Understanding the Parenting Experience: Assessing the Relationship Between Parenting Stress, Parental Self-Efficacy, and Parental Emotion Socialization in a Community Sample of Parents

By

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Abstract

The current dissertation is comprised of three related studies that examine several aspects of parenting, with the overarching goal of generating knowledge that will advance parenting research and support parents in their parenting role. Collectively, the three studies aimed to investigate parenting stress and parenting self-efficacy as correlates of parents' supportive and unsupportive emotion socialization behaviours. All three studies used a correlational, cross-sectional research design with a sample of mothers and fathers who have children between the ages of 7-11 years. The first study used parallel analysis, exploratory factor analysis, and confirmatory factor analysis to examine multiple sources of parenting stress identified in Parent-Child Relationship and Daily Hassles theories of parenting stress to determine how these sources of parenting stress contribute to a broader parenting stress construct. The findings of the first study show that both theories uniquely contribute to a broader parenting stress construct, such that parenting stress may arise from both problematic functioning within the family system as well as parenting daily hassles. The objective of the second study was to use the broader construct of parenting stress identified in the first study and examine how it relates to parents' supportive and unsupportive emotion socialization behaviours using structural equation modeling. The results illustrate that parenting stress explains significant variance in parents' unsupportive emotion socialization, suggesting parenting stress may be an important correlate associated with fewer unsupportive emotion socialization behaviours. The goal of the third study was to explore parenting self-efficacy as a correlate of parents' supportive and unsupportive emotion socialization behaviours using structural equation modeling. The outcomes of study three identify that parenting self-efficacy is related to and explains a small amount of parents' supportive emotion socialization, indicating there exists a limited relationship between parenting

self-efficacy and parents' emotion socialization. Taken together, each study in the current dissertation worked in concert not only to advance the parenting literature by evaluating and contributing to parenting stress and emotion socialization theory, but also to support parents by encouraging their supportive emotion socialization behaviours and generating new knowledge of stress within the parenting role.

Preface

This thesis is an original work by Chelsea M. Durber. The research project, of which this thesis is a part, received research ethics approval from the University of Alberta Research Ethics Board, Project Name “Understanding the Relationship Between Parenting Stress, Parental Self-Efficacy, and Parental Emotion Socialization,” Pro00094224, April 16, 2020.

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Chapter 1: Introduction

While the influence of parents' emotion socialization behaviours on children's social-emotional development is well-documented (Grusec & Hastings, 2015), less research exists on the factors associated with parental emotion socialization. Research on the correlates of parental emotion socialization include myriad child-related characteristics and some parent-related characteristics, demonstrating the complexity of factors that influence how parents socialize children's emotions (Grusec & Hastings, 2015). Since the COVID-19 pandemic, about 44% of parents and 25% of children reported deteriorating mental health, as well as a 20% increase in negative interactions with their child (Gadermann et al., 2021). Parenting stress and parenting self-efficacy as potential influencers of parents' emotion socialization behaviours are overlooked and warrant further study to both enhance emotion socialization theory and support parents in the parenting role. This dissertation aims to address this gap in emotion socialization research by examining parenting stress, relations between parenting stress and emotion socialization, and the role of parenting self-efficacy on parental emotion socialization. The following introduction includes a brief discussion of parenting and emotion socialization, the relationship between parenting stress and parenting, challenges in the measurement of parenting stress, and the role of parental-self efficacy as an influencer of parenting behaviours.

The Broader Parenting Context

Concepts Related to Parenting

Parenting is defined by Johnson et al. (2014) as the "acts of providing for and supporting the emotional, intellectual, physical, and social development of children from infancy to adulthood; these acts are required for successful childrearing" (p.94). The parenting literature is broad and encompasses a wide range of constructs and terminology, including parenting

dimensions, parenting styles, parenting practices, and parenting behaviours, (Johnson et al., 2014). There is a wealth of literature that defines and distinguishes parenting styles from parenting dimensions. Parenting styles are the general attitudes that parents demonstrate in their interactions with children (Darling & Steinberg, 1993). In contrast, parenting dimensions are features of parenting styles, such as warmth and control (Darling & Steinberg, 1993; Skinner et al., 2005), which, depending on their combination, comprise different parenting style typologies (e.g., authoritative, authoritarian, permissive).

Darling and Steinberg (1993) distinguished between the constructs of parenting style and parenting practices by arguing that parenting style is a broader, contextual variable that is expressed through and moderates parenting practices, which tend to be more domain-specific; however, the terms 'parenting practices' and 'parenting behaviours' are not well-defined within the parenting literature. In fact, some parenting scholars use these terms interchangeably. For example, when defining parenting style, Darling and Steinberg (1993) explained that parents engage in "goal-directed behaviours through which parents perform their parental duties" (p. 488) and then noted that such behaviours would be referred to as parenting practices. Similarly, in a national, longitudinal parenting report created by the Government of Australia, parenting styles and dimensions were noted to be distinct concepts; however, the authors equated the terms 'parenting practices' and 'parenting behaviours' (Australian Institute of Family Studies, 2010).

This definitional overlap is also evident in specialized areas within the parenting literature. For example, within the emotion socialization literature, researchers describe emotion socialization as both behaviours and practices (Eisenberg et al., 1998; Hooper et al., 2018; Shipman & Zeman, 2001). Based on the relative equivalence of the terms within the broader

parenting literature, I will refer to the specific behaviours through which parents engage in emotion socialization as emotion socialization behaviours.

Defining Socialization

Socialization is broadly defined as "the processes whereby naive individuals are taught the skills, behavior patterns, values, and motivations needed for competent functioning in the culture in which the child is growing up" (Grusec & Hastings, 2015, p.3). Parents are one of the primary socialization agents of children's development (Michalik et al., 2007). Parental socialization may foster and develop children's cognition, prosocial behaviour, and emotion (Grusec & Hastings, 2015). The socialization of emotion is defined as "behaviours enacted by socializers that (a) influence a child's learning (or lack thereof) regarding the experience, expression, and regulation of emotion and emotion-related behavior, and (b) are expected to affect the child's emotional experience, learning of content, and emotion-related behavior in a manner consistent with socializers' beliefs, values, and goals about emotion and its relation to individual functioning and adaption in society" (Eisenberg et al., 1998, p.317). Thus, the terms "socialization" and "parental emotion socialization" reflect discrete, yet related constructs such that socialization refers to the general socialization process, while parental emotion socialization refers specifically to the socialization process between parents and children that develops children's emotion-related skills, values, and behaviours (Denham et al., 2015; Grusec & Hastings, 2015).

An important consideration within the definition of socialization is the acknowledgement that emotion socialization behaviours are embedded within a broader cultural context. A socializer's culture imbues their goals for socialization and shapes the socialization practices through which the goals are achieved (Grusec & Hastings, 2015). For example, variations in

socialization practices and effects exist depending on culture (Denham et al., 2015). With that in mind, it is important to note that much of the research presented in this dissertation is based on Western European and American culture; however, the field of cross-cultural emotion socialization is burgeoning (Raval & Walker, 2019) and thus, a review of similarities and differences in parental emotion socialization across cultures is beyond the scope of this dissertation.

Parental Emotion Socialization

As stated by Denham et al. (2015), "emotions are ubiquitous in all our lives" (p. 590) and provide invaluable information about ourselves and others that help us navigate our environment. A strong emotional foundation fosters children's social competence and is associated with both their overall well-being and academic outcomes (Grusec & Hastings, 2015); thus, the study of parental emotion socialization has and continues to warrant investigation (Chronis-Tuscano et al., 2022). In their seminal article, Eisenberg et al. (1998) provided the conceptual foundation for emotion socialization (ES) by situating it within the parenting style and socialization frameworks. The authors drew upon Darling and Steinberg's (1993) integrative model of parenting style which separates the parenting construct into: (a) parental values and goals; (b) parenting style; and (c) parenting practices. Eisenberg et al. posited that parental values and goals motivate parents' parenting styles and practices, and that parental emotion socialization behaviours should be considered a subset of parents' general parenting practices. Moreover, the authors argued that parents' socialization behaviours are the primary influencers of children's emotional and social competence, whereas parenting style is a moderator rather than a direct influencer of children's social and emotional competence. In other words, parenting style

provides a more foundational context and relationship in which emotion socialization behaviours occur (Denham et al., 2015; Johnson et al., 2017).

Eisenberg et al. (1998) defined parental emotion socialization as "parental beliefs, goals, and values in regard to their children's experience, expression, and modulation of emotion" (Eisenberg et al., 1998, p. 317). They also introduced a heuristic model of emotion socialization outlining a pathway whereby parental emotion socialization behaviours, including parents' reactions to children's emotions, discussion of emotion, and emotional expressiveness, influence child-related outcomes, such as children's affective states and emotion expression and regulation. The authors also depicted a bidirectional pathway between child-related outcomes and children's social behaviours and social competence. As well, Eisenberg et al. mapped out categories of predictors they believed would influence parents' emotion socialization behaviours, ranging from parent characteristics (e.g., parenting style, emotion-related beliefs), child characteristics (e.g., age, temperament), cultural factors (e.g., emotion-related norms and values), and contextual factors (e.g., degree of emotion). A strength of the model proposed by Eisenberg et al. is its comprehensiveness; it offers breadth and depth through the inclusion of individual and family-level characteristics, as well as broader cultural and contextual factors that together influence the emotion socialization process. Similarly, this model acknowledges the developmental changes of the emotion socialization process as children progress through various developmental stages, a component that is sometimes overlooked with other emotion socialization models (Denham et al., 2015).

It is not surprising, then, that Eisenberg et al.'s emotion socialization framework is frequently drawn upon by parenting researchers to explore children's developmental outcomes. Specifically, research on emotion socialization has focused on the ways parental emotion

socialization contributes both maladaptively to children's externalizing and internalizing problems (Denham et al., 2000; Sanders et al., 2015; Suveg et al., 2005), and adaptively to children's social and emotional competence (Cassano & Zeman, 2010; Lagacé-Séguin & Coplan, 2006; McDowell et al., 2002). For example, researchers found exposure to parental negative emotions over-arouses children's emotions, and provides for children a template to express negative emotions in response to situations and people (Denham et al., 2015). Likewise, parental dismissiveness was found to "exacerbate the negative emotions that one is trying to manage (in part by arousing further emotion), as well as diminish opportunities for acquiring more adaptive modes of emotion regulation" (Thompson, 2014, p. 180). However, when parents responded supportively to children's negative emotions, such as by helping to refocus attention or reframe a situation, children demonstrated fewer expressions of anger and sadness (Morris et al., 2011). Taken together, this large body of research has provided important evidence of the ways in which emotion socialization contributes to an array of children's adaptive and maladaptive developmental outcomes.

Factors Influencing Parental Emotion Socialization

Given the implications of parental emotion socialization on children's social and emotional competence (Grusec & Hastings, 2015), parenting researchers are increasingly interested in understanding the factors that influence this important process. In alignment with the framework proposed by Eisenberg et al. (1998), researchers have studied factors that influence parents' emotion socialization behaviours at the contextual (e.g., marital discord), cultural (e.g., norms, values), and individual levels (i.e., parent or child). Studies of parent-related influencers are less abundant than child-related influencers of parents' emotion socialization, but are essential given that parents are the primary agents of socialization from

infancy to middle childhood (Eisenberg et al., 1998). A comprehensive review by Zeman et al. (2006) outlined parents' role in the development of children's emotion regulation abilities from infancy to middle childhood. The authors identified the many ways parents socialize children's emotions, which include their responses to children's emotions in infancy and labeling children's emotions during toddlerhood. In middle childhood, children develop increasingly complex emotion regulation strategies, including altering emotional expressions depending on social context, and benefit from parent feedback and support in managing and honing these strategies. The significant role parents have in socializing children's emotions and lack of research on parent-related influencers of emotion socialization collectively informed the focus and overarching goal of this dissertation, which was to investigate parent-related factors that help and hinder parents in their emotion socialization efforts.

Researchers studying correlates of parental emotion socialization have investigated the influence of several parent-related characteristics on parents' emotion socialization, including parental psychopathology, emotion-related beliefs, and emotion regulation abilities. For example, Morrow et al. (2021) examined the relationship between maternal depressive symptoms and mothers' socialization of children's positive affect. Morrow et al. found mothers with more depressive symptoms were less likely to enhance the positive experiences of their own and their child's positive events. Furthermore, when discussing positive events with their child, mothers with more depressive symptoms used fewer positive-affect words in the discussions with their child and were more likely to ignore their child's positive-affect words. With respect to parents' emotion-related beliefs, researchers have found evidence that parents' emotion coaching philosophy (e.g., attentive to children's emotions, value children's emotions) predicted more accurate labeling of emotions with boys (Morey & Gentzler, 2017) and were associated with

more supportive socialization behaviours (Meyer et al., 2014). Furthermore, Are and Shaffer (2015) conducted a study with mothers and pre-school aged children to assess the relationship between mothers' emotion regulation difficulties and emotional expressiveness. The authors found mothers who reported fewer challenges with their own emotion regulation tended to engage in more positive family expressiveness. Collectively, this research demonstrates that parent-characteristics both contribute to and detract from parents' emotion socialization behaviours and indicates that parent-related correlates of emotion socialization merit investigation. Therefore, a primary focus of this dissertation was to examine several parent-characteristics and their relation to parents' emotion socialization.

Parenting Stress as a Correlate of Emotion Socialization

A large national survey of families living in the United States showed approximately 25% of parents reported experiencing high levels of parenting stress (Moore et al., 2007). Parenting stress is defined as "the negative psychological and physiological responses to managing the demands of the parenting role" (Diener & Swedin, 2020, p.1). That is, parenting stress is believed to arise when the perceived demands of the parenting role overwhelm parents' coping abilities. These negative feelings may, in turn, overwhelm parents or challenge their expectations and goals as parents and potentially influence or undermine the quality of parenting (Deater-Deckard, 2004; Havighurst & Kehoe, 2017).

Parenting researchers have identified that parenting stress is related to parents' parenting style. Across this body of research, parenting stress is consistently associated with unsupportive parenting styles. For example, Ponnet, Mortelmans et al. (2013) evaluated parenting stress and the marital relationship as predictors of mothers' and fathers' responsiveness and demandingness, two dimensions of parents' parenting style. Demandingness refers to parental discipline, control,

and demands, while responsiveness involves parental warmth, emotional expressiveness, and use of positive reinforcement. The results of this study revealed parenting stress predicted increased demandingness and less responsiveness in parents of children and adolescents. Similarly, Mak et al. (2020) examined parenting stress, parenting styles, and children's problem behaviours in parents of pre-school age children. The authors found a relationship between parenting stress and both authoritarian and permissive parenting styles. The authors also found authoritarian and permissive parenting styles mediated the relationship between parenting stress and children's problem behaviours. Thus, parenting stress appears to be linked to and predictive of parents' overall parenting style, as well as specific dimensions of parenting style.

