coping. In spite of the associations between emotion-related beliefs, child anxiety, and coping socialization, unsupportive coping socialization did not translate into a behavioural mechanism for which parent emotion-related beliefs related to child anxiety. Nevertheless, given that the interaction of emotion coaching and parental beliefs about anxiety still held even when accounting for the relation of parent anxiety, this suggests that there are environmental factors playing a role. If genetically predisposed to experience maladaptive levels of anxiety, it may be parenting factors that make the difference between normal variation of symptoms of anxiety and subclinical/clinical symptoms of anxiety.

Overall, the findings help to bridge the gap between child emotional development research and child clinical research in that parents' overall cognitive approach to emotion may be related to on children's anxiety symptoms. Although a great deal of research exists to support varying parent behaviours that may relate to child anxiety, most of the research exploring parent cognitions and child anxiety specifically have explored parent cognitions specific to anxiety (e.g., threat interpretations, beliefs about anxiety, expectations about threat). The findings of the present study suggests that the way in which parents approach negative emotions, in general, may be associated with anxious symptoms in young children.

Parents could benefit from learning how to become better emotion coaches, as well as understanding that symptoms related to anxiety are normal and will not lead to harmful, destructive consequences when experienced. When children experience anxiety, parents should work towards allowing their child to experience the anxiety, and not to escape or avoid the situation which may further the development of an anxiety disorder. Emotion coaching thoughts and related perceived behaviours (e.g., supportive coping) would be useful in situations where children are experiencing anxiety because parents can understand anxiety is a normal emotion to experience and help their children to adaptively and supportively deal with the emotion and situation by problem solving or discussing the emotion. This information may help inform prevention and treatment practices of childhood anxiety, as well as assist in the refinement of psychoeducational programmes for children and parents.

Many researchers and clinicians agree that cognitive behavioural therapy (CBT) for treatment of anxiety in children is efficacious (Cartwright-Hatton, Roberts, Chitsabesan, Fothergill, & Harrington, 2004; Chorpita & Daleiden, 2007). There has, however, been a debate on whether therapy involving parents is superior to just child-only treatment. While a number of studies have failed to demonstrate the effectiveness of including parents in the treatment of child anxiety (e.g., Bodden et al., 2008; Kendall, Hudson, Gosch, & Flannery-Schroeder, 2008; Siqueland, Rynn, & Diamond, 2005; Spence, Donovan, & Brechman-Toussaint, 2000), several studies state that parents do make significant improvements in the outcomes of treatment on child anxiety (e.g., Bögels & Siqueland, 2006; Cobham, Dadds, Spence & McDermott, 2010; Dadds, et al., 1999; Wood, Piacentini, Southam-Gerow, Chu, & Sigman, 2006; Wood, McLeod,

Piacentini, & Sigman, 2009). For instance, Creswell, Schniering, and Rapee (2005) found that after participating group treatment (child plus parents), which included cognitive restructuring, exposure, and skills training, there was a positive change in parent cognitions which related to changes in both children's interpretations of threatening situations and their symptoms of anxiety. Most recently, Cobham and colleagues (2010) found that after a three-year follow-up, children who participated in CBT plus parental anxiety management intervention were more likely to be free from an anxiety diagnosis, compared to children who received only the child-focused CBT. Family-based interventions also have been found to prevent anxious symptoms in children with anxious parents (Ginsburg, 2009). On the whole, the most recent research in the area of family treatment for child anxiety appears to suggest that addressing both parental characteristics, such as parent anxiety, and child anxiety may be the best way to prevent the development of or ameliorate the symptoms of anxiety in children (Gallagher & Cartwright-Hatton, 2009). The current study may also help to highlight a new direction of future research with respect to family treatment of child anxiety. Future studies could assess the effectiveness of emotion coaching or supportive emotion socialization training, in addition to child intervention to treat anxiety. This may be particularly relevant to younger children, as child-only interventions may be more difficult with this population because of their developmental stage (e.g., Lyneham & Rapee, 2006).

In a similar fashion to how family treatment of child anxiety could benefit from the current findings, using the findings to inform psychoeducation or parenting classes also would be beneficial. Many well-established and validated parenting skills programmes already exist (Webster-Stratton & Hammond, 1997), and with addition

information and understanding about the importance of teaching parents about how to think and deal with their children's emotions, these programs may even become more effective. By further exploring the implications for parenting classes and clinical applications we can help to prevent against the development and maintenance of childhood anxiety.

APPENDIX A

Participant Pool Advertisement

Study Name:	Parents' Thoughts About and Behaviours Toward their Children's Negative Emotions
Brief Abstract:	This study is designed to assess parents' beliefs, feelings and perceived behaviours surrounding their child's experience of negative emotions such as sadness, worry, and fear.
Detailed Description:	For this study, you will answer questions about yourself and your child. The questions are related to how you feel about your child's experience of negative emotions, how you would act in certain situations, and how often you and your child experience a number of emotions and thoughts. This is an online study.
Access to Study:	To obtain the username and password needed to access the study, please contact the researcher at duffett@uwindsor.ca
Eligibility Requirements:	Participants must have a child between the ages of 4 and 12. You are not eligible to participate if you do not. You may not complete this study if: <ul style="list-style-type: none">• You cannot read or speak English• Your child has a developmental disability which includes but is not limited to, Autism Spectrum Disorder (ASD) and Down Syndrome
Duration:	60 minutes
Points:	1 Point
Researcher:	Megan Duffett duffett@uwindsor.ca

APPENDIX B

Flyer for Daycares



Are you a parent with a child between the ages of 4 and 12 years old?



I am a graduate student in Child Clinical Psychology who is looking for parents with a child between the ages of 4 and 12 who does not have a developmental disability (such as Autism Spectrum Disorder (ASD), Down Syndrome, etc.) to participate in my study *Parents' Thoughts About and Behaviours Towards Their Children's Negative Emotions*. I am examining parents' beliefs, feelings and perceived behaviours surrounding their children's experience of negative emotions, such as sadness, worry, and fear. If you choose to participate, you would fill out a 25-45 minute confidential online survey. For your participation, you will be eligible to be entered into a draw to receive a \$50 gift certificate from Toys R Us.