Along with parenting style, there is a plethora of research examining parenting stress as a predictor of specific parenting behaviours. Ponnet, Wouters, et al. (2013) examined the relationship between parenting stress and parent-child communication in a sample of mothers and fathers of children ranging from ages 10 to 18 years. The authors determined that parenting stress was associated with less open parent-child communication for both mothers and fathers. Pereira et al. (2012) examined parenting stress, maltreatment history, and sensitivity in a sample of mother-infant dyads. The authors found that mothers who reported greater parenting stress were less sensitive to their infants' cues. Likewise, Rodriguez and Green (1997) examined parenting stress and expressions of anger as predictors of potential child abuse in a study of mothers and fathers of children between the ages of 1 to 12 years. This study's findings showed parenting stress was associated with increased risk of potential child abuse, such that higher levels of stress were related to attitudes and characteristics linked to physical child abuse (e.g., misperceptions of appropriate child behaviour). This literature provides evidence of a clear link between parents' parenting stress and their parenting behaviours.

Recognizing that relationships between parents and children are bidirectional (Johnson et al., 2014), parenting researchers have also examined how children's behaviour influences levels of parenting stress (Östberg & Hagekull, 2000). It is not surprising that when parents are more stressed, children's negative behaviours may increase, leading to further parenting stress and perpetuating a negative interaction cycle between parent and child. For example, Neece et al. (2012) examined the reciprocal relationship between mothers' and fathers' parenting stress and the problem behaviours of their child from when their child was 3 until 9 years of age. The study findings revealed parenting stress and children's problem behaviours covaried over time, providing support for the existence of a bidirectional relationship. Overall, the parenting stress literature demonstrates that parenting stress is related to both broader parenting aspects (e.g., parenting style) and specific parenting behaviours, underscoring its widespread effects on parenting and emphasizing the value of examining its effect on various parenting behaviours.

Despite the ample research on parenting stress, investigations of the relationship between parenting stress and parental emotion socialization are relatively scarce. For example, Nelson et al. (2010) studied the association between marital dissatisfaction, home chaos, parental depression, and job role dissatisfaction – which they called 'family stress' – on parents' responses to children's emotions. The authors found that family stress was related to both supportive and unsupportive parental reactions to children's emotions. Hooper et al. (2015) combined maternal reports of parenting stress, positive and negative emotional expressivity (i.e., an emotion socialization behaviour), and depressive symptoms to create three types of maternal profiles, and then assessed how each maternal profile was associated with children's outcomes. Each profile encompassed different combinations of mothers' high or low scores on each of the three constructs. The 'stressed' maternal profile was comprised of low-to-average positive

emotional expressions, frequent and intense parenting stress, and elevated depressive symptoms, and was found to predict children's problem behaviours. Although the outcomes of these studies offer evidence that parent and family stress are related to parents' responses to children's emotions, the measures of parenting stress were often combined with other measures of stress. Thus, there is a lack of research examining parenting stress as a correlate of parents' emotion socialization and a specific need to investigate the unique role of parenting stress on parental emotion socialization.

In light of this review, a key aim of my dissertation will be to examine the unique associations between parenting stress and parents' emotion socialization. This study will focus on delineating the associations between parenting stress and two emotion socialization behaviours, parents' responses to children's emotions and parents' emotional expressivity (see Figure 1). This study will contribute to the literature through its direct measurement of parenting stress and emotion socialization, as well as through the inclusion of an additional emotion socialization behaviour. The knowledge generated from this study has the potential to identify factors that support parents and promote positive parenting behaviours in times of stress.

Conceptualization of Parenting Stress. Upon reviewing the parenting stress literature, it was evident that many studies of parenting stress are guided by the parenting stress model proposed by Abidin (1990). Abidin's model is called the domain-based theory of parenting stress. In this model, parenting stress is hypothesized to originate from parent, child, and parent-child relationship domains and, more specifically, from factors within each domain, such as parents' personality characteristics, restrictions of the parenting role, and child demandingness. These factors, in turn, contribute to overall levels of parenting stress. Many parenting stress researchers use the *Parenting Stress Index* (Abidin, 2012) to measure parenting stress because it

was developed by Abidin and aligns with the domain-based theory of parenting stress. In fact, Holly et al. (2019) conducted a review of the parenting stress measures used by researchers studying parenting stress with clinical samples of families from 1980 to 2018. The authors' review not only yielded hundreds of empirical investigations of parenting stress, but also showed about 70% of the researchers in their review used either the original form or the short-form versions of the Parenting Stress Index to measure parenting stress, illustrating the popularity of the domain-based theory of parenting stress and the Parenting Stress Index as a measure of parenting stress.

Researchers have used the domain-based theory of parenting stress to identify the influence of parenting stress on parenting behaviours. For example, Halme et al. (2006) used several items of the Parenting Stress Index to assess the influence of parenting stress on fathers' availability to and engagement with their pre-school age child. The authors found a direct relationship between parenting stress and engagement, with parenting stress accounting for 35% of the variance in father-child engagement, as well as an indirect relationship between fathers' parenting stress and availability via engagement. A study by Anthony et al. (2005) evaluated the relationship between different domains of parenting stress, overall parenting stress, and the behaviours and expectations of mothers and fathers of children between the ages of 2 and 6 years. The results of this study indicated parents' overall parenting stress was associated with their developmental expectations of their child, discipline-related behaviours (e.g., responding when child does not listen), and nurturing behaviours (e.g., reading to child before bed). The findings also showed the relationship between each domain of parenting stress was differentially associated with parents' behaviours, such that stress arising from the parent-child relationship and children's problem behaviours were associated with more strict discipline and less nurturing

parenting behaviours whereas parenting stress stemming from distress about the parenting role was not related to parents' parenting behaviour. Taken together, researchers have used the domain-based theory of parenting stress, and subsequently the Parenting Stress Index, to delineate numerous relations between parenting stress and parents' parenting behaviours, exemplifying the widespread appeal and use of the Parenting Stress Index within the parenting stress literature.

There exists other approaches and measures to examining parenting stress beyond the Parenting Stress Index and domain-based theory of parenting stress. Less commonly used within the parenting literature is the daily hassles theory of parenting stress. The daily hassles theory of parenting stress posits parenting stress develops from the everyday stressors associated with the parenting role (Crnic & Greenberg, 1990). These stressors, referred to as parenting daily hassles, are posited to be low-level hassles (e.g., scheduling challenges) that contribute to parenting stress cumulatively and over time. Crnic and Greenberg also developed a measure of parenting stress that aligns with the daily hassles theory, called the *Parenting Daily Hassles Scale* (Crnic & Greenberg, 1990). In the review by Holly et al. (2019), only a handful of researchers used daily hassles theory of parenting stress, reflecting approximately 3% of empirical studies of parenting stress in the studies between 1980 and 2018 that were reviewed by the authors.

Despite its more limited use, researchers have used the Parenting Daily Hassles Scale to explore the influence of parenting stress on parenting. In their study of parent and child factors related to parenting behaviours, Chen and Luster (2002) identified parenting stress, as measured by the Parenting Daily Hassles Scale, was a key predictor of several aspects of an authoritarian parenting style, including use of corporal punishment, non-reasoning/punitive discipline strategies, and verbal hostility in a sample of Chinese mothers. Likewise, the authors found

parenting stress predicted several aspects of mothers' authoritative parenting style, including less warmth and involvement and use of reasoning discipline strategies. Crnic et al. (2005) also used the Parenting Daily Hassles Scale to examine the relationship between parenting stress and parenting behaviours in mothers of 3-year-old children over a two-year time span. Of note, the authors also examined life stress in an effort to differentiate parenting stress from life stress. The outcomes of this study indicated parenting stress was associated with less maternal positivity during mother-child interactions and accounted for unique variance in maternal positivity over and above life stress. Similarly, parenting stress also predicted mother-child enjoyment during interactions, such that greater stress predicted lower levels of dyadic enjoyment, while life stress was not related to dyadic enjoyment. Researchers who used the Parenting Daily Hassles Scale to study parenting stress have demonstrated parenting stress originating from chronic, everyday parenting hassles influence parent's parenting behaviours and, consequently, offers valuable insight into the relationship between parenting stress and parenting.

Reviewing the parenting stress literature emphasized the varied conceptualizations as to whether parenting stress reflects problematic functioning in one or multiple domains (i.e., parent, child, parent-child relationship) or a normative result to daily parenting hassle, discrepant use of the Parenting Stress Index and Parenting Daily Hassles Scale in parenting studies, as well as the contributions to the knowledge on parenting stress afforded by these different measures and associated theories. Given that one of the objectives of this dissertation was to study the association between parenting stress and parents' emotion socialization, it was prudent to consider which theory would be used to conceptualize parenting stress and, consequently, which measure of parenting stress would be well-suited to carry out this research. Few researchers have discussed and compared these measures with a notable exception of Deater-Decker (2004), who

suggested it was likely these two theories are complementary rather than competing theories of parenting stress. The lack of empirical knowledge highlighted an important gap in the parenting stress literature and the need to investigate the contributions of the domain based and daily hassles theories of stress to the parenting stress construct. Thus, the first aim of this dissertation, which comprised study one, was to clarify the parenting stress construct that underlies the Parenting Stress Index and Parenting Daily Hassles Scale and, in turn, identify if there is evidence of a broader parenting stress construct that reflects stress arising from the parent, child, and parent-child relationship domains as well as from daily parenting hassles. This information will address a notable gap within the parenting stress literature and may extend knowledge on commonly used measures of parenting stress by assessing the contributions of multiple sources of parenting stress. Generating more information on the sources of stress for parents may also support stressed parents and educators who work with stressed parents by increasing awareness of stress contributors and consequently inform more targeted strategies to reduce such stress. Lastly, study one will serve as a foundation for the line of inquiry on parenting stress and emotion socialization. That is, the sources of parenting stress identified in study one will generate a stronger understanding of the parenting stress construct that will, in turn, allow for a more precise and thorough assessment of the relationship between parenting stress and emotion socialization, which will be investigated in study two. As such, the examination of the parenting stress construct will be carried out prior to exploring the relationship between parenting stress and emotion socialization and will be presented first in subsequent chapters.

Parental Self-Efficacy as a Correlate of Emotion Socialization

According to reviews, parental self-efficacy is associated with numerous parenting characteristics, such as parenting quality (Coleman & Karraker, 1998), role satisfaction (Jones &

Prinz, 2005), and parental mental health (Albanese et al., 2019). Parental self-efficacy is defined as "the expectation caregivers hold about their ability to parent successfully" (Jones & Prinz, 2005, p. 342). More specifically, parental self-efficacy reflects parents' self-perceptions of having a positive influence upon and being able to support their child's healthy development (Coleman & Karraker, 1998). The concept of parental self-efficacy originated from self-efficacy theory, which was developed by Bandura (1977). In 1998, Coleman and Karraker conducted an empirical examination of the parental self-efficacy construct and synthesized the extant research on parental self-efficacy, providing a critical foundation for and solidifying interest in parental self-efficacy from both research and applied domains. Specifically, the authors reviewed the emerging body of research on parental self-efficacy and underscored the potential link between parental self-efficacy and parenting behaviours. As well, Coleman and Karraker hypothesized about avenues in which parental self-efficacy may influence parental caregiving and satisfaction and the potential for parental self-efficacy to support positive parenting behaviours. Coleman and Karraker stressed that, at that time, parental self-efficacy was severely understudied within the broader parenting literature and argued that the extant literature suggests parental self-efficacy might have significant implications for clinical populations of families, such as parents or children diagnosed with mental health difficulties.

Since this seminal review, parental self-efficacy has been linked to myriad parenting factors including parents' own psychological functioning. According to a recent review by Albanese et al. (2019), the most commonly studied mental health outcome associated with parental self-efficacy is postpartum depression in mothers and fathers. For example, a study by Abdollahi et al. (2016) prospectively examined predictors of postpartum depression, such as social isolation, martial satisfaction, and parental self-efficacy in a group of first-time mothers

and found parental self-efficacy was a predictor of depression over the first 12 weeks postpartum. Similar findings were found by Giallo et al. (2013), who examined psychosocial risk factors associated with father's mental health in the first year postpartum. The study findings revealed approximately 10% of fathers reported feeling significant psychological distress and that low parental self-efficacy was a risk factor for distress. In addition to depression and distress, parental self-efficacy has been linked to many other mental health correlates for parents, including anxiety and well-being, which have highlighted the importance of parental self-efficacy to parents' own mental health functioning as they transition to parenthood (Albanese et al., 2019).

Researchers have also focused on delineating the relationship between parental self-efficacy and parenting behaviours. Jones and Prinz (2005) reviewed the literature on parental self-efficacy and parent and child adjustment and provided significant evidence of the relationship between parental self-efficacy and parenting competence. For the sake of their review, authors defined parenting competence and positive parenting as the "parenting behaviors, skills, and strategies that have been considered to promote positive and adaptive child development and outcomes." (p. 346). The authors found an expansive body of research connecting parental self-efficacy with positive mother-infant interactions, parental warmth and control, responsiveness, role satisfaction, parenting stress, as well as limit setting. Several of these studies also utilized parent and youth reports when examining parental self-efficacy and both parent and youth outcomes, including parental monitoring responsiveness, as well as youth academic and socio-emotional functioning (Bogenschneider et al., 2006; Shumow & Lomax, 2002). Thus, since the initial review by Coleman and Karraker (1998), parenting researchers have provided ample evidence that stronger parental self-efficacy is associated with more

adaptive outcomes for parents pertaining not only to their mental health and wellbeing, but also their parenting behaviours.

In addition to its link with parent-related outcomes, there is a plethora of research indicating that parental self-efficacy is directly and indirectly associated with children's developmental outcomes. Studies that have examined the direct relationship between parental self-efficacy and children's outcomes have reported associations between parental self-efficacy and the social interactions of infants, as well as children's self-regulation and self-worth (Albanese et al., 2019; Jones & Prinz, 2005). A study by Sanders et al. (2000) examined the effects of an intervention designed to support families with children with behavioural challenges on parental self-efficacy and children's behavioural outcomes. The authors identified parents who were part of the intervention condition reported increased parental self-efficacy as well as a reduction in problematic child behaviours compared to their waitlist counterparts. Additional research has demonstrated parental self-efficacy influences children's outcomes indirectly through parenting. For example, in the study by Shumow and Lowmax (2002), parental self-efficacy was associated to youths' academic and socio-emotional functioning via parental monitoring. Taken together, the burgeoning research on parental self-efficacy indicates this variable is associated with a host of adaptive and maladaptive factors for both parents and children, underscoring the value of studying parental self-efficacy in relation to parenting behaviours and children's socio-emotional development.

Given the extensive body of research on parental self-efficacy and research linking parental self-efficacy to parent and child outcomes, it is surprising that few researchers have investigated the relationship between parental self-efficacy and parents' emotion socialization. Only a handful of researchers have examined parental self-efficacy in relation to parent

responses to children's negative emotions (Sack, 2021). Moreover, the results of these studies are somewhat inconsistent, such that a relationship between parental self-efficacy and emotion socialization behaviours was found in some studies but not in others. Owing to the importance of emotion socialization on children's development, in conjunction with the large body of research linking parental self-efficacy with adaptive parent and child outcomes, additional research on parental self-efficacy and emotion socialization is needed to continue explicating this relationship.

The third study in this dissertation attends to the gap in research on parental self-efficacy and emotion socialization. This study will specifically examine the relationship between parental self-efficacy and two types of emotion socialization behaviours: parents' emotional expressivity and parents' responses to children's negative emotions. As such, this research will contribute to the parenting literature by generating more information on an understudied area and helping to explicate the relationship between two important factors that promote happy and healthy families.

Dissertation Focus

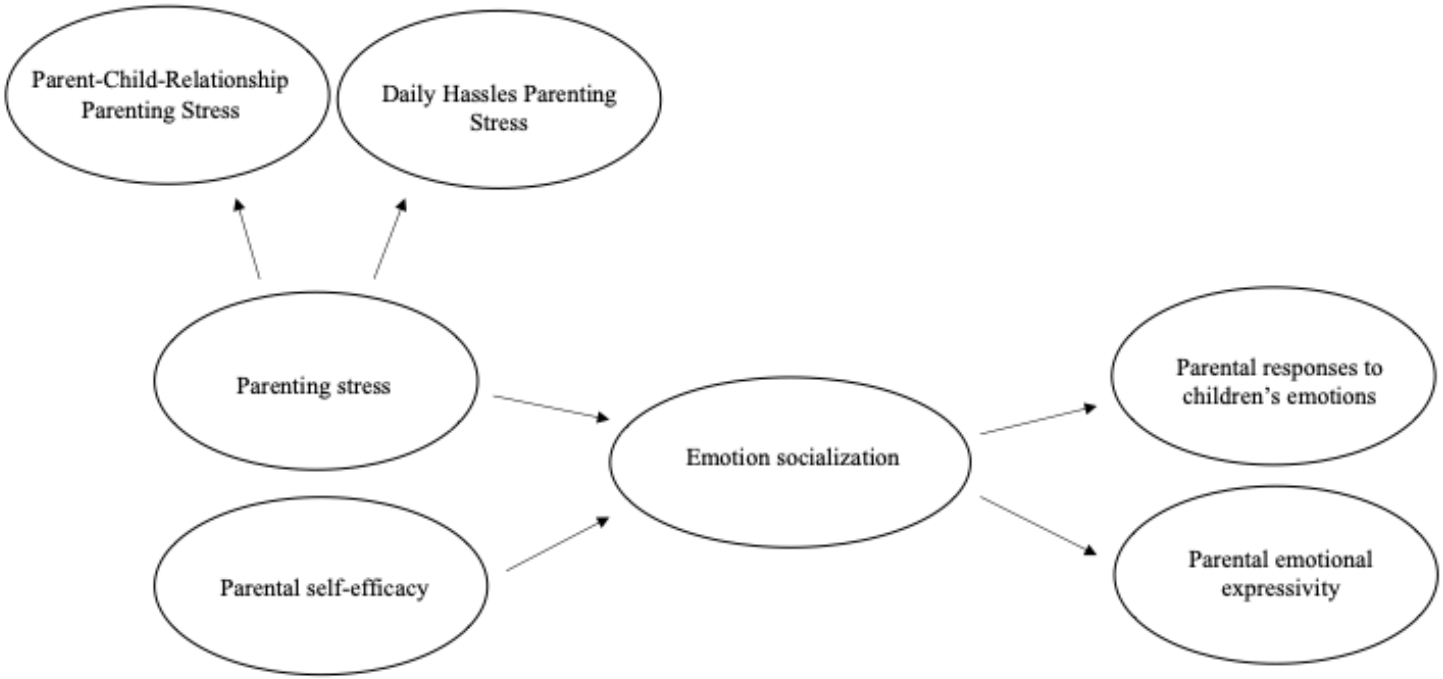
In sum, emotion socialization is a central aspect of parenting that helps develop children's social and emotional competence (Grusec & Hastings, 2015). There is ample research demonstrating that parent-characteristics both contribute to and detract from parents' emotion socialization behaviours (Eisenberg, 2020). Thus, the overarching goal of this dissertation was to illustrate factors that influence emotion socialization by examining parental characteristics associated with parental emotion socialization behaviours. A review of the emotion socialization literature underscored the benefit of examining parenting stress and parental self-efficacy because these factors influence parenting behaviours (Albanese et al., 2019; Deater-Deckard,

2004; Neece et al., 2012). To this end, a review of the parenting stress literature highlighted the need to first assess sources of parenting stress before evaluating the relationship between parenting stress and emotion socialization, given the inconsistencies in how parenting stress is conceptualized as either a normative part of parenting or indicative of problematic functioning (Camisasca et al., 2019; Cho et al., 2021; Yakub et al., 2021; Zhuo & Li, 2021). Therefore, the first study examined the parenting stress construct underlying the domain-based and daily hassles-based theories of parenting stress, as measured by the Parenting Stress Index and Parenting Daily Hassles Scale. Specifically, this study tested the hypothesis that a four-factor parenting stress construct would emerge, reflecting three domain-based sources of stress posited by Abidin (2012) and one daily-hassle based source of stress posited by Crnic and Greenberg (1990). In the second study, the relationship between parenting stress and parents' emotion socialization (i.e., parents' responses to children's negative emotions, parents' emotional expressivity) was assessed. Specifically, parents' emotion socialization behaviours were grouped based on whether they contribute adaptively or maladaptively to children's socio-emotional outcomes (i.e., supportive versus unsupportive emotion socialization behaviours), a conceptualization commonly found within the emotion socialization literature (Lozada & Brown, 2020). It was anticipated that parenting stress would be inversely related to parents' supportive emotion socialization behaviours and positively related to parent's unsupportive emotion socialization behaviours. Finally, the third study evaluated the relationship between parental self-efficacy and two types of emotion socialization behaviours (i.e., parents' responses to children's negative emotions, parents' emotional expressivity). Similar to study two, parents' emotion socialization behaviours were categorized as supportive or unsupportive, and it was hypothesized that parental self-efficacy would be positively associated with supportive emotion socialization

behaviours and negatively associated with unsupportive emotion socialization behaviours. In sum, each study in this dissertation attended to an identified gap in the parenting literature and contributed to the extant research on parenting, thereby supporting the overarching aim of examining parent-related factors that may ultimately serve to promote and support parents' emotion socialization behaviours and happiness in their parenting role.

Figure 1.1

Dissertation variables and relationships examined



References

Abdollahi, F., Agajani-Delavar, M., Zarghami, M., & Lye, M. S. (2016). Postpartum mental health in first-time mothers: A cohort study. *Iranian Journal of Psychiatry and Behavioral Sciences*, *10*(1), 1–7. https://doi.org/10.17795/ijpbs-426

Abidin, R. R. (1990). Introduction to the special issue: The stresses of parenting. *Journal of Clinical Child Psychology*, *19*(4), 298–301. https://doi.org/10.1207/s15374424jccp1904

Abidin, R. R. (1992). The determinants of parenting behavior. *Journal of Clinical Child Psychology*, *21*(4), 407–412. https://doi.org/10.1207/s15374424jccp2104

Abidin, R. R. (2012). *Parenting stress index* (4th ed.). Psychological Assessment Resources, Inc.

Albanese, A. M., Russo, G. R., & Geller, P. A. (2019). The role of parental self-efficacy in parent and child well-being: A systematic review of associated outcomes. *Child Care, Health and Development*, *45*(3), 333–363. https://doi.org/10.1111/cch.12661

Anthony, L. G., Anthony, B. J., Glanville, D. N., Naiman, D. Q., Waanders, C., & Shaffer, S. (2005). The relationships between parenting stress, parenting behaviour and preschoolers' social competence and behaviour problems in the classroom. *Infant and Child Development*, *14*, 133–154. https://doi.org/10.1002/icd

Are, F., & Shaffer, A. (2016). Family emotion expressiveness mediates the relations between maternal emotion regulation and child emotion regulation. *Child Psychiatry & Human Development*, *47*(5), 708-715.

Australian Institute of Family Studies (2010). *The longitudinal study of Australian children: Annual statistical report 2010*. Retrieved from: https://growingupinaustralia.gov.au/sites/default/files/asr2010.pdf

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. P*sychological*

Review, 84, 191–215.

Bogenschneider, K., Small, S. A., & Tsay, J. C. (2006). Child, parent, and contextual influences on perceived parenting competence among parents of adolescents. *Journal of Marriage and the Family*, *59*(2), 345. https://doi.org/10.2307/353475

Camisasca, E., Miragoli, S., & Di Blasio, P. (2019). Children's triangulation during inter-parental conflict: Which role for maternal and paternal parenting stress? *Journal of Child and Family Studies*, *28*(6), 1623–1634. https://doi.org/10.1007/s10826-019-01380-1

Cassano, M. C., & Zeman, J. L. (2010). Parental socialization of sadness regulation in middle childhood: the role of expectations and gender. *Developmental Psychology*, *46*(5), 1214–1226. https://doi.org/10.1037/a0019851

Chen, F. M., & Luster, T. (2002). Factors related to parenting practices in Taiwan. *Early Child Development and Care*, *172*(5), 413–430. https://doi.org/10.1080/03004430214549

Cho, B., Woods-Jaeger, B., & Borelli, J. L. (2021). Parenting stress moderates the relation between parental trauma exposure and child anxiety symptoms. *Child Psychiatry and Human Development*, *52*(6), 1050–1059. https://doi.org/10.1007/s10578-020-01087-1

Chronis-Tuscano, A., Bui, H. N. T., & Lorenzo, N. E. (2022). Transdiagnostic implications of parental socialization of child and adolescent emotional development: Commentary and future directions. *Research on Child and Adolescent Psychopathology*, *50*(2), 269–282. https://doi.org/10.1007/s10802-021-00872-3

Coleman, P. K., & Karraker, K. H. (1998). Self-efficacy and parenting quality: Findings and future applications. *Developmental Review*, *18*(1), 47–85. https://doi.org/10.1006/drev.1997.0448

Crnic, K. A., Gaze, C., & Hoffman, C. (2005). Cumulative parenting stress across the preschool

period: relations to maternal parenting and child behaviour at age 5. *Infant and Child Development*, *14*, 117–132. https://doi.org/10.1002/icd

Crnic, K. A., & Greenberg, M. T. (1990). Minor parenting stresses with young children. *Child Development*, *61*(5), 1628–1637.

Darling, N., & Steinberg, L. (1993). Parenting style as context: An integrative model. *Psychological Bulletin*, *113*(3), 487–496. https://doi.org/10.1037/0033-2909.113.3.487

Deater-Deckard, K. (2004). *Parenting stress*. Yale University Press.

Denham, S. A., Bassett, H. H., & Wyatt, T. (2015). The Socialization of Emotional Competence. In J. E. Grusec & P. D. Hastings (Eds.), *Handbook of socialization: Theory and research* (2nd ed., pp. 614–637). The Guilford Press.

Denham, S. A., Workman, E., Cole, P. M., Weissbrod, C., Kendziora, K. T., & Zahn-waxler, C. (2000). Prediction of externalizing behavior problems from early to middle childhood: the role of parental socialization and emotion expression. *Development and Psychopathology*, *12*(1), 23–45. http://www.ncbi.nlm.nih.gov/pubmed/10774594

Diener, M. L., & Swedin, M. N. (2020). Parenting stress. In S. H. Hupp and J. D. Jewell (Eds.), *The Encyclopedia of Child and Adolescent Development* (pp. 1–11). John Wiley & Sons. https://doi.org/10.1002/9781119171492.wecad206

Eisenberg, N. (2020). Findings, issues, and new directions for research on emotion socialization. *Developmental Psychology*, *56*(3), 664–670. https://doi.org/10.1037/dev0000906

Eisenberg, N., Cumberland, A., & Spinrad, T. L. (1998). Parental socialization of emotion. *Psychological Inquiry*, *9*(4), 241–273.

Gadermann, A. C., Thomson, K. C., Richardson, C. G., Gagné, M., Mcauliffe, C., Hirani, S., & Jenkins, E. (2021). Examining the impacts of the COVID-19 pandemic on family mental

health in Canada: findings from a national cross-sectional study. *BMJ Open*, *11*(1), 1–11. https://doi.org/10.1136/bmjopen-2020-042871

Giallo, R., D'Esposito, F., Cooklin, A., Mensah, F., Lucas, N., Wade, C., & Nicholson, J. M. (2013). Psychosocial risk factors associated with fathers' mental health in the postnatal period: Results from a population-based study. *Social Psychiatry and Psychiatric Epidemiology*, *48*(4), 563–573. https://doi.org/10.1007/s00127-012-0568-8

Grusec, J. E., & Hastings, P. D. (2015). *Handbook of socialization: Theory and research* (2nd Eds.). The Guilford Press. https://doi.org/10.1017/CBO9781107415324.004

Halme, N., Tarkka, M. T., Nummi, T., & Åstedt-Kurki, P. (2006). The effect of parenting stress on fathers' Availability and engagement. *Child Care in Practice*, *12*(1), 13–26. https://doi.org/10.1080/13575270500526220

Havighurst S., Kehoe C. (2017) The role of parental emotion regulation in parent emotion socialization: Implications for intervention. In: Deater-Deckard K., Panneton R. (Eds.) *Parental stress and early child development*. Springer. https://doi-org.login.ezproxy.library.ualberta.ca/10.1007/978-3-319-55376-4_12

Holly, L. E., Fenley, A. R., Kritikos, T. K., Merson, R. A., Abidin, R. R., & Langer, D. A. (2019). Evidence-base update for parenting stress measures in clinical samples. *Journal of Clinical Child and Adolescent Psychology*, 48(5), 685–705. https://doi.org/10.1080/15374416.2019.1639515

Hooper, E., Feng, X., Christian, L., & Slesnick, N. (2015). Emotion expression, emotionality, depressive symptoms, and stress: Maternal profiles related to child outcomes. *Journal of Abnormal Child Psychology*, *43*(7), 1319–1331. https://doi.org/10.1007/s10802-015-0019-6

Hooper, E. G., Wu, Q., Ku, S., Gerhardt, M., & Feng, X. (2018). Maternal emotion socialization

and child outcomes among African Americans and European Americans. *Journal of Child and Family Studies*, *27*(6), 1870–1880. https://doi.org/10.1007/s10826-018-1020-9

Johnson, A. M., Hawes, D. J., Eisenberg, N., Kohlhoff, J., & Dudeney, J. (2017). Emotion socialization and child conduct problems: A comprehensive review and meta-analysis. *Clinical Psychology Review*, *54*(September 2016), 65–80. https://doi.org/10.1016/j.cpr.2017.04.001

Johnson, B. D., Berdhal, L. D., Horne, M., Richter, E. A., & Walters, M. (2014). A parenting competency model. *Parenting Science and Practice*, *14*(2), 92–120. https://doi.org/10.1080/15295192.2014.914361

Jones, T. L., & Prinz, R. J. (2005). Potential roles of parental self-efficacy in parent and child adjustment: A review. *Clinical Psychology Review*, *25*(3), 341–363. https://doi.org/10.1016/j.cpr.2004.12.004

Lagacé-Séguin, D. G., & d'Entremont, M. L. (2006). The role of child negative affect in the relations between parenting styles and play. *Early Child Development and Care*, *176*, 461–477. https://doi.org/10.1080/03004430500039960

Lozada, F. T., & Brown, D. W. (2020). Emotion Socialization in the Family. *The Encyclopedia of Child and Adolescent Development*, 1–12. https://doi.org/10.1002/9781119171492.wecad183