To participate, please contact: Megan Duffett
duffett@uwindsor.ca

Department of Psychology, University of Windsor

This study has received ethics clearance from the University of Windsor's Research Ethics Board.

APPENDIX C

Consent Form



CONSENT TO PARTICIPATE IN RESEARCH

Parents' Thoughts About and Behaviours Toward their Children's Negative Emotions

You are asked to participate in a research study conducted by Megan Duffett (M.A. Student), under the supervision of Dr. Kim Babb (Professor), from the Department of Psychology at the University of Windsor. The results of this study will contribute to Ms. Duffett's M.A. thesis.

If you have any questions or concerns about the research, please feel free to contact Megan Duffett at duffett@uwindsor.ca or Dr. Kim Babb at kbabb@uwindsor.ca.

PURPOSE OF THE STUDY

This study is designed to assess parents' beliefs, feelings, and perceived behaviours surrounding their child's experience of negative emotions such as sadness, worry, anger, and fear.

PROCEDURES

If you volunteer to participate in this study, we would ask you to do the following things:

- Fill out a series of questionnaires related to:
 - How you feel about your child's experience of negative emotions such as sadness, worry, anger, and fear.
 - How you would act in certain situations in which your child experiences negative emotions.
 - How often you and your child experience a number of emotions and thoughts.
- Read a post-study information form

Total time spent: 60 minutes

Location: Completed on the internet

You will not be contacted for follow-up sessions.

POTENTIAL RISKS AND DISCOMFORTS

This study does not have any major risks, except that you may experience some negative feelings (e.g., anxiety, sadness, fear) in response to examining your thoughts surrounding your child's experience of negative emotions, and your perceptions of your parenting practices. However, you do not have to answer any questions that you do not feel comfortable answering.

POTENTIAL BENEFITS TO PARTICIPANTS AND/OR TO SOCIETY

This study asks parents to think about their thoughts, feelings and perceived behavior surrounding their child's experience of negative emotion. By responding to the questionnaire items, participants may learn more about their parenting styles and beliefs surrounding their child's emotions.

Participants also will gain experience of being a part of the research process.

The results of this study will be used to inform future research about parenting and emotional development in children. The results may be used to improve interventions and treatment planning for children with emotional problems.

PAYMENT FOR PARTICIPATION

If you are enrolled in a psychology course that offers bonus points for participating in psychology research studies, you will receive 1.0 bonus credit point for completing this 60-minute survey.

CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission. Your identity will be used to assign you participation marks and will be used on this consent form. Data will be stored on a computer and coded with a random identification number to increase confidentiality. Data will be kept in a secure file to which only the researchers will have access. No information that discloses your identity will be released or published without your specific consent for disclosure. No confidential records will be consulted. The data being collected will be kept separate from potential identifiers, like consent forms. In accordance with the American Psychological Association, your data will be kept for five years following the last publication of the data. By law, an exception to confidentiality is that researchers must report to authorities any suspected cases of abuse or neglect.

PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. To withdraw, you may

select WITHDRAW DATA, which will be found at the bottom left hand corner of every questionnaire. At any time if you select WITHDRAW DATA, you will be asked to answer a question pertaining to compensation, you will be provided with the letter of information, and you will be directed to a page outlining the steps necessary to clear your browser history. You may also refuse to answer any questions you do not want to answer and still remain in the study. Your participation in this study is completely voluntary. If you choose to participate, you have the right to discontinue your participation at any time during or directly after this survey, even after providing consent. Should you choose not to participate or choose to stop once you have begun, you will do so without penalty of any kind. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

FEEDBACK OF THE RESULTS OF THIS STUDY TO THE PARTICIPANTS

Research findings will be available to participants at the completion of the project at www.uwindsor.ca/reb under 'Study Results'. Findings will be available by October 31st, 2010.

SUBSEQUENT USE OF DATA

These data may be used in subsequent studies.

RIGHTS OF RESEARCH PARTICIPANTS

You may withdraw your consent at any time and discontinue participation without penalty. If you have questions regarding your rights as a research subject, contact: Ethics Coordinator, University of Windsor, Windsor, Ontario, N9B 3P4; Telephone: 519-253-3000, ext. 3948; e-mail: ethics@uwindsor.ca

SIGNATURE OF RESEARCH SUBJECT/LEGAL REPRESENTATIVE

By clicking the button below, I indicate my understanding of the information provided for the study **Parents' Thoughts About and Behaviours Toward their Children's Negative Emotions** as described herein. My questions have been answered to my satisfaction, and I agree to participate in this study. I agree to print or request an email copy of this page for my records. To request an email copy, please contact duffett@uwindsor.ca.

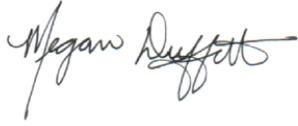
PRINT THIS DOCUMENT FOR YOUR RECORDS

I AGREE TO PARTICIPATE

I do not agree to participate

SIGNATURE OF INVESTIGATOR

These are the terms under which I will conduct research.



Signature of Investigator

May 24, 2010
Date

APPENDIX D

Background Questionnaire

PLEASE NOTE: If you have more than one child, please complete the survey while referring to your youngest child who: (a) is between the ages of 4 and 12, and (b) does not have a developmental disability (for example, Autism, Down Syndrome, etc.)