Mak, M. C. K., Yin, L., Li, M., Cheung, R. Y. hin, & Oon, P. T. (2020). The Relation between parenting stress and child behavior problems: Negative parenting styles as mediator. *Journal of Child and Family Studies*, *29*(11), 2993–3003. https://doi.org/10.1007/s10826-020-01785-3

McDowell, D. J., Kim, M., O'neil, R., & Parke, D. (2002). Children's emotional regulation and

social competence in middle childhood. *Marriage & Family Review*, *34*(3–4), 345–364. https://doi.org/10.1300/J002v34n03

Meyer, S., Raikes, H. A., Virmani, E., Waters, S., & Thompson, R. A. (2014). Parent emotion representations and the socialization of emotion regulation in the family. *International Journal of Behavioral Development*, *38*(2), 164–173. https://doi.org/10.1177/0165025413519014

Michalik, N. M., Eisenberg, N., Spinrad, T. L., Ladd, B., Thompson, M., & Valiente, C. (2007). Longitudinal relations among parental emotional expressivity and sympathy and prosocial behavior in adolescence. *Social Development*, *16*(2), 286–309. https://doi.org/10.1111/j.1467-9507.2007.00385.x

Moore, C. G., Probst, J. C., Tompkins, M., Cuffe, S., & Martin, A. B. (2007). The prevalence of violent disagreements in US families: Effects of residence, race/ethnicity, and parental stress. *Pediatrics*, *119*. https://doi.org/10.1542/peds.2006-2089K

Morey, J. N., & Gentzler, A. L. (2017). Parents' perceptions of and responses to children's emotions: Relations with meta-emotion philosophy and adult attachment. *Parenting*, *17*(2), 73–103. https://doi.org/10.1080/15295192.2017.1304782

Morris, A. S., Silk, J. S., Morris, M. D. S., Steinberg, L., Aucoin, K. J., & Keyes, A. W. (2011). The influence of mother-child emotion regulation strategies on children's expression of anger and sadness. *Developmental Psychology*, *47*(1), 213–225. https://doi.org/10.1037/a0021021

Morrow, K. E., Gentzler, A. L., Wilson, T. K., Romm, K. F., & Root, A. E. (2021). Maternal depression and socialization of children's positive affect regulation. *Journal of Child and Family Studies*, *30*(10), 2413–2426. https://doi.org/10.1007/s10826-021-02045-8

Neece, C. L., Green, S. A., & Baker, B. L. (2012). Parenting stress and child behavior problems: A transactional relationship across time. *American Journal on Intellectual and Developmental Disabilities*, *117*(1), 48–66. https://doi.org/10.1352/1944-7558-117.1.48

Nelson, J. A., Brien, M. O., & Keane, S. P. (2010). Family stress and parental response to children's negative emotions. *Journal of Family Psychology*, *23*(5), 671–679. https://doi.org/10.1037/a0015977.Family

Östberg, M., & Hagekull, B. (2000). A structural modeling approach to the understanding of parenting stress. *Journal of Clinical Child Psychology*, *29*(4), 615–625. https://doi.org/10.1207/S15374424JCCP2904

Pereira, J., Vickers, K., Atkinson, L., Gonzalez, A., Wekerle, C., & Levitan, R. (2012). Parenting stress mediates between maternal maltreatment history and maternal sensitivity in a community sample. *Child Abuse and Neglect*, *36*(5), 433–437. https://doi.org/10.1016/j.chiabu.2012.01.006

Ponnet, K., Mortelmans, D., Wouters, E., Van Leeuwen, K., Bastaits, K., & Pasteels, I. (2013). Parenting stress and marital relationship as determinants of mothers' and fathers' parenting. *Personal Relationships*, *20*(2), 259–276. https://doi.org/10.1111/j.1475-6811.2012.01404.x

Ponnet, K., Wouters, E., Mortelmans, D., Pasteels, I., De Backer, C., Van Leeuwen, K., & Van Hiel, A. (2013). The influence of mothers' and fathers' parenting stress and depressive symptoms on own and partner's parent-child communication. *Family Process*, *52*(2), 312–324. https://doi.org/10.1111/famp.12001

Raval, V. V., & Walker, B. L. (2019). Unpacking 'culture': Caregiver socialization of emotion and child functioning in diverse families. *Developmental Review*, *51*(January), 146–174. https://doi.org/10.1016/j.dr.2018.11.001

Rodriguez, C. M., & Green, A. J. (1997). Parenting stress and anger expression as predictors of child abuse potential. *Child Abuse and Neglect*, *21*(4), 367–377. https://doi.org/10.1016/S0145-2134(96)00177-9

Sack, L. (2021). *Mixed Methods Examination of Mothers' and Fathers' Emotion Socialization-Related Self- Efficacy and Links to Emotion Socialization*.[Unpublished doctoral dissertation]. University of Guelph.

Sanders, M. R., Montgomery, D. T., & Brechman-Toussaint, M. L. (2000). The mass media and the prevention of child behavior problems: The evaluation of a television series to promote positive outcomes for parents and their children. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, *41*(7), 939–948. https://doi.org/10.1017/S0021963099006198

Sanders, W., Zeman, J., Poon, J., & Miller, R. (2015). Child regulation of negative emotions and depressive symptoms: The moderating role of parental emotion socialization. *Journal of Child and Family Studies*, *24*(2), 402–415. https://doi.org/10.1007/s10826-013-9850-y

Shipman, K. L., & Zeman, J. (2001). Socialization of children's emotion regulation in mother-child dyads: A developmental psychopathology perspective. *Development and Psychopathology*, *12*(2), 317–336. https://doi.org/10.1017/S0954579401002073

Shumow, L., & Lomax, R. (2002). Parental efficacy: Predictor of parenting behavior and adolescent outcomes. *Parenting*, *2*(2), 127–150. https://doi.org/10.1207/S15327922PAR0202_03

Skinner, E., Johnson, S., & Snyder, T. (2005). Six dimensions of parenting: A motivational model. *Parenting: Science and Practice, 5*(2), 17-235. https://doi.org/10.1207/s15327922par0502_3

Suveg, C., Zeman, J., Flannery-Schroeder, E., & Cassano, M. (2005). Emotion socialization in families of children with an anxiety disorder. *Journal of Abnormal Child Psychology*, *33*(2), 145–155. https://doi.org/10.1007/s10802-005-1823-1

Thompson, R. (2014). Socialization of emotion and emotion regulation in the family. In J. Gross (Ed.), *Handbook of emotion regulation* (2nd ed., pp.173-186). The Guilford Press.

Yakub, N. A., Kadir, N. B. A., & Hoesni, S. M. (2021). The relationship between daily hassles and social support on depressive symptoms among mothers of young kids. *The Open Psychology Journal*, *14*(1), 294–299. https://doi.org/10.2174/1874350102114010294

Zeman, J., Cassano, M., Perry-Parrish, C., & Stegall, S. (2006). Emotion regulation in children and adolescents. *Journal of Developmental and Behavioral Pediatrics*, *27*(2), 155–168. https://doi.org/10.1097/00004703-200604000-00014

Zhuo, R., & Li, G. (2021). Association between second-time mother's prenatal depression and firstborn's behaviour problems: The mediation role of parenting daily hassles. *International Journal of Environmental Research and Public Health*, *18*(23), 12794. https://doi.org/10.3390/ijerph182312794

Chapter 2: Methodology

The overarching goal of this dissertation was to better understand parental emotion socialization by examining two important, yet understudied parent constructs, parenting stress and parental self-efficacy, and their relationship with parental emotion socialization. The following research questions were developed to address this goal: (a) what is the factor structure of the parenting stress construct that combines both role and task-based stress; (b) how does parenting stress relate to parental emotion socialization; and (c) how does parental self-efficacy relate to parental emotion socialization? These research questions were translated into three research studies, each following a correlational, cross-sectional research design with a sample of mothers and fathers of children between the ages of 7-11 years. In study one, the first research question was addressed by performing parallel analysis, exploratory factor analysis and confirmatory factor analysis with domain and task-based measures of parenting stress. Research question two was addressed by conducting structural equation modeling using multiple measures of parenting stress and parental emotion socialization. Finally, research question three was addressed by completing structural equation modeling with a measure of parental self-efficacy and two measures of parental emotion socialization. This chapter provides a discussion of and justification for the methods used across these research studies.

Research Design

A correlational and cross-sectional research design was followed for each study, given that data were collected from both mothers and fathers at a single time point and were analyzed to understand the relationship between key variables (Field, 2009). In cross-sectional designs, researchers collect data "from multiple groups… during a single, brief time period" (Christensen et al., 2011, p.66), while in correlational designs, researchers "look at relationships between

naturally-occurring variables rather than making statements about cause and effect" (Field, 2009, p.783). Correlational, cross-sectional designs have elucidated many factors related to parental emotion socialization; hence, this design was deemed useful for the present objectives of examining if and how parenting stress and parental self-efficacy are associated with parental emotion socialization.

There are several advantages to using a correlational, cross-sectional design. For example, these designs enable emotion socialization researchers to collect data more quickly than longitudinal or experimental designs and help eliminate biases related to testing across time, such as testing effects (De Vaus, 2001). As well, when conducting research with children and youth, it is especially important to consider stages and changes across children's development; thus, another benefit of correlational designs is the reduction of extraneous effects related to maturation. It is not surprising, then, that correlational, cross-sectional designs are used to identify factors associated with parental emotion socialization and assess the contributions of parental emotion socialization to children's outcomes. Within the emotion socialization literature, cross-sectional, correlational designs are commonly used in studies to understand parental responses (McElwain et al., 2016; Mirabile et al., 2018; Shaffer et al., 2012; Topham et al., 2011) and emotional expressivity (Are & Shaffer, 2015; Guthrie et al., 2005; Turpyn & Chaplin, 2016; Valiente et al., 2004).

There are also drawbacks with correlational, cross-sectional designs. One example is the third variable problem in which the "observed relationship between two variables is actually due to a confounding, extraneous variable" (Christensen et al., 2011, p. 62). This drawback is of concern when researchers assume that two variables are causally related, such that one variable causes the other, instead of just correlated (Christensen et al., 2011). Parenting researchers who

use this design in studies of parental emotion socialization may include variables, such as child gender and family income, to help control for the influence of extraneous variables by isolating the unique associations between parental emotion socialization and another variable of interest (Pole & Bondy, 2014). Researchers may also contend with the third variable problem by not inferring causation and by avoiding causal language when describing the relationship between variables (Christensen, 2011). This approach was used in studies two and three whereby the relationship between parenting stress, parental self-efficacy and parental emotion socialization was described using non-causal language (e.g., correlation, association, relation). Furthermore, in line with recommendations, extant parenting theory was drawn upon to justify the hypothesized direction of the pathway between parenting stress, parental self-efficacy, and parental emotion socialization, and the likelihood of alternate models and pathways were discussed for both study 2 and 3 (Bandalos & Finney, 2018).

Overall, researchers using correlational, cross-sectional research designs have identified many correlates of parental emotion socialization. These advantages of these designs are particularly beneficial when conducting research with parent and child populations, as daily life, scheduling demands, and related factors must be taken into consideration by parenting researchers.

Sampling Method

In each study, participation was limited to a specific parenting population (i.e., mothers and fathers of children between the ages of 7-11 years) to help minimize variability in parenting experiences resulting from children's developmental stage (e.g., parenting behaviours and associated stresses differ for children aged 5 versus 13). Middle childhood (i.e., ages 7-11 years) is also an important time to study parental ES because children in middle childhood experience

many interpersonal gains and may be socially motivated to moderate the intensity of their emotional expressions (Sallquist et al., 2009). As well, parents were asked to invite participation from other eligible parents. Thus, purposive and snowball sampling methods were used in the present study (Christensen et al., 2011; Goodwin, 2010). Purposive sampling occurs when researchers specify "the characteristics of the population of interest and then locate[d]… individuals who match the needed characteristics" (Christensen et al., 2011, p.171). Snowball sampling occurs when a participant is asked to identify other eligible research participants (Christensen et al., 2011). Both purposive and snowball sampling methods are examples of nonprobability sampling. In nonprobability sampling, the chances of being selected into a sample are unknown because researchers recruit participants based on their own selection criteria (Losh, 2010). Nonprobability sampling techniques, such as purposive sampling, are often used by parenting researchers. Common eligibility and exclusion criteria used with purposive sampling include: parent psychopathology (Hurrell et al., 2017; Raikes & Thompson, 2006), child psychopathology (Hurrell et al., 2015; Johnson et al., 2017), and belongingness to specific cultural groups (Raval & Walker, 2019).

Nonprobability sampling techniques are often less resource intensive (e.g., time, cost), and thus more convenient than probability sampling techniques for both researchers and parent participants. However, parenting researchers are restricted in and must exercise caution when generalizing their research findings (Christensen et al., 2011). Specifically, because the representativeness of a sample is unknown using nonprobability sampling, researchers are unable to infer whether their research findings are reflective of the population; thus, it is essential that "the demographic characteristics of nonrandom samples be described in detail … so that readers

can understand the exact characteristics of the research participants" (Christensen et al., 2011, p.164).

Nonprobability sampling may also increase the likelihood of selection bias. Selection bias refers to bias in the self-selection of individuals who decide to participate or in the researchers' selection decisions (Heckman, 1979). Selection bias is problematic if researchers generalize findings about certain parenting behaviours beyond their study sample. Common examples of selection bias within the parenting literature involve parent gender and family ethnic background. Specifically, mothers are recruited more frequently or participate in parenting research more than fathers (Hooper et al., 2018; Moed et al., 2017; Yi et al., 2016). As well, the majority of research on parental emotion socialization practices is with families of Caucasian backgrounds and from Western countries (79% Caucasian, Denham & Kochanoff, 2002; 88% Caucaisan, McQuade & Breaux, 2017; 84% Caucasian, Suveg et al., 2008). However, parenting researchers are more frequently including fathers and families with non-Caucasian backgrounds in their studies (Chaplin et al., 2010; Han et al., 2015; Hooper et al., 2018; Miller-Slough et al., 2018). Expanding the research sample of parents to include fathers and more ethnically diverse families is important for the field of parenting, and especially emotion socialization, to accurately represent the parenting population involved in socializing children.

Taken together, it is essential for emotion socialization researchers who study these aspects of parental emotion socialization, like parental responses to children's emotions, to either recruit both parents when generalizing their findings to the parent population or limit the conclusions they draw to only the parent sample they recruit. Given that nonprobability sampling techniques may result in samples that do not reflect parenting populations along certain fronts,

several recruitment strategies were implemented for this dissertation to contend with these potential selection biases. These recruitment strategies are discussed in more detail below.

Recruitment

Recruitment activities took place using social media and other online spaces to reach families across Canada and enhance the likelihood that more ethnically diverse families would participate in the current research. Participants were recruited through online social media websites (e.g., Facebook groups), online advertisements (e.g., parenting blogs, Healthy Infants and Children's Clinical Research Program), email, and word-of-mouth. To contend with the relatively greater number of online parenting groups for mothers compared to fathers, and the potential selection bias for mothers to participate in parenting research, fathers were actively recruited through social media parenting groups for fathers and online parenting blogs dedicated to fathers. For all recruitment methods, participants viewed a flyer describing the research, which outlined eligibility criteria, and invited those who met the criteria to participate.