About your child:

1. Please enter the first name of the child for whom you are completing this questionnaire: _____
2. Child's age years _____ months _____
3. Child's gender (check one): M F Other
4. Child's ethnicity:
 - Aboriginal (Inuit, Metis, North American Indian)
 - Arab/West Asian (e.g., Armenian, Egyptian, Iranian, Lebanese, Moroccan)
 - Black (e.g., African, Haitian, Jamaican, Somali)
 - Asian (e.g., Chinese, Filipino, Korean, Japanese)
 - White (Caucasian)
 - Latin American
 - Other *please specify* _____
5. What grade is your child current in at school? _____
6. Has your child ever been diagnosed with a psychological or developmental disorder(s)?
 - YES NOIf yes, please check all that apply:
 - Autism or Autistic Disorder (ASD)
 - Asperger's Disorder
 - Pervasive Developmental Disorder Not Otherwise Specified (PDD NOS)
 - Reading Disability or Reading Disorder (Dyslexia)
 - Math Disability or Math Disorder
 - Generalized Anxiety Disorder (GAD)

- Separation Anxiety Disorder
- Social Anxiety
- Specific Phobia
- Obsessive Compulsive Disorder (OCD)
- Major Depression or Depression
- Oppositional Defiant Disorder (ODD)
- Attention Deficit-Hyperactivity Disorder (ADD/ADHD)
- Down Syndrome
- Mental Retardation
- Other (please specify)_____

7. Who lives at home with your child? (please check and indicate the number of all that apply):

- Parents/primary caregivers (including yourself). If yes, how many? _____
- Siblings. If yes, how many?
 Brothers/stepbrothers/half-brothers: _____ ages: _____
 Sisters/stepsisters/half-sisters: _____ ages: _____
- Grandparents. If yes, how many? _____
- Other relatives. If yes, how many? _____
 Specify what relation these individuals have to your child: _____
- Other individuals who are not relatives. If yes, how many?:
 _____ Children _____ Adults

About you:

- 8. Your age: year_____ month_____
- 9. Gender (check one): M F Other (please specify): _____
- 10. How many years have you been a parent? _____
- 11. What is your relationship to the child? Mother Father Other (please describe):_____

12. Ethnicity:

- Same as child's ethnicity
- Aboriginal (Inuit, Metis, North American Indian)
- Arab/West Asian (e.g., Armenian, Egyptian, Iranian, Lebanese, Moroccan)
- Black (e.g., African, Haitian, Jamaican, Somali)
- Asian (e.g., Chinese, Filipino, Korean, Japanese)
- White (Caucasian)
- Latin American
- Other *please specify* _____

13. How many children do you have? _____

What are the ages and gender of each? _____

14. Occupation: _____

15. Marital status (check all that apply):

- Married to child's other biological parent
- Married to child's step-parent
- Divorced/separated from child's other parent
- Common law with child's biological parent
- Common law with child's step-parent
- Single
- Other (please specify): _____

16. Highest education level attained (check one):

- Grade 8 or less
- More than grade 8, but did not graduate from High School
- Went to a business, trade, or vocational school instead of High School
- High School Graduate
- Graduated from a trade school or college after High School
- Went to a trade school or college, but did not graduate

- Went to university, but did not graduate
- Graduated university with a bachelor's degree (B.A., B.Sc.)
- Graduate education at the Master's degree level (M.A., M.Sc., etc.)
- Graduate education at the doctoral level (M.D., Ph.D., etc.)

17. Estimated annual family income (please check one):

- less than \$10,000
- \$10,000 - \$20,000
- \$21,000 - \$30,000
- \$31,000 - \$40,000
- \$41,000 - \$50,000
- \$51,000 - \$60,000
- \$61,000 - \$70,000
- over \$70,000
- prefer not to answer

18. Have you ever taken any parenting courses? YES NO

If yes, please describe: _____

19. Have you ever read any parenting books? YES NO

If yes, please describe: _____

20. Do you have a partner who is also a parent/primary caregiver to your child?

- YES NO

(If yes, participants will continue to answer the following questions about the child's other parent/primary caregiver. If no, participants will begin the following questionnaire, the ERPS – SF)

About child's other parent/primary caregiver

21. His or her age: year_____ month_____

22. Gender (check one): M F Other (please specify) _____

23. What is the parent/primary caregiver's relationship to the child?

Mother Father Step-mother Step-father Other (please describe): _____

24. Ethnicity

- Same as child's ethnicity
- Aboriginal (Inuit, Metis, North American Indian)
- Arab/West Asian (e.g., Armenian, Egyptian, Iranian, Lebanese, Moroccan)
- Black (e.g., African, Haitian, Jamaican, Somali)
- Asian (e.g., Chinese, Filipino, Korean, Japanese)
- White (Caucasian)
- Latin American
- Other *please specify* _____
- Unknown

25. Occupation: _____

26. Highest education level attained (check one):

- Grade 8 or less
- More than grade 8, but did not graduate from High School
- Went to a business, trade, or vocational school instead of High School
- High School Graduate
- Graduated from a trade school or college after High School
- Went to a trade school or college, but did not graduate
- Went to university, but did not graduate
- Graduated university with a bachelor's degree (B.A., B.Sc.)
- Graduate education at the Master's degree level (M.A., M.Sc., etc.)
- Graduate education at the doctoral level (M.D., Ph.D., etc.)

References

- Achenbach, T. M., Howell, C. T., McConaughy, S. H., & Stranger, C. (1995). Six-year predictors of problems in a nation sample of children and youth: I. Cross-informant syndromes. *Journal of the American Academy of Child and Adolescent Psychiatry, 34*, 336-347.
- Albano, A. M., Chorpita, B. F., & Barlow, D. H. (2003). Childhood anxiety disorders. In: E. Mash & R. Barkley (Eds.), *Child psychopathology* (2nd ed., pp. 279–329). New York, NY: Guilford Press.
- Albano, A. M., & Detweiler, M. F. (2001). The developmental and clinical impact of social anxiety and social phobia in children and adolescents. In S. G. Hoffman & P. M. DiBartolo (Eds.), *Social phobia and social anxiety: An integration*, (pp. 162–178). New York: Plenum.
- Albano, A. M., & Silverman, W. K. (1996). *Therapist's guide to the use of the Anxiety Disorders Interview Schedule for DSM-IV - child and parent versions*. San Antonio, TX: Graywind Publications, a Division of The Psychological Corporation.
- Alloy, L. B. (2001). The developmental origins of cognitive vulnerability to depression: Negative interpersonal context leads to personal vulnerability. *Cognitive Therapy and Research, 25*, 349–351.
- Alloy, L.B., Abramson, L.Y., Tashman, N., Berrebbi, D.S., Hogan, M.E., Whitehouse, W.G., Crossfield, A.G., & Morocco, A. (2001). Developmental origins of cognitive vulnerability to depression: Parenting, cognitive, and inferential feedback styles of the parents of individuals at high and low cognitive risk for

- depression. *Cognitive Therapy and Research*, 25, 397–423
- Antony, M. M., Bieling, P. J., Cox, B. J., Enns, M.W., & Swinson, R. P. (1998). Psychometric properties of the 42-item and 21-item versions of the Depression Anxiety Stress Scales in clinical groups and a community sample. *Psychological Assessment*, 10, 176–181.
- Baker, J. K., & Crnic, K.A. (2009). Thinking about feelings: Emotion focus in the parenting of children with early developmental risk. *Journal of Intellectual Disability Research*, 53, 450–462.
- Barlow, D. H. (2002). *Anxiety and its disorders: The nature and treatment of anxiety and panic* (2nd ed.). New York: Guilford Press.
- 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, 1173–1182.
- Barrett, P. M., Rapee, R. M., Dadds, M. R., & Ryan, S. M. (1996). Family enhancement of cognitive style in anxious and aggressive children. *Journal of Abnormal Child Psychology*, 24, 187–203.
- Benjamin, R. S., Costello, E. J., & Warren, M. (1990). Anxiety disorders in a pediatric sample. *Journal of Anxiety Disorders*, 4, 293–316.
- Bernstein, G. A., Borchardt, C. M., & Perwien, A. R. (1996). Anxiety disorders in children and adolescents: A review of the past 10 years. *Journal of American Academy of Child and Adolescent Psychiatry*, 35, 519–532.
- Blount, R. L., Bachanas, P. J., Powers, S. W., Cotter, M. C, Franklin, A., Chaplin, W., Mayfield, J., Henderson, M., & Blount, S. D. (1992). Training children to cope

- and parents to coach them during routine immunizations: Effects on child, parent, and staff behaviors. *Behavior Therapy*, 23, 689–705.
- Bodden, D. H. M., Bogels, S. M., Nauta, M. H., de Haan, E., Ringrose, J., & Appelboom, C. (2008). Child versus family cognitive-behavioral therapy in clinically anxious youth: An efficacy and partial effectiveness study. *Journal of the American Academy of Child and Adolescent Psychiatry*, 47, 1384–1394.
- Bögels, S. M., & Brechman-Toussaint, M. L. (2006). Family issues in child anxiety: Attachment, family functioning, parental rearing and beliefs. *Clinical Psychology Review*, 26, 837–856.
- Bögels, S. M., van Dongen, L., & Muris, P. M. (2003). Family influences on dysfunctional thinking in anxious children. *Infant and Child Development*, 12, 243–252.
- Bögels, S. M., & Siqueland, L. (2006). Family cognitive behavioral therapy for children and adolescents with clinical anxiety disorders. *Journal of the American Academy of Child and Adolescent Psychiatry*, 45, 134–141.
- Bolton, D., Eley, T. C., O'Connor, T. G., Perrin, S., Rabe-Hesketh, S., Rijdsdijk, F., et al. (2006). Prevalence and genetic and environmental influences on anxiety disorders in 6-year-old twins. *Psychological Medicine*, 36, 335–344.
- von Brakel, A. M. L., Muris, P., Bögels, S. M., & Thomassen, C. (2006). A multifactorial model for the etiology of anxiety in nonclinical adolescents: Main and interactive effects of behavioral inhibition, attachment, and parental rearing. *Journal of Child and Family Studies*, 15, 569–579.
- Briggs-Gowan, M. J., Carter, A. S., & Schwab-Stone, M. (1996). Discrepancies among

- mother, child, and teacher reports: examining the contributions of maternal depression and anxiety. *Journal of Abnormal Child Psychology*, 24, 749–765.
- Brody, G., & Flor, D. (1998). Maternal resources, parenting practices, and child competence in rural, single-parent African American families. *Child Development*, 69, 803–816.
- Brown, C. E. (2007). *Social skills, emotion regulation, and emotion socialization in children with ADHD*. Retrieved from Dissertation Abstracts International: Section B: The Sciences and Engineering (AAI3233768).
- Cartwright-Hatton, S., McNicol, K., & Doubleday, E. (2006). Anxiety in a neglected population: Prevalence of anxiety disorders in pre-adolescent children. *Clinical Psychology Review*, 26, 817–833.
- Cartwright-Hatton, W., Roberts, C., Chitsabesan, P., Fothergill, C., & Harrington, R. (2004). Systematic review of the efficacy of cognitive behaviour therapies for childhood and adolescent anxiety disorders. *British Journal of Clinical Psychology*, 43, 421–436.
- Casey, R. J. (1996). Emotional competence in children with externalizing and internalizing disorder. In M. Lewis & M. W. Sullivan (Eds.), *Emotional developmental in atypical children* (pp. 161 – 183). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Cassano, M., Perry-Parrish, C., & Zeman, J. (2007). Influence of gender on parental socialization of children's sadness regulation. *Social Development*, 16, 210–231.
- Chorpita, B. F., Albano, A. M., & Barlow, D. H. (1996). Cognitive processing in children: Relation to anxiety and family influences. *Journal of Clinical Child*