Parents self-selected to participate in this research based on whether they met the inclusion criteria and were interested in participating. The eligibility criteria were as follows: (a) only one parent from a family was eligible to participate (i.e., either the mother or the father, but not both) to address the potential for responses from parents of the same family to inflate relationships between key variables; and (b) each parent was required to have a child in middle childhood (i.e., 7-11 years). Parents who did not meet the eligibility criteria (e.g., child was not within specified age range) were excluded from analyses.

For online recruitment methods, participants clicked on a link that took them to the survey. For word-of-mouth recruitment, participants accessed the survey by an online address that was listed on the flyer. Data were collected through an online research survey because this

format allowed for an efficient and cost-effective means to collect data from a large sample, and parents were able to start, pause, and complete the survey at the time and place of their choosing. Parents were invited to participate in a draw (odds of winning 1:50) for a $50 e-gift card to Chapters Indigo as compensation for their participation. The survey took approximately one hour to complete.

Data Collection Methods

Questionnaires

Questionnaires were determined the most appropriate method of data collection for several reasons. First, parenting researchers often use questionnaires, either on their own or in conjunction with other methods, to collect information about parenting behaviours. For example, researchers use questionnaires to measure parental reactions to children's emotions (e.g., Cassano et al. , 2007; Mirabile et al., 2018;) and emotional expressivity (e.g., Are & Shaffer, 2015; Brown et al. , 2015). Second, questionnaires are convenient to administer, capture a wide range of information (e.g., exploratory, predictive), and are often standardized which enables researchers to generalize their findings (Christensen et al., 2011). Lastly, given that recruitment efforts took place across Canada, a survey was deemed the most appropriate method to reach a broad and geographically diverse population.

There are also several drawbacks to the use of questionnaires. In general, questionnaires usually need to be short, participants may not respond to all questions, and there are opportunities for response biases, such as participants trying to present themselves in flattering ways (i.e., social desirability) or lacking awareness about their behaviours. Within the parenting literature, many questionnaires evaluating parental emotion socialization are completed by parents and are thus self-report questionnaires. The use of self-report questionnaires introduces

the potential for self-report bias. Self-report bias occurs when data for the independent and dependent variables are obtained from the same person (Podsakoff, 2003), as was the case in the current dissertation. Despite this drawback, the use of self-report questionnaires was justified for the present studies based on the nature of the dissertation. Specifically, gathering information from parents about their perspectives and experiences is indicated based on extant parenting stress and self-efficacy literatures that underscore the subjectivity of the stress experience and one's evaluation of their perceived abilities (Diener & Swedin, 2020; Wittkowski et al., 2017). In sum, questionnaires are not without drawbacks, yet they were selected as the most appropriate data collection method for this dissertation based on a host of factors that spanned from sampling and recruitment considerations to focus of the research studies.

Survey Design

The online survey was created and managed using REDCap (Harris et al., 2009), an electronic data capture tool hosted and supported by the Women and Children's Health Research Institute at the University of Alberta. Parents accessed the survey through a survey link included in the recruitment flyer and invitation email. From there, participants were taken directly to the consent form for this research. If parents had multiple children between the ages of 7 to 11 years old, then they were asked to complete the survey based on the child whose birthdate is nearest the research participation date. The next part of the survey included the research questionnaires, which are discussed in more detail in the survey measures section.

Two parents and two peers, all of whom are known to the researcher, piloted the online survey prior to data collection. The pilot participants were asked to complete the survey and provide feedback about the ease of use and accessibility of the survey platform, confusing questions, the length of the survey, and anything else they thought might pose challenges to data

collection. The pilot participants provided feedback on the online survey, including offering a financial incentive for participation, modifying demographic questions, changing the order of the questionnaires within the survey, and clarifying the language for some items of a questionnaire. Overall, various suggestions were adopted to improve the survey, though some recommendations about modifying the wording of questions were not adopted out of concern that the changes may undermine the validity and standardization of the questionnaires.

Survey Measures

Several questionnaires comprised the online research survey. To acquire information about participant characteristics, participants completed a demographic questionnaire (Appendix A). The demographic questionnaire captured the following information: (a) parent gender; (b) parent age; (c) parent ethnicity; (d) parent marital status; (e) parent mental or physical health condition; (f) parent education; (g) parent employment status; (h) household income; (i) relationship to child; (j) child gender; (k) child age; (l) number of children living in the home with parent; (m) child mental or physical health condition. Demographic information was collected to better understand the current sampling population and the generalizability of the research outcomes. Two sources of parenting stress were measured, domain-specific and daily hassles, which together comprised the parenting stress construct. To measure domain-specific parenting stress, the *Parenting Stress Index – Fourth Edition Short Form* was used (Abidin, 2012; Appendix B). The Parenting Stress Index – Fourth Edition Short Form is a 36-item, standardized and norm-referenced measure that is designed to measure stress within the parent-child relationship system. Abidin (2012) reported that the full version of the Parenting Stress Index – Fourth Edition was developed and normed using a sample of 534 mothers and 532 fathers and their children who were stratified along the education and ethnicity dimensions of the

2007 United States census data. Researchers have found the Parenting Stress Index – Fourth Edition Short Form to show good reliability and validity with parents of young children (Barroso et al., 2016; Reitman et al., 2002). The *Parenting Daily Hassles Scale* is a self-report questionnaire that was used to measure parents' experience of everyday hassles associated with parenting (Crnic & Greenberg, 1990; Appendix C). Parenting researchers have found the Parenting Daily Hassles Scale subscales to have strong internal consistency (Hooper et al., 2015), as well as appropriate construct validity with related measures, such as satisfaction with parenting and child behaviour problems (Crnic & Greenberg, 1990), with samples of mothers and young children. As well, two questionnaires were used to measure parental emotion socialization behaviours. The *Coping with Children's Negative Emotions Scale* was used to assess the ways in which parents socialize children's emotions by asking parents how they respond to common situations in which children display negative emotions (CCNES; Fabes et al., 2002; Appendix D). The CCNES was found to have acceptable internal consistency reliability as well as appropriate construct validity with a sample of mothers and fathers of young children (Baker et al., 2011; Castro et al., 2017; Fabes et al., 2002). To measure parents' positive and negative emotional expressivity, the *Self-Expressiveness in the Family Questionnaire* was used (SEFQ; Halberstadt et al., 1995; Appendix E). The SEFQ showed strong evidence of the reliability of the SEFQ with mothers of young children (Eisenberg et al., 2003; Meyer et al., 2014). Finally, parents completed the self-efficacy subscale of the *Parenting Sense of Competence Scale* to provide an indication of their parental self-efficacy (PSOC; Johnston & Mash, 1989; Appedix F). The PSOC demonstrated good internal consistency reliability in a sample of mothers and fathers of young children (Johnston & Mash, 1989) and adequate construct validity with a sample of parents with young children (Ohan et al., 2000).

Data Collection Context

COVID-19 Pandemic

Data collection began in mid-April 2020 and continued until the end of February 2021. This timeline coincided with the global COVID-19 pandemic, during which time there were significant disruptions to many aspects of day-to-day life that especially impacted parents, such as the closing of schools and daycares and mandatory work-from-home requirements. Research by Gadermann and colleagues (2021) on the impacts of COVID-19 on family mental health in Canada showed that parents experienced many stressors that affected their mental health, relationships, finances, and daily life (e.g., employment, children's education). The authors reported that for some parents, COVID-19 related stressors negatively impacted their child's mental health and were related to more negative interactions with their child, such as increased conflicts and yelling. Many parents also reported positive effects related to the COVID-19 pandemic, including more positive interactions and quality time. The positive and negative impacts of the COVID-19 pandemic are complex as portions of parents who were stress about finances or mental health also reported strengthened family connectedness. For example, more financial stress was related to increased use of harsh words with children and to increased quality time with children. Similarly, concerns that existing mental health problems would worsen were related to increased discipline, harsh words, and shouting, as well as showing more love and affection to children.

Given the nuances and recentness of the COVID-19 pandemic, it is difficult to know not only the effects the pandemic has and will continue to have on families, but also the impacts it has on the current research. With respect to data collection, it is possible that parents who were experiencing comparable stress and stressors to pre-pandemic times were more inclined to

participate in research than those who were significantly negatively impacted. It is also possible the pandemic affected attrition rates, given that parents experienced significantly more disruptions in their activities and tasks requiring their attention than in non-pandemic times. As well, parents' experiences and, in turn, reports of stress or responses to children's emotions may be influenced either positively by the increased quality time and attention afforded to families or negatively by the heightened conflict and added tasks many parents incurred (e.g., children's education). While changes to parenting due to the COVID-19 pandemic were not addressed in this dissertation because they were beyond the scope and aims of this research, there was recognition of and consideration for these potential impacts throughout all stages of research. For example, the online survey was designed so parents could pause at any point and return to their survey at a later, more convenient date and time if needed.

Summary

This multi-paper dissertation is comprised of three research studies that were conducted with mothers and fathers who completed an online survey about their parenting experience. The first study examined the parenting stress construct using a series of factor analyses to identify a broader parenting stress construct that included both domain and task-based sources of parenting stress. The second study investigated the relationship between parenting stress and parental emotion socialization using structural equation modeling. The third study also used structural equation modeling and evaluated the associations between parental self-efficacy and parental emotion socialization. Collectively, these studies will provide more knowledge on the antecedents and correlates of parental emotion socialization by showing how parenting stress and daily hassles contribute to parental emotion socialization with the overall aims of informing parenting research and interventions and supporting parents in the parenting role.

References

Abidin, R. R. (2012). *Parenting stress index* (4th ed.). Psychological Assessment Resources, Inc.

Are, F., & Shaffer, A. (2016). Family emotion expressiveness mediates the relations between maternal emotion regulation and child emotion regulation. *Child Psychiatry & Human Development*, *47*(5), 708-715.

Baker, J. K., Fenning, R. M., & Crnic, K. A. (2011). Emotion Socialization by mothers and fathers: coherence among behaviors and associations with parent attitudes and children's social competence. *Social Development*, *20*(2), 412–430. https://doi.org/10.1111/j.1467-9507.2010.00585.x

Bandalos, D. L., & Finney, S. J. (2018). Factor analysis: Exploratory and confirmatory. In G. R. Hancock, L. M. Stapleton, & R. O. Mueller. (Eds.) *The Reviewer's Guide to Quantitative Methods in the Social Sciences* (2nd ed., pp. 98-122). Routledge.

Barroso, N. E., Hungerford, G. M., Garcia, D., Graziano, P. A., & Bagner, D. M. (2016). Psychometric properties of the parenting stress index-short form (PSI-SF) in a high-risk sample of mothers and their infants. *Psychological Assessment*, *28*(10), 1331–1335. https://doi.org/10.1037/pas0000257

Brown, G. L., Craig, A. B., & Halberstadt, A. G. (2015). Parent gender differences in emotion socialization behaviors vary by ethnicity and child gender. *Parenting*, *15*(3), 135–157. https://doi.org/10.1080/15295192.2015.1053312

Cassano, M., Perry-Parrish, C., & Zeman, J. (2007). Influence of gender on parental socialization of children's sadness regulation. *Social Development*, *16*(2), 210–231. https://doi.org/10.1111/j.1467-9507.2007.00381.x

Castro, V. L., Halberstadt, A. G., & Garrett-Peters, P. T. (2017). Changing tides: Mothers'

supportive emotion socialization relates negatively to third-grade children's social adjustment in school. *Social Development*, *27*(3), 510–525. https://doi.org/10.1111/sode.12251

Chaplin, T., Casey, J., Sinha, R., & Mayes, L. C. (2010). Gender differences in caregiver emotion socialization of low-income toddlers. *New Directions for Child and Adolescent Development* (Vol. 128, pp. 11–27). https://doi.org/10.1002/cd

Christensen, L. B., Johnson, B., & Turner, L. A. (2011). *Research methods, design, and analysis* (12th eds.). Pearson Education Limited.

Crnic, K. A., & Greenberg, M. T. (1990). Minor parenting stresses with young children. *Child Development*, *61*(5), 1628–1637.

De Vaus, D. (2001). *Research design in social research*. SAGE Publications.

Denham, S. A., & Kochanoff, A. T. (2002). Parental contributions to preschoolers' understanding of emotion. *Marriage & Family Review*, *34*(3–4), 311–343. https://doi.org/10.1300/J002v34n03

Diener, M. L., & Swedin, M. N. (2020). Parenting stress. In S. H. Hupp and J. D. Jewell (Eds.), *The Encyclopedia of Child and Adolescent Development* (pp. 1–11). John Wiley & Sons. https://doi.org/10.1002/9781119171492.wecad206

Eisenberg, N., Gershoff, E. T., Fabes, R. A., Shepard, S. A., Cumberland, A., Losoya, S. H., Guthrie, I. K., & Murhpy, B. C. (2001). Mothers' emotional expressivity and children's behaviour problems and social competence: mediation through children's regulation. *Developmental Psychology*, *37*(4), 475–490.

Eisenberg, N., Valiente, C., Morris, A. S., Fabes, R. A., Cumberland, A., Reiser, M., … Losoya, S. (2003). Longitudinal relations among parental emotional expressivity, children's

regulation, and quality of socioemotional functioning. *Developmental Psychology*, *39*(1), 3–19. https://doi.org/10.1037/0012-1649.39.1.3

Ellis, B. H., Alisic, E., Reiss, A., Dishion, T., & Fisher, P. A. (2014). Emotion regulation among preschoolers on a continuum of risk: The role of maternal emotion coaching. *Journal of child and family studies*, *23*(6), 965-974.

Fabes, R. A., Poulin, R. E., Eisenberg, N., & Madden-Derdich, D. A. (2002). The Coping with Children's Negative Emotions Scale (CNNES): Psychometric properties and relations with children's emotional competence. *Marriage & Family Review*, *34*(3–4), 285–310. https://doi.org/10.1300/J002v34n03

Field, A. (2009). *Discovering Statistics Using SPSS* (Third ed.). SAGE Publications.

Fiorilli, C., De Stasio, S., Di Chicchio, C., & Chan, S. M. (2015). Emotion socialization practices in Italian and Hong Kong-Chinese mothers. *SpringerPlus*, *4*(1), 1–9. https://doi.org/10.1186/s40064-015-1550-1

Fishman, J. L., Raval, V. V., Daga, S. S., & Raj, S. P. (2014). Meta-emotion philosophy among Asian Indian immigrant mothers in the United States. *Qualitative Health Research*, *24*(7), 875–889. https://doi.org/10.1177/1049732314537403

Fosco, G. M., & Grych, J. H. (2007). Emotional expression in the family as a context for children's appraisals of interparental conflict. *Journal of Family Psychology*, *21*(2), 248–258. https://doi.org/10.1037/0893-3200.21.2.248

Frankel, L. A., Umemura, T., Jacobvitz, D., & Hazen, N. (2015). Marital conflict and parental responses to infant negative emotions: Relations with toddler emotional regulation. *Infant Behavior and Development*, *40*, 73–83. https://doi.org/10.1016/j.infbeh.2015.03.004

Gadermann, A. C., Thomson, K. C., Richardson, C. G., Gagné, M., Mcauliffe, C., Hirani, S., &

Jenkins, E. (2021). Examining the impacts of the COVID-19 pandemic on family mental health in Canada: Findings from a national cross-sectional study. *BMJ Open*, *11*(1), 1–11. https://doi.org/10.1136/bmjopen-2020-042871

Goodwin, C. J. (2010). *Research methods in psychology: Methods and design* (6th ed.). John Wiley & Sons.