- Psychology*, 25, 170–176.
- Chorpita, B., & Daleiden, E. (2007). *2007 Biennial report: Effective psychosocial interventions for youth with behavioral and emotional needs*. Child Adolescence Mental Health Division, Hawaii Department of Health, Honolulu, Hawaii.
- Cicchetti, D., Ackerman, B. P., & Izard, C. E. (1995). Emotions and emotion regulation in developmental psychopathology. *Development and Psychopathology*, 7, 1–10.
- Cobham, V. E., Dadds, M. R., Spence, S. H., & McDermott, B. (2010). Parental anxiety in the treatment of childhood anxiety: A difference story three years later. *Journal of Clinical & Adolescent Psychology*, 39, 410–420.
- Cole, D. A., Hoffman, K., Tram, J. M., & Maxwell, S. E. (2000). Structural differences in parent and child reports of children's symptoms of depression and anxiety. *Psychological Assessment*, 12, 174–185.
- Cole, P. M., Tamang, B. L., & Shrestha, S. (2006). Cultural variations in the socialization of young children's anger and shame. *Child Development*, 77, 1237–1251.
- Costello, E., Angold, A., & Leaf, P. (1993). The Great Smoky Mountain Study of Youth: Goals, designs, methods and the prevalence of DSM-III-R disorders. *Archives of General Psychiatry*, 53, 1129–1136.
- Costello, E. J., Egger, H. L., & Angold, A. (2005). The developmental epidemiology of anxiety disorders: Phenomenology, prevalence, and comorbidity. *Child and Adolescent Psychiatric Clinics of North America*, 14, 613–648.
- Costello E. J., Mustillo, S., Erkanli, A., Keeler, G., & Angold, A. (2003) Prevalence and development of psychiatric disorders in childhood and adolescence. *Archives of General Psychiatry*, 60, 837–844.

- Creswell, C., & O'Connor, T. G. (2006). 'Anxious cognitions' in children: An exploration of associations and mediators. *The British Journal of Developmental Psychology, 24*, 761–766.
- Creswell, C., O'Connor, T. G., & Brewin, C. R. (2006). A longitudinal investigation of maternal and child 'anxious cognitions'. *Cognitive Therapy and Research, 30*, 135–147.
- Creswell, C., Schniering, C. A., & Rapee, R. M. (2005). Threat interpretation in anxious children and their mothers: Comparison with nonclinical children and the effects of treatment. *Behaviour Research and Therapy, 43*, 1375–1381.
- Creveling, C. C., Varela, R. E., Weems, C. E., & Corey, D. M. (2010). Maternal control, cognitive style, and childhood anxiety: A test of a theoretical model in a multi-ethnic sample. *Journal of Family Psychology, 24*, 439–448.
- Crowne, D. P., & Marlowe, D. (1960). A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology, 54*, 349–354.
- Dadds, M. R., Barrett, P. M., Rapee, R. M., & Ryan, S. (1996). Family process and child anxiety and aggression: An observational analysis. *Journal of Abnormal Child Psychology, 24*, 715–734.
- Dadds, M. R., Holland, D. E., Laurens, K. R., Mullins, M., Barrett, P. M., & Spence, S. H. (1999). Early intervention and prevention of anxiety disorders in children: Results at 2-year follow-up. *Journal of Consulting and Clinical Psychology, 67*, 145–150.
- Davidov, M., & Grusec, J. E. (2006). Untangling the links of parental responsiveness to distress and warmth to child outcomes. *Child Development, 77*, 44–58.

- Dekovic, M., Janssens, J. M. A. M., & Gerris, J. R. M. (1991). Factor structure and construct validity of the Block Child Rearing Practices Report (CRPR). *Psychological Assessment, 3*, 182–187.
- Denham, S. A. (1998). *Emotional development in young children*. New York: Guilford Press.
- Duffett, M. I., Francis, S. F., Noel, V. A., Lougheed, M. H., Bonnell, W., & Rajan, R. (2008, November). *Predicting child anxiety: The influence of parental beliefs about anxiety and parental stress*. Poster presented at the annual meeting of the Association for Behavioral and Cognitive Therapies, Orlando, FL.
- Ebesutani C., & Bernstein, A., Nakamura, B. J., Chorpita, B. F., & Weisz J. R. (2010). A psychometric analysis of the revised child anxiety and depression scale —parent version in a clinical sample. *Journal of Abnormal Child Psychology, 38*, 249–260.
- Eisenberg, N., Cumberland, A., & Spinrad, T. (1998). Parental socialization of emotion. *Psychological Inquiry, 9*, 241–273.
- Eisenberg, N., & Fabes, R. A. (1992). Emotion, regulation, and the development of social competence. In M.S. Clark (Ed.), *Review of personality and social psychology: Vol. 14. Emotion and social behavior* (pp. 119–150). Newbury Park, CA: Sage.
- Eley, T. C. (2001). Contributions of behavioral genetics research: Quantifying genetic, shared environmental and nonshared environmental influences. In M. W. Vasey & M. R. Dadds (Eds.), *The developmental psychopathology of anxiety* (pp. 45–59). New York: Oxford.
- Fabes, R. A., Leonard, S. A., Kupanoff, A., & Martin, C. L. (2001). Parental coping with children's negative emotions: Relations with children's and emotion and social

- responding. *Child Development*, 72, 907–920.
- Fabes, R. A., Poulin, R., Eisenberg, N., & Madden-Derdich, D. (2003). The Coping with Negative Emotions Scale: Psychometric properties and relations with social competence. *Marriage & Family Review*, 34, 285–310.
- Field, A., Cartwright-Hatton, S., Reynolds, S., & Creswell, C. (2008). Future directions for child anxiety theory and treatment. *Cognition & Emotion*, 22, 385 – 394.
- Fischer, D. G., & Flick, C. (1993). Measuring social desirability: Short forms of the Marlowe-Crowne Social Desirability Scale. *Educational and Psychological Measurement*, 53, 417–424.
- Fivush, R., & Wang, Q. (2005), Emotion talk in mother-child conversations of the shared past: The effects of culture, gender, and event valence. *Journal of Cognition and Development*, 6, 489–506.
- Ford, T., Goodman, R., & Meltzer, H. (2003) The British child and adolescent mental health survey 1999: The prevalence of DSM-IV disorders. *The Journal of the American Academy of Child and Adolescent Psychiatry*, 42, 1203–1211.
- Francis, S. E., & Chorpita, B. F. (2010a). Development and evaluation of the parental beliefs about anxiety questionnaire. *Journal of Psychopathology and Behavioral Assessment*, 32, 138–149.
- Francis, S. E., & Chorpita, B. F. (in press b). Parental beliefs about anxiety as a mediator of parent and child anxiety. *Cognitive Therapy and Research*.
- Furniss, T., Beyer, T., & Guggenmos, J. (2006). Prevalence of behavioral and emotional problems among six-years-old preschool children. Baseline results of a prospective longitudinal study. *Social Psychiatry and Psychiatric Epidemiology*,