Guthrie, I. K., Shepard, S. A., Murphy, B. C., Losoya, S. H., Gershoff, E. T., Cumberland, A. J., Eisenberg, N., & Fabes, R. A. (2005). Mother's emotional expressivity and children's behavior problems and social competence: Mediation through children's regulation. *Developmental Psychology*, *37*(4), 475–490. https://doi.org/10.1037/0012-1649.37.4.475

Halberstadt, A. G., Cassidy, J., Stifter, C. A., Parke, R. D., & Fox, N. A. (1995). Self-expressiveness within the family context: Psychometric support for a new measure. *Psychological Assessment*, *7*(1), 93–103. https://doi.org/10.1037/1040-3590.7.1.93

Han, Z. R., Qian, J., Gao, M., & Dong, J. (2015). Emotion socialization mechanisms linking Chinese fathers', mothers', and children's emotion regulation: A moderated mediation model. *Journal of Child and Family Studies*, *24*(12), 3570–3579. https://doi.org/10.1007/s10826-015-0158-y

Harris, P. A., Taylor, R., Thielke, R., Payne, J., Gonzalez, N., & Conde, J. G. (2009). Research electronic data capture (REDCap): A metadata-driven methodology and workflow process for providing translational research informatics support. *Journal of Biomedical Informatics*, *42*(2), 377–381. https://doi.org/10.1016/j.jbi.2008.08.010

Heckman, J. J. (1979). Sample selection bias as a specification error. *Econometrica*, *47*(1), 153–161.

Hooper, E., Feng, X., Christian, L., & Slesnick, N. (2015). Emotion expression, emotionality,

depressive symptoms, and stress: Maternal profiles related to child outcomes. *Journal of Abnormal Child Psychology*, *43*(7), 1319–1331. https://doi.org/10.1007/s10802-015-0019-6

Hooper, E. G., Wu, Q., Ku, S., Gerhardt, M., & Feng, X. (2018). Maternal emotion socialization and child outcomes among African Americans and European Americans. *Journal of Child and Family Studies*, *27*(6), 1870–1880. https://doi.org/10.1007/s10826-018-1020-9

Hurrell, K. E., Houwing, F. L., & Hudson, J. L. (2017). Parental meta-emotion philosophy and emotion coaching in families of children and adolescents with an anxiety disorder. *Journal of Abnormal Child Psychology*, *45*(3), 569–582. https://doi.org/10.1007/s10802-016-0180-6

Hurrell, K. E., Hudson, J. L., & Schniering, C. A. (2015). Parental reactions to children's negative emotions: Relationships with emotion regulation in children with an anxiety disorder. *Journal of Anxiety Disorders*, *29*, 72–82. https://doi.org/10.1016/j.janxdis.2014.10.008

Johnson, A. M., Hawes, D. J., Eisenberg, N., Kohlhoff, J., & Dudeney, J. (2017). Emotion socialization and child conduct problems: A comprehensive review and meta-analysis. *Clinical Psychology Review*, *54*(September 2016), 65–80. https://doi.org/10.1016/j.cpr.2017.04.001

Johnston, C., & Mash, E. J. (1989). A measure of parenting satisfaction and efficacy. *Journal of Clinical Child Psychology*, *18*(2), 167–175. https://doi.org/10.1207/s15374424jccp1802

Klimes-Dougan, B., Brand, A. E., Zahn-Waxler, C., Usher, B., Hastings, P. D., Kendziora, K., & Garside, R. B. (2007). Parental emotion socialization in adolescence: Differences in sex, age and problem status. *Social Development*, *16*(2), 326–342. https://doi.org/10.1111/j.1467-9507.2007.00387.x

Gadermann, A. C., Thomson, K. C., Richardson, C. G., Gagné, M., Mcauliffe, C., Hirani, S., &

Jenkins, E. (2021). Examining the impacts of the COVID-19 pandemic on family mental health in Canada: findings from a national cross-sectional study. *BMJ Open*, *11*(1), 1–11. https://doi.org/10.1136/bmjopen-2020-042871

Leerkes, E. M., Supple, A. J., Su, J., & Cavanaugh, A. M. (2013). Links between remembered childhood emotion socialization and adult adjustment. *Journal of Family Issues*, *36*(13), 1854–1877. https://doi.org/10.1177/0192513x13505567

Losh, S. C. (2010). Sampling error. In N. Salkind (Ed.), *Encyclopedia of Research Design: Qualitative Research* (pp. 1159–1164). SAGE Publications. https://doi.org/10.4135/9781412961288

Lunkenheimer, E. S., Shields, A. M., & Cortina, K. S. (2007). Parental emotion coaching and dismissing in family interaction. *Social Development*, *16*(2), 232–248. https://doi.org/10.1111/j.1467-9507.2007.00382.x

McElwain, N. L., Halberstadt, A. G., & Volling, B. L. (2016). Mother-and-father-reported preditions to children's negative emotions: Relations to young children's emotional understanding and friendship quality. *Child Development*, *78*(5), 1407–1425. https://doi.org/10.1093/mp/ssr073

McQuade, J. D., & Breaux, R. P. (2017). Parent emotion socialization and pre-adolescent's social and emotional adjustment: Moderating effects of autonomic nervous system reactivity. *Biological Psychology*, *130*(October), 67–76. https://doi.org/10.1016/j.biopsycho.2017.10.007

Meyer, S., Raikes, H. A., Virmani, E., Waters, S., & Thompson, R. A. (2014). Parent emotion representations and the socialization of emotion regulation in the family. *International Journal of Behavioral Development*, *38*(2), 164–173.

https://doi.org/10.1177/0165025413519014

Michalik, N. M., Eisenberg, N., Spinrad, T. L., Ladd, B., Thompson, M., & Valiente, C. (2007). Longitudinal relations among parental emotional expressivity and sympathy and prosocial behavior in adolescence. *Social Development*, *16*(2), 286–309. https://doi.org/10.1111/j.1467-9507.2007.00385.x

Miller-Slough, R. L., Dunsmore, J. C., Zeman, J. L., Sanders, W. M., & Poon, J. A. (2018). Maternal and paternal reactions to child sadness predict children's psychosocial outcomes: A family-centered approach. *Social Development*, *27*(3), 495–509. https://doi.org/10.1111/sode.12244

Mirabile, S. P. (2015). Ignoring children's emotions: A novel ignoring subscale for the Coping with Children's Negative Emotions Scale. *European Journal of Developmental Psychology*, *12*(4), 459–471. https://doi.org/10.1080/17405629.2015.1037735

Mirabile, S. P., Oertwig, D., & Halberstadt, A. G. (2018). Parent emotion socialization and children's socioemotional adjustment: When is supportiveness no longer supportive? *Social Development*, *27*(3), 466–481. https://doi.org/10.1111/sode.12226

Moed, A., Dix, T., Anderson, E. R., & Greene, S. M. (2017). Expressing negative emotions to children: Mothers' aversion sensitivity and children's adjustment. *Journal of Family Psychology*, *31*(2), 224–233. https://doi.org/10.1037/fam0000239

Morey, J. N., & Gentzler, A. L. (2017). Parents' perceptions of and responses to children's emotions: Relations with meta-emotion philosophy and adult attachment. *Parenting*, *17*(2), 73–103. https://doi.org/10.1080/15295192.2017.1304782

Nelson, J. A., Brien, M. O., & Keane, S. P. (2010). Family stress and parental response to children's negative emotions. *Journal of Family Psychology*, *23*(5), 671–679.

https://doi.org/10.1037/a0015977.Family

Nelson, J. A., Perry, N. B., O'Brien, M., Calkins, S. D., Keane, S. P., & Shanahan, L. (2016). Mothers' and fathers' reports of their supportive responses to their children's negative emotions over time. *Parenting*, *16*(1), 56–62. https://doi.org/10.1080/15295192.2016.1116895

Ohan, J. L., Leung, D. W., & Johnston, C. (2000). The parenting sense of competence scale: Evidence of a stable factor structure and validity. *Canadian Journal of Behavioural Science*, *32*(4), 251–261. https://doi.org/10.1037/h0087122

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, *88*(5), 879–903. https://doi.org/10.1037/0021-9010.88.5.879

Pole, J. D., & Bondy, S. J. (2014). Control Variables. In N. Salkind (Ed.), *Encyclopedia of research design* (pp. 253–255). SAGE Publications.

Raikes, H. A., & Thompson, R. A. (2006). Family emotional climate, attachment security and young children's emotion knowledge in a high risk sample. *British Journal of Developmental Psychology*, *24*(1), 89–104. https://doi.org/10.1348/026151005X70427

Ramsden, S., & Hubbard, J. (2002). Family expressiveness and parental emotion coaching: Their role in children's emotion regulation and aggression. *Journal of Abnormal Child Psychology*, *30*(6), 657–667. http://link.springer.com/article/10.1023/A:1020819915881

Rauer, A. J., & Volling, B. L. (2005). The role of husbands' and wives' emotional expressivity in the marital relationship. *Sex Roles*, *52*(9–10), 577–587. https://doi.org/10.1007/s11199-005-3726-6

Raval, V. V., & Walker, B. L. (2019). Unpacking 'culture': Caregiver socialization of emotion and child functioning in diverse families. *Developmental Review*, *51*(January), 146–174. https://doi.org/10.1016/j.dr.2018.11.001

Reitman, D., Currier, R. O., & Stickle, T. R. (2002). A critical evaluation of the parenting stress index-short form (PSI-SF) in a Head Start population. *Journal of Clinical Child and Adolescent Psychology*, *31*(3), 384–392. https://doi.org/10.1207/S15374424JCCP3103_10

Roberts, W., & Strayer, J. (2004). Children's anger, emotional expressiveness, and empathy: Relations with parents' empathy, emotional expressiveness, and parenting practices. *Social Development*, *13*(2), 229–254.

Rogers, M. L., Halberstadt, A. G., Castro, V. L., MacCormack, J. K., & Garrett-Peters, P. (2016). Maternal emotion socialization differentially predicts third-grade children's emotion regulation and lability. *Emotion*, *16*(2), 280–291. https://doi.org/http://dx.doi.org/10.1037/emo0000142

Sallquist, J. V., Eisenberg, N., Spinrad, T. L., Reiser, M., Hofer, C., Zhou, Q., … Eggum, N. (2009). Positive and negative emotionality: Trajectories across six years and relations with social competence. *Emotion*, *9*(1), 15–28. https://doi.org/10.1037/a0013970

Shaffer, A., Suveg, C., Thomassin, K., & Bradbury, L. L. (2012). Emotion Socialization in the context of family risks: Links to child emotion regulation. *Journal of Child and Family Studies*, *21*(6), 917–924. https://doi.org/10.1007/s10826-011-9551-3

Suveg, C., Sood, E., Barmish, A., & 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*(6), 875–884. https://doi.org/10.1037/a0012861.

Topham, G. L., Hubbs-Tait, L., Rutledge, J. M., Page, M. C., Kennedy, T. S., Shriver, L. H., &

Harrist, A. W. (2011). Parenting styles, parental response to child emotion, and family emotional responsiveness are related to child emotional eating. *Appetite*, *56*(2), 261–264. https://doi.org/10.1016/j.appet.2011.01.007

Turpyn, C. C., & Chaplin, T. M. (2016). Mindful parenting and parents' emotion expression: effects on adolescent risk behaviors. *Mindfulness*, *7*(1), 246–254. https://doi.org/10.1007/s12671-015-0440-5

Turunen, J. (2013). Family structure, gender, and adolescent emotional well-being. *Journal of Divorce and Remarriage*, *54*(6), 476–504. https://doi.org/10.1080/10502556.2013.810982

Valiente, C., Eisenberg, N., Shepard, S. A., Fabes, R. A., Cumberland, A. J., Losoya, S. H., & Spinrad, T. L. (2004). The relations of mothers' negative expressivity to children's experience and expression of negative emotion. *Journal of Applied Developmental Psychology*, *25*(2), 215–235. https://doi.org/10.1016/j.appdev.2004.02.006

Waters, S. F., Virmani, E. A., Thompson, R. A., Meyer, S., Raikes, H. A., & Jochem, R. (2010). Emotion regulation and attachment: Unpacking two constructs and their association. *Journal of Psychopathology and Behavioral Assessment*, *32*(1), 37–47. https://doi.org/10.1007/s10862-009-9163-z

Wilson, K. R., Havighurst, S. S., & Harley, A. E. (2012). Tuning in to Kids: An effectiveness trial of a parenting program targeting emotion socialization of preschoolers. *Journal of Family Psychology*, *26*(1), 56–65. https://doi.org/10.1037/a0026480

Wittkowski, A., Garrett, C., Calam, R., & Weisberg, D. (2017). Self-report measures of parental self-efficacy: A systematic review of the current literature. *Journal of Child and Family Studies*, *26*(11), 2960–2978. https://doi.org/10.1007/s10826-017-0830-5

Wong, M. S., McElwain, N. L., & Halberstadt, A. G. (2009). Parent, family, and child

characteristics: Associations with mother- and father-reported emotion socialization practices. *Journal of Family Psychology*, *23*(4), 452–463. https://doi.org/10.1037/a0015552

Yap, M. B. H., Allen, N. B., Ladouceur, C. D., Yap, M. B. H., & Allen, N. B. (2018). Maternal socialization of positive affect: The impact of invalidation on adolescent emotion regulation and depressive symptomatology. *Child Development*, *79*(5), 1415–1431.

Yi, C. Y., Gentzler, A. L., Ramsey, M. A., & Root, A. E. (2016). Linking maternal socialization of positive emotions to children's behavioral problems: The moderating role of self-control. *Journal of Child and Family Studies*, *25*(5), 1550–1558. https://doi.org/10.1007/s10826-015-0329-x

Chapter 3:

Study 1. Towards a Broader Parenting Stress Construct

Abstract

The origins of parenting stress are often explained either by Parent-Child-Relationship theory, which posits parenting stress originates from either person or relation dimensions (e.g., parent, child, parent-child relationship), or Daily Hassles theory, which proposes parenting stress arises from everyday hassles associated with parenting. Despite their prevalence and conceptual similarities, the relationship between parent-child relationship and daily hassle sources of parenting stress is unclear and lacks empirical investigation. In the present study, parent-child relationship and daily hassle sources of parenting stress were examined to determine how they collectively reflect the parenting stress construct. Parallel analysis and exploratory factor analysis were conducted on the *Parenting Stress Index – Fourth Edition Short Form* and *Parenting Daily Hassles Questionnaire* with a sample of 94 parents. The results of the parallel analysis and exploratory factor analysis were assessed through a confirmatory factor analysis with a second, separate sample of 159 parents. The findings of this study provide support for a four-factor model of parenting stress that includes Parental Distress, Strained Parent-Child Interactions, Challenging Child Behaviours, and Parenting Hassles factors. These factors reflect sources of parenting stress from both the Parent-Child-Relationship and Daily Hassles theories, supporting the existence of a broader parenting stress construct. Recommendations are made to further identify important sources of parenting stress and continue enhancing knowledge of the parenting stress construct.

Keywords: parenting stress, parent-child-relationship theory, daily hassles theory, exploratory factor analysis, confirmatory factor analysis

Introduction

Parenting stress is the unique stress associated with the parenting role (Deater-Deckard & Panneton, 2017). One common theory of parenting stress is that problematic functioning within the parent, child, and/or parent-child relationship domains contribute to parenting stress (Abidin, 1990). An alternate theory of parenting stress suggests everyday parenting hassles are the main sources of parenting stress (Crnic & Booth, 1991). Ample research shows both parent-child-relationship and daily hassle sources of parenting stress contribute valuable knowledge to the parenting and child development literatures; however, these sources of stress tend to be studied independently which limits knowledge of and research on parenting stress. The purpose of the present study is to analyze the parent-child-relationship and daily hassle sources of parenting stress to determine whether these sources uniquely contribute to the parenting stress construct when studied together thereby providing a broader conceptualization of parenting stress. The current study used exploratory and confirmatory factor analysis to determine the factor structure of the *Parenting Stress Index – Fourth Edition Short Form* and *Parenting Daily Hassles Questionnaire*. A four-factor model of parenting stress was found, and a broader parenting stress construct encompassing parent-child-relationship and daily hassle sources of stress is described.

Parenting Stress as a Unique Form of Stress

Stress is a common human experience; however, parenting stress is a unique type of stress that results specifically from the parenting role (Deater-Deckard & Panneton, 2017). Deater-Deckard (2004) defined parenting stress as "a set of processes that lead to aversive psychological and physiological reactions arising from attempts to adapt to the demands of parenthood" (p. 6). There exist several distinctions that are germane to the conceptualization of stress and, more specifically, parenting stress. First, there are differences between the term

stressors, stress, and distress. Wheaton and colleagues (2013) distinguished between stressors, stress responses, and distress by clarifying that stressors are external conditions of threat that pose a challenge to a person's state of functioning and, in turn, precipitate a stress response. Distress, on the other hand, encompasses the maladaptive (e.g., depression) responses a person experiences in the presence of stress, depending on their ability to cope with such stress (Wheaton et al., 2013). Second, the construct of parenting stress may be distinguished from the construct of stressed parents, such that parenting stress refers to a type of stress that may arise from one's caregiving role, whereas stressed parents refers to parents who experience stressors that are external to the caregiving role (Deater-Deckard & Panneton, 2017).

An early review conducted by Deater-Deckard (1998) described four components of the stress process which includes an external causal agent or event, appraisal of the causal agent or event that determines severity of stress, efforts to cope with stressful agent or event, and a resulting stress response effecting mind and body. Deater-Deckard subsequently applied this process to yield the following key components of the parenting stress process: (a) the child and/or parent role is the causal agent of parenting stress, (b) parent appraisals of the cause shape their experience of stress, (c) coping efforts interact with stress and affect the degree of stress experienced, and (d) parenting stress impacts parent and children. These components align with influential theories of stress, such as Lazarus and Folkman's transactional theory of stress, that propose stress arises due to appraisals of threatening events or stimuli in environment that exceed the ability to cope (Biggs et al., 2017; Lazarus & Folkman, 1984). The focus of the current study is on the first step in the parenting stress process: child and parent related sources of parenting stress.

Sources of Parenting Stress

Parenting researchers commonly discuss the source of parenting stress as stemming from either problematic functioning within the family system or everyday stressors inherent to parenting (Crnic & Low, 2002; Crnic & Ross, 2017; Diener & Swedin, 2020). While both conceptualizations speak to parenting stress, the sources of parenting stress – whether they result from dysfunction or daily parenting hassles – are presented as alternative perspectives in the parenting literature (Crnic & Ross, 2017; Diener & Swedin, 2020). The two theories of parenting stress that describe each of these perspectives are presented below.

Parent-Child-Relationship Sources of Parenting Stress. The perspective that problematic functioning is the cause of parenting stress reflects early parenting research by Abidin (1990, 2012). In this work, Abidin hypothesized that parenting stress stemmed from dysfunction in the parent-child system, such as parents' mental health difficulties or problematic child behaviours. Specifically, Abidin's model adheres to a domain-specific approach to understanding the causes of parenting stress because parenting stress is posited to arise from the parent, child, and/or parent-child relationship domains (Abidin, 1990; Deater-Deckard, 2004). This model is called Parent-Child-Relationship theory due to its focus on domains within the parent-child system (Deater-Deckard, 2004; Diener & Swedin, 2020). According to Parent-Child-Relationship theory, the parent domain reflects parent characteristics or perceptions about the parenting role that are sources of parenting stress, such as parental psychopathology or the belief that parental responsibilities are overwhelming. In the child domain, parenting stress arises from parents' perceptions about the challenges and difficulties of caring for their child. Finally, sources of parenting stress stemming from the parent-child relationship domain involve challenges with parent-child relationship and conflict between parents and their child. According to Parent-Child-Relationship theory, each domain is an independent source of parenting stress

and has a bidirectional relationship with the other domains (Diener & Swedin, 2020), such that increases in problematic child behaviours may increase symptoms of depression in parents, or heightened anxiety in the parents may result in more conflict within parent-child interactions.

Daily Hassle Sources of Parenting Stress. Alternatively, parenting stress may be viewed as an everyday occurrence, with the events and interactions that most parents face, such as managing challenging child behaviours, serving as sources of parenting stress (Crnic & Greenberg, 1990). This theory is called the Daily Hassles theory and was introduced by Crnic and Greenberg (1990). The authors described parenting daily hassles as low-level, chronic stressors commonly experienced by families. Examples of parenting daily hassles include scheduling difficulties, typical child misbehaviour, and time-consuming caregiving tasks (Crnic & Greenberg, 1990; Crnic & Low, 2002). Although these hassles are not large scale events, they contribute to parenting stress due to their ongoing nature, cumulative effects, and perceived intensity (Crnic & Low, 2002). This perspective was proposed by Crnic and Low (2002), who advocated for the added value of exploring the cumulation of smaller stressors and daily life events rather than large scale events to understanding parenting stress. Moreover, Crnic and Low argued that parenting stress was experienced by all parents and is a normative characteristic of the parenting role, making it worthy of study. Given the nature of these hassles, Daily Hassles theory adheres to a normative approach to parenting stress. That is, parenting stress is a result of accumulating everyday parenting hassles and are, in turn, a normative and inevitable part of parenting (Deater-Deckard, 2004).

Research on Parent-Child-Relationship and Daily Hassle Sources of Parenting Stress

Many researchers examine parent-child-relationship sources of parenting stress when evaluating how parenting stress relates to parenting behaviours and child development.

Researchers have found associations between parent-child-relationship sources of parenting stress and conflict in mother-child dyads (Camisasca et al., 2019; Crnic et al., 2005), less supportive parenting style (Mak et al., 2020; Ponnet et al., 2013), children's mental health difficulties, such as anxiety (Cho et al., 2021; Platt et al., 2016), depression (Lin et al., 2017), externalizing behaviours (Mackler et al., 2015; Mak et al., 2020; Weijers et al., 2018); and parental mental health challenges (Farmer & Lee, 2011; Huizink et al., 2017). For example, in a study of parent-related sources of parenting stress (i.e., parent domain), researchers that examined maternal mood during pregnancy found that both general and pregnancy-specific anxiety significantly predicted maternal parenting stress postpartum (Huizink et al., 2017). Furthermore, a large body of research shows that parents of children diagnosed with a developmental disability endorse high levels of domain-based parenting stress (Cousino & Hazen, 2013; Gupta, 2007; Hayes & Watson, 2013). For example, Woodman and colleagues (2015) examined the relationship between children's problem behaviours and child-related parenting stress (i.e., child domain) with a sample of children diagnosed with a developmental disorder and their mothers across a 15-year time span. The authors identified a reciprocal relationship between children's internalizing behaviour problems (e.g., anxiety, social withdrawal, sadness) and mothers' parent-child-relationship parenting stress during early childhood. Their results also yielded a child-driven relationship whereby children's externalizing behaviour problems (e.g., poor impulse control, non-compliance) predicted subsequent parenting stress in mothers. Thus, parent-child-relationship sources of parenting stress offer important insights into how problematic functioning within the parent, child, and parent-child relationship domains are linked to parenting stress, as well as maladaptive outcomes for both parents and children.

Likewise, many parenting researchers examine daily hassle sources of parenting stress when investigating the relations between parenting stress and parent and child related outcomes. For example, Crnic and Greenberg (1990) studied the influences of daily hassle sources of parenting stress and general life stress on several aspects of parenting and parent-child interactions with a sample of mothers and young children. The authors found everyday parenting stress predicted increased behaviour problems in children and lower parental responsivitiy, over and above mothers' general life stress. Similarly, Crnic and colleagues (2005) examined the effects of parenting daily hassle sources of parenting stress on parent behaviours, child behaviours, and relationship quality with a sample of mothers and children across a two year period. The findings of their study showed everyday parenting stress predicted mothers' reduced positivity and increased negativity during future interactions with their child, as well as less enjoyment by both mother and child during dyadic interactions. Since then, researchers have linked daily hassle sources of parenting stress to a host of maladaptive parent and child outcomes. For example, parenting stress is associated with parent mental health challenges, such as depression (Yakub et al., 2021); children's problem behaviours (Hooper et al., 2015; Walerius et al., 2016; Zhuo & Li, 2021); and reduced parent well-being (Gerstein et al., 2009). Taken together, the daily hassles perspective of parenting stress affords valuable knowledge about the everyday sources of parenting stress that significantly impact parents and children.

Towards a Broader Perspective on the Sources of Parenting Stress

Although the parent-child-relationship and daily hassle perspectives afford knowledge about the etiology of parenting stress and independently contribute to the parenting stress literature, these sources of parenting stress are often studied separately by parenting researchers (Camisasca et al., 2019; Cho et al., 2021; Mak et al., 2020; Yakub et al., 2021; Zhuo & Li, 2021).

This trend has resulted in more research on parent-child-relationship than daily hassle sources of parenting stress (Diener & Swedin, 2020; Holly et al., 2019). For example, Holly et al. (2019) reviewed 196 articles from 1980 to 2018 that focused on parenting stress in parents of youth diagnosed with clinically significant mental, emotional, or behavioural challenges (i.e., clinical samples) to evaluate approaches and measures of parenting stress used by parenting researchers. The authors found parenting researchers evaluated parent-child-relationship sources of parenting stress in 134 articles, reflecting about 70% of the studies reviewed. In contrast, parenting daily hassles were examined in 6 articles, reflecting approximately 3% of studies of parenting stress.

Notably, very few researchers have simultaneously examined parent-child-relationship and daily hassle sources of stress. For example, none of the studies reviewed by Holly et al. (2019) included both parent-child-relationship and daily hassle sources of parenting stress. A few exceptions within the parenting literature include studies by BeLue et al. (2015), Mazur (2006), and Östberg & Hagekull (2000). These researchers measured both parent-child-relationship and daily hassle sources of parenting stress; however, their conceptualization of these parenting stresses is incongruent with the theory of parenting daily hassles proposed by Crnic and Greenberg (1990). Specifically, across these studies, parenting daily hassles were conceptualized not as a measure of parenting stress, but rather as caregiving hassles that were included as one of several predictors of parent-child-relationship sources of parenting stress. A consistent pattern emerged across the results of these studies whereby daily hassle sources of parenting stress were moderately positively related to and predictive of parenting stress arising from parent-child-relationship domains. Taken together, these studies offer preliminary evidence that parent-child-relationship domains of parenting stress and parenting daily hassles are associated and illustrate the lack of theoretical congruity regarding the conceptualization of parent-child-relationship and

daily hassle sources of parenting stress. Overall, it is evident that research including both parent-child-relationship and daily hassle sources of parenting stress would benefit from further examination and delineation.

The lack of investigation and conceptual clarity on parent-child-relationship and daily hassle sources of parenting stress incurs several concerns. First, conceptualization of parenting stress sources is unclear. Parenting daily hassles are sometimes considered a source of normative, everyday parenting stress (Crnic et al., 2005; Walerius et al., 2016; Yakub et al., 2021), and other times as a predictor of parenting stress stemming from problematic functioning within the family system (BeLue et al., 2015; Mazur, 2006; Östberg & Hagekull, 2000). Second, there appears to be no empirical evidence assessing the shared theoretical underpinnings of parent-child-relationship and daily hassle sources of parenting stress. This research is needed to understand whether both sources of parenting stress, which are posited to tap into different etiologies of the same construct, collectively reflect parenting stress. Third, researching and treating the sources of parenting stress as isolated constructs may present a narrower and more limited understanding of parenting stress and its effects on families. Since the Parent-Child-Relationship and Daily Hassles theories both speak to parenting stress, there is an opportunity to generate a broader construct of parenting stress that encompasses both parent-child-relationship and daily hassle sources of parenting stress. Examining the factor structure of the parenting stress construct may provide initial evidence of whether parenting stress emerges from both parent, child, and parent-child relationship domains and parenting daily hassles. Thus, simultaneously evaluating the parent-child-relationship and daily hassle sources of parenting stress may contribute to a broader perspective of parenting stress sources and allow for a more complete understanding of the

parenting stress construct than either the problematic functioning or normative perspectives could provide alone.

The purpose of this study was to enhance knowledge of parenting stress by examining parent-child-relationship and daily hassle sources of parent stress. Specifically, this study sought to answer the following research question: how do parent-child-relationship and daily hassle sources of stress collectively reflect the parenting stress construct? The *Parenting Stress Index – Fourth Edition Short Form* and *Parenting Daily Hassles Scale* were used to measure parent-child-relationship and daily hassle sources of parenting stress respectively because they are commonly used measures of parenting stress from the problematic functioning and everyday stressor perspectives (Holly et al., 2019). The Parenting Stress Index – Fourth Edition Short Form is derived from the evidence-based Parenting Stress Index and measures parental distress, challenging child behaviour, and dysfunctional parent-child interactions (Abidin, 2012). The Parenting Daily Hassles Scale is a measure that captures the frequency and intensity of everyday parenting hassles (Crnic & Greenberg, 1990). A 50-item merged questionnaire, drawing from both the Parenting Stress Index – Fourth Edition Short Form and the Parenting Daily Hassles Scale, was used with the current sample to determine the factor structure of a broader parenting stress construct. Based on previous Parent-Child-Relationship and Daily Hassles theories, a four-factor solution is hypothesized. Specifically, it is anticipated three domain-based factors will emerge (i.e., parent, child, and relationship domains), and one parenting daily hassle factor will emerge, offering support that parenting stress stems from parent-child-relationship domains and parenting daily hassles alike. Factors are also hypothesized to be moderately positively associated with one another.