- 41, 394–399.
- Gallagher, B., & Cartwright-Hatton, S. (2009). The relationship between parental anxiety and child-related cognition: An experimental approach. *Cognitive Therapy Research, 33*, 523–531.
- Ginsburg, G. S. (2009). The child anxiety prevention study: Intervention model and primary outcomes. *Journal of Consulting and Clinical Psychology, 77*, 580–587.
- Ginsburg, G. S., Grover, R. L., & Ialongo, N. (2004). Parenting behaviors among anxious and non-anxious mothers: Relation with concurrent and long-term child outcomes. *Child & Family Behavior Therapy, 26*, 23–41.
- Gottman, J. K., Katz, L. F., & Hooven, C. (1996). Parental meta-emotion philosophy and the emotion life of families: Theoretical models and preliminary data. *Journal of Family Psychology, 10*, 243–268.
- Gottman, J. K., Katz, L. F., & Hooven, C. (1997). *Meta-emotion: How families communicate emotionally*. Mahwah, NJ: Erlbaum.
- Gottman, J. M. (1997). *The heart of parenting: Raising an emotionally intelligent child*. New York: Simon & Schuster.
- 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 Psychopathology and Behavioral Assessment, 24*, 259–267.
- Gruner, K., Muris, P., & Merckelbach, H. (1999). The relationship between anxious rearing behaviors and anxiety disorders symptomatology in normal children. *Journal of Behavior Therapy and Experimental Psychiatry, 30*, 27–35.
- Hakim-Larson, J., Parker, A., Lee, C., Goodwin, J., & Voelker, S. (2006). Measure

- parental meta-emotion: psychometric properties of the emotion-related parenting styles self-test. *Early Education and Development*, 17, 229–251.
- Halberstadt, A. G. (1986). Family socialization of emotional expression and nonverbal communication styles and skills. *Journal of Personality and Social Psychology*, 51, 827–836.
- Halgunseth, L., Ispa, J., & Rudy, D. (2006). Parental control in Latino families: An integrated review of the literature. *Child Development*, 77, 1282–1297.
- Hallett, V., Ronald, A., Rijdsdijk, F., & Eley, T. C. (2009). Phenotypic and genetic differentiation of anxiety-related behaviors in middle childhood. *Depression and Anxiety*, 26, 316–324.
- Hill, N. E., Bush, K. R., & Roosa, M. W. (2003). Parenting and family socialization strategies and children's mental health: Low-income, Mexican-American and Euro-American mothers and children. *Child Development*, 74, 189–204.
- Holden, R. R., Fekken, G. C., & Cotton, D. H. G. (1991). Assessing psychopathology using structured test-item response latencies. *Psychological Assessment*, 3, 111–118.
- Hubbard, J. A., & Coie, J. D. (1994). Emotional determinants of social competence in children's peer relationships. *Merrill-Palmer Quarterly*, 40, 1–20.
- Hudson, J. L., & Rapee, R. M. (2005). Parental perceptions of overprotection: Specific to anxious children or shared between siblings? *Behaviour Change*, 22, 185–194.
- Jaffe, M., Gullone, E., & Hughes, E., K. (2010). The roles of temperamental dispositions and perceived parenting behaviours in the use of two emotion regulation strategies in late childhood. *Journal of Applied Developmental Psychology* 31,

47–59.

- Kashani, J. H., & Orvaschel, H. (1988). Anxiety disorders in mid-adolescence: A community sample. *American Journal of Psychiatry*, *145*, 960–964.
- Kashani, J. H., & Orvaschel, H. (1990). A community study of anxiety in children and adolescents. *American Journal of Psychiatry*, *147*, 313–318.
- Katz, L. F., & Hunter, E. C. (2007). Maternal Meta-emotion philosophy and adolescent depressive symptomatology. *Social Development*, *16*, 344–360.
- Kendall, P. C., Hudson, J. L., Gosch, E., & Flannery-Schroeder, E. (2008). Cognitive-behavioral therapy for anxiety-disordered youth: A randomized clinical trial evaluating child and family modalities. *Journal of Consulting and Clinical Psychology*, *76*, 282–297.
- Kim-Cohen, J., Caspi, A., Moffitt, T. E., Harrington, H. Milne, B. B., & Poulton, R. (2003). Prior juvenile diagnoses in adults with mental disorder: Developmental follow-back of a prospective-longitudinal cohort. *Archives of General Psychiatry*, *60*, 709–717.
- Kindt, M., Brosschot, J. F., & Everaerd, W. (1997). Cognitive processing bias of children in a real life stress situation and a neutral situation. *Journal of Experimental Child Psychology*, *64*, 79–97.
- Kliewer, W., Fearnow, M. D., & Miller, P. A. (1996). Coping socialization in middle childhood: Tests of maternal and paternal influences. *Child Development*, *67*, 2339–2357.

- Klimes-Dougan, B., & Zeman, J. (2007). Introduction to the special issues of social development: Emotion socialization in childhood and adolescence. *Social Development, 16*, 203–209.
- Kovacs, M., Gatsonis, C., Paulauskas, S. L., & Richards, C. (1989). Depressive disorders in childhood: IV. A longitudinal study of comorbidity with and risk for anxiety disorders. *Archives of General Psychiatry, 46*, 776–782.
- Kushner, M. G., Sher, K. J. & Beitman, B. D. (1990). The relation between alcohol problems and the anxiety disorders. *American Journal of Psychiatry, 147*, 685–695.
- Laskey, B. J., & Cartwright-Hatton, S. (2009). Parental discipline behaviours and beliefs about their child: associations with child internalizing and mediation relationships. *Child: care, health and development, 35*, 717–727.
- Last, C. G, Hanson, C., & Franco, N. (1997). Anxious children in adulthood: A prospective study of adjustment. *Journal of the American Academy of Child and Adolescent Psychiatry, 36*, 645–652.
- Le, H. N., Berenbaum, H., & Raghavan, C. (2002). Culture and alexithymia: Mean levels, correlates, and the role of parental socialization of emotions. *Emotions, 2*, 341–360.
- Lindhout, I., Markus, M., Hoogendijk, T. H., Borst, S., Maingay, R., Spinhoven, P., et al. (2006). Childrearing style of anxiety disordered parents. *Child Psychiatry and Human Development, 37*, 89–102.
- Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck

- Depression and Anxiety Inventories. *Behaviour Research and Therapy*, 33, 335–344.
- Lunkenheimer, E. S., Shields, A. M., & Cortina, K. S. (2007). Parental emotion coaching and dismissing in family interaction. *Social Development*, 16, 232–248.
- Lyneham, H. J., & Rapee, R. M. (2005). Agreement between telephone and in-person delivery of a structured interview for anxiety disorders in children. *Journal of the American Academy of Child and Adolescent Psychiatry*, 44, 274–282.
- Marin, G., & Marin, B. (1991). *Research with Hispanic populations*. Newbury Park, CA: Sage.
- Matsumoto, D. (1993). American–Japanese cultural differences in the recognition of universal facial expressions. *Journal of Cross-Cultural Psychology*, 23, 72–84.
- McAdoo, H. (1982). Stress absorbing systems in Black families. *Family Relations*, 31, 479–488.
- McElwain, N. L., Halberstadt, A. G., & Volling, B. L. (2007). Mother-reported and father-reported reactions to children’s negative emotions: Relations to young children’s emotional understanding and friendship quality. *Child Development*, 78, 1407–1425.
- McLeod, B. D., Wood, J. J., & Weisz, J. R. (2007). Examining the association between parenting and childhood anxiety: A meta-analysis. *Clinical Psychology Review*, 27, 155–172.
- Mesquita, B., & Frijda, N. H. (1992). Cultural variations in emotions: A review. *Psychological Bulletin*, 112, 197–204.
- Moore, P. S., Whaley, S. E., & Sigman, M. (2004). Interactions between mothers and

- children: Impacts of maternal and child anxiety. *Journal of Abnormal Psychology*, 113, 471–476.
- Muris, P., Meesters, C., & von Brakel, A. (2003). Assessment of anxious rearing behaviors with a modified version of “Egna Minnen Beträffande Uppfostran” questionnaire for children. *Journal of Psychopathology and Behavioral Assessment*, 25, 229–237.
- Muris, P., & Merckelbach, H. (1998). Perceived parental rearing behavior and anxiety disorders symptoms in normal children. *Personality and Individual Differences*, 25, 1199–1206.
- Muris, P., Meesters, C., Merckelbach, H., & Hulsenbeck, P. (2000). Worry in children is related to perceived parental rearing and attachment. *Behavior Research and Therapy*, 38, 487–497.
- Muris, P., Sterneman, P., Merckelbach, H., & Meesters, C. (1996). The role of parental fearfulness and modeling in children's fear. *Behaviour Research and Therapy*, 34, 265–268.
- Murray, L., de Rosnay, M., Pearson, J., Bergeron, C., Schofield, E., Royal-Lawson, M., & Cooper, P. J. (2008). Intergenerational transmission of social anxiety: The role of social referencing processes in infancy. *Child Development*, 79, 1049–1064.
- Nelson, J. A., O'Brien, M., Blankson, A. N., Calkins, S. D., & Keane, S. P. (2009). Family stress and parental responses to children's negative emotions: Tests of the spillover, crossover, and compensatory hypotheses. *Journal of Family*, 5, 671–679.
- Nunnally, J. C. (1967). *Psychometric theory*. New York: McGraw-Hill.

- Ogliari A., Spatolaa, C. A., Pesenti-Gritti P., Meddac, E., Pennac, L., Stazi, A. M., Battagliaa, M., & Fagnanic, C. (2010). The role of genes and environment in shaping co-occurrence of DSM-IV defined anxiety dimensions among Italian twins aged 8–17. *Journal of Anxiety Disorders, 24*, 433–439.
- Paterson, A. D., Camodeca, A., Goodwin, J., Babb, K. A., Hakim-Larson, J., Voelker, S. & Gragg, M. (2010). Emotion-related parenting styles (ERPS): A short form for measuring parental meta-emotion philosophy. Manuscript submitted for publication.
- Perez-Olivas, G., Stevenson, J., & Hadwin, J. A., (2008). Do anxiety-related attentional biases mediate the link between maternal over involvement and separation anxiety in children? *Cognition and Emotion, 22*, 509–521.
- Pine, D. S. (1997). Childhood anxiety disorders. *Current Opinion in Pediatrics, 9*, 329–338.
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, and Computers, 36*, 717–731.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods, 40*, 879–891.
- Raval, V. V., & Martini, T. S. (2009). Maternal socialization of children's anger, sadness, and physical pain in two communities in Gujarat, India. *International Journal of Behavioral Development, 33*, 215–229.

- Raver, C. C. (2004). Placing emotional self-regulation in sociocultural and socioeconomic contexts. *Child Development, 75*, 346–353.
- Repetti, R. L., Taylor, S. E., & Seeman, T. E. (2002). Risky families: Family social environments and the mental and physical health of offspring. *Psychological Bulletin, 128*, 330–366.
- Rubin, K. H., Nelson, L. J., Hastings, P. D., & Asendorpf, J. (1999). The transaction between parents' perceptions of their children's shyness and their parenting styles. *International Journal of Behavioral Development, 23*, 937–957.
- Saarni, C. (1990). Emotional competence: How emotions and relationship become integrated. In R. A. Thompson (Ed.), *Socioemotional development* (pp. 115 – 182). Lincoln: University of Nebraska Press.
- Saarni, C. (1999) *The development of emotional competence*. New York: Guildford.
- Saarni, C., Mumme, D., & Campos, J. J. (1998). Emotion development: Action, communication, and understand. In W. Damon (Series Ed.) & N. Eisenberg (Vol. Ed.), *Handbook of child psychology: Vol 3. Social, emotional and personality development* (5th ed., pp. 237–309). New York: Wiley.
- Scott, W.A., Scott, R., & McCabe, M. (1991). Family relationships and children's personality: A cross-cultural, cross-source comparison. *British Journal of Social Psychology, 30*, 1–20.
- Silverman, W. K., & Ollendick, T. H. (2005). Evidence-based assessment of anxiety and its disorders in children and adolescents. *Journal of Clinical Child and Adolescent Psychology, 34*, 380–411.
- Siqueland, L., Kendall, P. C., & Steinberg, L. (1996). Anxiety in children: Perceived

- family environments and observed family interaction. *Journal of Clinical Child Psychology*, 25, 225–237.
- Siqueland, L., Rynn, M., & Diamond, G. S. (2005). Cognitive behavioural and attachment based family therapy for anxious adolescents: Phase I and II studies. *Anxiety Disorders*, 19, 361–381.
- Spence, S. H., Donovan, C., & Brechman-Toussaint, M. (2000). The treatment of childhood social phobia: The effectiveness of a social skills training-based, cognitive-behavioural intervention, with and without parental involvement. *Journal of Child Psychology and Psychiatry*, 41, 713–726.
- Stallings, P. & March, J.S. (1995). Assessment. In: J.S. March (Ed.), *Anxiety disorders in children and adolescents* (pp. 125–147). New York: Guilford.
- Stocker, C. M., Richmond, M. K., & Rhoades, G. K. (2007). Family emotional processes and adolescents' adjustment. *Social Development*, 16, 310–325.
- Strahan, R., & Gerbasi, K. C., (1972). Short, Homogeneous version of the Marlow-Crowne social desirability scale. *Journal of Clinical Psychology*, 28, 191–193.
- Suveg, C., Sood, E., Hudson, J. L., & Kendall, P. C. (2008). “I’d rather not talk about it”: Emotion parenting in families of children with an anxiety disorder. *Journal of Family Psychology*, 22, 875–884.
- Suveg, S., Zeman, J., Flannery-Schroeder, E., & Cassano, M. (2005). Emotion socialization in families of children with an anxiety disorder. *Journal of Abnormal Child Psychology*, 33, 145–155.
- Tao, A., Zhou, Q., & Wang, Y. (2010). Parental reactions to children’s negative emotions: Prospective relations to Chinese children’s psychological adjustment.

- Journal of Family Psychology*, 24, 135–144.
- Thompson, E. R., & Phua, F. T. T. (2005). Reliability among senior managers of the Marlowe-Crowne Short-Form Social Desirability Scale. *Journal of Business and Psychology*, 19, 541–554.
- Trommsdorff, G., & Friedlmeier, W. (2010). Preschool girls' distress and mothers' sensitivity in Japan and Germany. *European Journal of Developmental Psychology*, 7, 350–370.
- Trommsdorff, G., & Rothbaum, F. (2008). Development of emotion-regulation as part of selfregulation in cultural context. In S. Ismer, S. Jung, S. Kronast, C. v. Scheve, & M. Vandekerckhove (Eds.), *Regulating emotions: Social necessity and biological inheritance* (pp. 85–120). London: Blackwell.
- Turner, S. M., Beidel, D. C., & Costello, A. (1987). Psychopathology in the offspring of anxiety disorders patients. *Journal of Consulting and Clinical Psychology*, 55, 229–235.
- Turner, S. M., Beidel, D. C., Roberson-Nay, R., & Tervo, K. (2003). Parenting behaviors in parents with anxiety disorders. *Behaviour Research and Therapy*, 41, 541–554.
- Varela, R. E., Sanchez-Sosa, J. J., Biggs, B. K., & Luis, T. M. (2009). Parenting strategies and socio-cultural influences in childhood anxiety: Mexican, Latino descent, and White, non- Latino Families. *Journal of Anxiety Disorders*, 23, 609–616.
- Webster-Stratton, C. & Hammond, M. (1997). Treating children with early onset conduct problems: a comparison of child and parent training interventions. *Journal of Consulting and Clinical Psychology*, 65, 93–109.

- Wood, J. (2006). Effect of anxiety reduction on children's school performance and social adjustment. *Developmental Psychology, 42*, 345–349.
- Wood, J. J., McLeod, B. D., Piacentini, J. C., & Sigman, M. (2009). One-year follow-up of family versus child CBT for anxiety disorders: Exploring the roles of child age and parental intrusiveness. *Child Psychiatry and Human Development, 40*, 301–316.
- Wood, J. J., Piacentini, J. C., Southam-Gerow, M., Chu, B. C., & Sigman, M. (2006). Family cognitive behavioral therapy for child anxiety disorders. *Journal of the American Academy of Child and Adolescent Psychiatry, 45*, 314–321.
- 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*, 364–374.
- Woodward, L. J., & Fergusson, D. M. (2001). Life course outcomes of young people with anxiety disorders in adolescence. *Journal of the American Academy of Child and Adolescent Psychiatry, 40*, 1086–1093.
- Zahn-Waxler, C., Iannotti, R. J., Cummings, E. M., & Denham, S. (1990). Antecedents of problem behaviors in children of depressed mothers. *Development and Psychopathology, 2*, 271–291.

VITA AUCTORIS

NAME	Megan Irene Duffett
PLACE OF BIRTH	St. John's, Newfoundland and Labrador
YEAR OF BIRTH	1986
EDUCATION	Discovery Collegiate, Bonavista, NL 1999 – 2004 Memorial University of Newfoundland, St. John's, NL 2004 – 2008, B.Sc. (hons.) University of Windsor, Windsor, ON 2008 – 2010, M.A.