Method

Participants

The sample for the present study included 234 mothers and 19 fathers, for a total sample of 253 parents. Parents' ages ranged from 24 to 54 years (M = 39.24 SD = 5.34). Many parents identified as Caucasian (83% mothers, 47.4% fathers), no previous mental or physical health conditions (80% mothers, 96% fathers), and graduate training as their highest level of education (35.1% mothers, 52.6% fathers). Most parents were employed (53% mothers, 79% fathers), and the median family income was $100,000 - $125,000 Canadian. As well, 79% of parents were married and had two children. Parents also reported average levels of parenting stress. Most participants' children were male (55.7%), and the mean child age was eight years old (M = 8.62, SD = 1.33). Most parents reported their child had no previous mental or physical health conditions (81%).

Research Design

The present study followed a correlational, cross sectional research design to examine parenting stress. The eligibility criteria for participation for this study included having a child between the ages of 7-11 years (i.e., middle childhood) and participation from one parent per family. Parents were recruited across Canada via online advertisement and email invitation via social media websites, research databases, and word-of-mouth from April 2020 to February 2021. Data were collected using REDCap, an electronic data capture tool hosted and supported by the Women and Children's Health Research Institute at the University of Alberta (Harris et al., 2009). It took parents approximately 15 minutes to complete both questionnaires. Parents were invited to participate in a draw for an e-gift card to a bookstore as compensation for their participation.

In line with previous research, sample size estimates were based on variable communality values greater than 0.6 and overdetermination of a factor (Cater & Machtmes, 2008; Hogarty et al., 2005; MacCallum et al., 1999). The current study had communalities greater than .6 for 48 of 53 parenting stress variables (Cater & Machtmes, 2008) and was overidentified.

Measures

Parent Child Relationship Sources of Parenting Stress. The *Parenting Stress Index – Fourth Edition Short Form* is a standardized and norm-referenced questionnaire (Abidin, 2012). The Parenting Stress Index includes 33 items that are rated on a 5-point scale from 1 (*strongly disagree*) to 5 (*strongly agree*) and three items that use a different response option. These items comprise three, 12-item subscales: (a) parent distress (e.g., parents' sense of restriction, conflict, social support, and competence in their role as a parent); (b) difficult child (i.e., parents' perceptions of how easy or difficult it is to care for their child); and (c) parent-child dysfunctional interaction (i.e., parents' satisfaction in their interactions with their child). Raw scores for each subscale range from 12 to 60 and sum to create a total stress score, ranging from 36 to 180. Total stress scores between 54 - 109 are considered average, 110 - 113 are elevated, and above 114 are clinically significant. researchers have found good internal consistency estimates for each subscale and total stress score (α = .75 - .91) and test-retest reliability estimates for the subscales and total stress score (α = .61 - .82) of the Parenting Stress Index in samples of mothers and infants (Barroso et al., 2016). In the current sample, internal consistency reliability estimates were also excellent for the parent distress (α = .83), difficult child (α = .90), and parent-child dysfunctional interaction (α = .88) subscales, respectively.

Daily Hassle Sources of Parenting Stress. The *Parenting Daily Hassles Scale* is a self-report questionnaire of everyday hassles associated with parenting (Crnic & Greenberg, 1990).

The Parenting Daily Hassles Scale contains 20 items describing hassles that parents may experience. For each event, parents are asked to rate how often they experience a given hassle, ranging from 1 (*rarely*) to 5 (*constantly*), and the intensity of the hassle, ranging from 1 (*low*) to 5 (*high*). Items are summed and comprise a frequency of hassle and an intensity of hassle subscale, with higher scores reflecting greater hassle. in line with previous parenting stress and psychometric research, a 17-item form of the intensity of hassle subscale was used in the present study (Crnic et al., 2005; Taylor, 2019). A psychometric review of the subscales of the Parenting Daily Hassles Scale by Taylor (2019) found the 17-item form shows adequate structural validity, as well as less measurement error than the 20-item form. Scores above 70 indicate a parent is experiencing significant pressure in their parenting role, though formal cut-off scores are not provided (Crnic & Greenberg, 1990). Parenting researchers have found the intensity subscale to have excellent internal consistency ($\alpha = .93$; Hooper et al., 2015) and construct validity with samples of mothers and young children (Crnic & Greenberg, 1990; Hooper et al., 2015). For the current sample, internal consistency reliability estimates were excellent for the intensity of hassles subscale ($\alpha = .88$).

Data Analysis Plan

First, the data were screened for missing values and normality, and descriptive statistics and correlations for all indicator variables were generated. Next, the appropriateness of the variables for factor analysis was assessed using the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity. A split sample approach was used for the subsequent analyses to help control for family-wise error rate (Anderson & Magruder, 2017), such that 35% of the total sample ($n = 253$) was allocated through random assignment to an

exploratory sample (n = 94), and the remaining 65% was allocated through random assignment to a confirmation sample (n = 159).

Parallel analysis and exploratory factor analyses were conducted with the exploratory sample. Parallel analysis is a highly accurate initial factor selection method (Hayton et al., 2004), and the results were used to informed the number of factors to be extracted in the exploratory factor analysis. The exploratory factor analysis was conducted using an unweighted least square mean and variance (ULSMV) adjusted estimator because it performs better than other estimators with categorical indicators (Beauducel & Herzberg, 2006; Li, 2016) and smaller sample sizes (Forero et al., 2009). An oblique factor rotation (i.e., geomin) was applied to allow for correlation between items. Factor retention was determined by factor loading values of 0.4 or greater; presence of cross-loaded items, defined as loading on multiple factors at 0.32 or greater; and communality values less than .40 (Bandalos & Finney, 2018; Costello & Osborne, 2005). Items that did not meet the factor retention criteria were examined according to theory and loading strength and were either allocated to the appropriate factor or excluded in subsequent analyses (Bandalos & Finney, 2018). The internal consistency of factors was assessed using coefficient omega (i.e., McDonald's omega), which is less biased and has less stringent assumptions than other reliability indices (Bandalos & Finney, 2018; Dunn et al., 2014; Kalkbrenner, 2021). Model improvement was examined through modification indices.

Confirmatory factor analysis was conducted with the confirmation sample because exploratory factor analysis and confirmatory factor analysis are indicated when variables are analyzed together for the first time (Hancock & Mueller, 2010). The confirmatory factor analysis was carried out using an ULSMV estimator. The model was evaluated according to absolute model fit (i.e., chi-square test of model fit, and standardized root mean square residual [SRMR]),

model parsimony (i.e., root mean square error of approximation [RMSEA] and its confidence intervals), and comparative fit (i.e., comparative fit Index [CFI] and Tucker-Lewis Index [TLI]). The following guidelines for good model fit were used: a non-significant chi-square value, SRMR value less than 0.9, RMSEA value of 0.05 or less, and CFI and TLI values between 0.90 and 0.95 (Bandalos & Finney, 2018). Less emphasis was placed on the chi square test of model fit because it is sensitive to sample size (Brown, 2015). Pattern coefficients, modification indices, and coefficient omega were also examined. IBM SPSS Statistics Version 24 and 28 was used for preliminary analyses, sample splitting, and reliability analyses. All other analyses were conducted using Mplus Editor and Diagrammer Version 1.8.6 (1) (Muthén & Muthén, 1998-2017).

Results

Preliminary Analyses

One percent of values were missing for the Parenting Stress Index (i.e., 87 out of 9,108 data points) and 4% of values were missing for the Parenting Daily Hassles Scale (i.e., 175 out of 4,301 data points). Little's (1998) Missing Completely at Random (MCAR) test indicated the data were not missing systematically for the Parenting Stress Index [χ^2 (637) = 550.91, p = 0.994] or the Parenting Daily Hassles Scale [χ^2 (189) = 206.29, p = 0.185]. Participants with missing data did not significantly differ from participants with complete data regarding most variables (e.g., income, daily hassle parenting stress); however, parents with complete data (M = 78.48, SD = 21.55), as compared to parents with missing data (M = 72.22, SD = 22.67), reported significantly more parenting stress related to parent-child-relationship domains, t(251) = 1.99, p = .04. Pairwise deletion was used to address missing data, as is the default approach with a ULSMV estimator. While pairwise deletion has limitations (Marsh, 1998), researchers have

found pairwise deletion yields comparable results to multiple imputation when data are MCAR regardless of sample size or amount of missing data (Shi et al., 2020). Variable skewness ranged from -0.48 to 2.36 and kurtosis variable ranged from -1.36 to 5.49, collectively falling within the appropriate range for a normal distribution. The KMO Measure of Sampling Adequacy was 0.6 for the exploratory sample and 0.77 for the confirmation sample, surpassing the criterion value of 0.6 (Hutcheson and Sofroniou, 1999). Bartlett's Test of Sphericity was significant for the exploratory sample, χ^2 (1431) = 3324.17, $p < .001$, and the confirmation sample χ^2 (1431) = 4557.52, $p = .000$. Thus, data from both exploratory and confirmation samples were deemed appropriate for factoring.

Descriptive Statistics

The exploratory sample produced a mean total stress score of 75.73 (*SD* = 23.66) and a mean daily hassle intensity score of 40.29 (*SD* = 13.61), and the confirmation sample produced a mean total stress score of 77.55 (*SD* = 20.95) and a mean daily hassle intensity score of 42.91 (*SD* = 13.59), indicating the average stress score for parents across both samples was within the average stress range. Participants from the exploratory and confirmation sample did not significantly differ regarding total stress score, $t(251) = -0.63$, $p = .53$, or daily hassle intensity score, $t(243) = -1.71$, $p = .09$.

Parallel Analysis and Exploratory Factor Analysis

The results of the parallel analysis yielded a sample matrix with the following five eigenvalues: 17.29, 3.35. 2.90, 2.73 and 2.15. The corresponding random eigenvalues were 3.06, 2.81, 2.64, 2.50, and 2.37. Four eigenvalues in the sample matrix were larger than the random matrix; thus, a four-factor solution was retained. Results of the four-factor exploratory factor analysis using an ULSMV estimator and geomin rotation yielded a model in which all but one

item significantly loaded onto a factor. Specifically, the pattern matrix showed 14 items loaded onto factor 1 (loadings ranged from 0.25 to 0.75), 10 items loaded onto factor 2 (loading ranged from 0.31 to 0.84), 13 items loaded onto factor 3 (loading ranged from 0.40 to 0.88), and 15 items loaded onto factor 4 (loadings ranged from 0.28 to 0.68). Of these significant items, 12 items loaded below the 0.40 criteria and 15 items loaded onto multiple factors. Communality values for the significant items ranged from 0.09 to 0.86, with 13 items demonstrating communality values less than 0.40. Item 7 of the Parenting Daily Hassles Scale demonstrated non-significant and low loadings, which ranged from 0.04 to 0.21 across the four factors, and a communality value of 0.16. The factor structure coefficients ranged from 0.17 to 0.75 for factor 1, -0.20 to 0.91 for factor 2, 0.06 to 0.85 for factor 3, and 0.01 to 0.77 for factor 4. Low loading and cross loading items were retained due to theoretical alignment, fit with other items, and the need to be more cautious when analyzing items together for the first time (Bandalos & Finney, 2018). Item 7 of the Parenting Daily Hassles Scale was excluded, given both its low and non-significant loading as well as low communality value, and a second exploratory factor analysis was conducted.

The results of the second exploratory factor analysis were highly consistent with the results of the first exploratory factor analysis. Please see Table 1 for a summary of the exploratory factor analysis factor loadings, communalities, and correlations. The pattern matrix showed the same item loadings and approximate loading values as the first exploratory factor analysis (i.e., 14 items loaded onto factors 1, 10 items loaded onto factor 2, 13 items loaded onto factor 3, and 15 items loaded onto factor 4). Item 3 of the Parenting Daily Hassles Scale improved slightly to meet the 0.40 criteria; however, the remaining items of concern were consistent with the first exploratory factor analysis (i.e., 11 items loaded below the .40 criteria,

15 items loaded onto multiple factors, 12 items had communality values less than .40). Factor structure coefficients were similar to the first exploratory factor analysis. For each item of concern, the loading strength and factor fit was examined, and items were assigned to the most appropriate factor. After all items were reviewed and assigned, factor reliability was assessed, and high coefficient omega values were found for all factors.

The four factors were interpreted and labelled based on factor-variable relations and extant parenting stress literature. Items that loaded highly on factor 1 reflected individual and role-related challenges, such as feelings of depression (Gelfand et al., 1992; Tan & Rey, 2005) or confinement due to parenting responsibilities (Belsky, 1986). Therefore, factor 1 was labelled Parental Distress. Factor 2 included items relating to the emotional strain during parent-child interactions (Crnic et al., 2005; Lee et al., 2017) and to parents' feelings of disappointment by or rejection from their child; thus, factor 2 was labelled Strained Parent-Child Interactions. Factor 3 described parents' difficulty with managing children's problem behaviours and non-compliance (Dumas et al., 1991; Miragoli et al., 2018), and was labelled Challenging Child Behaviours. Items that loaded highly on factor 4 were related to everyday tasks and frustrations associated with parenting (Crnic et al., 2005), and as such, factor 4 was labelled Parenting Hassles.

Confirmatory Factor Analyses

Please see Table 2 for a summary of the confirmatory factor analysis model fit indices. The results of the confirmatory factor analysis with the confirmation sample indicated a four-factor model of parenting stress fit the data adequately. Although the chi square statistic was significant, it is known to be a highly sensitive to sample size (Brown, 2015). Moreover, the SRMR value was approaching the guideline cutoff value of 0.08. RMSEA and its confidence intervals suggested the model fit the data well. Both the CFI and TLI values fell just outside of

the acceptable model fit range. The standardized parameter estimates ranged from 0.42 to 0.88. Ten modifications were suggested and, after review, item 1 of the Parenting Stress Index ("I often have the feeling that I cannot handle things very well") was moved from factor 3 (Challenging Child Behaviours) to factor 1 (Parental Distress) given that it aligned well with role-related distress and would improve model fit. After this change, a second CRA was run. The second model showed similar fit indices for chi-square, SRMR, RMSEA, and TLI; however, the CFI value improved slightly. The standardized parameter coefficients for model two ranged from 0.42 to 0.89. Nine modifications were suggested. Upon examination, item 24 of the Parenting Stress Index ("Sometimes my child does things that bother me just to be mean"), which originally loaded highly onto factor 1 (Parental Distress), was deleted given poor conceptual fit with factor 1 and suggested loadings onto factors 2 and 3. Results of the third confirmatory factor analysis yielded further improvements with RMSEA, CFI and TLI. Standardized parameter coefficients for model three ranged from 0.44 to 0.90. Six modifications were suggested and, after review, Parenting Stress Index item 16 ("When I do things for my child, I get the feeling that my efforts are not appreciated very much") was also deleted from factor 1 (Parental Distress) due to a lack of fit, which was also evidenced statistically due to lower loading value and suggested cross-loading onto factors 2 and 3. The fourth model showed additional enhancements to model fit with improvements with RMSEA and CFI. Standardized parameter coefficients ranged from 0.46 to 0.90. A summary of the standardized pattern coefficients for the final model may be found in Table 3. Factor correlations for model four ranged from 0.54 to 0.77, indicating appropriate discriminant validity between factors (Brown, 2015). Five modifications were suggested, and no additional changes were made based on

theoretical and statistical grounds. Reliability analyses for the final model indicated high reliability for all factors.

In summary, the original Parenting Stress Index consisted of 36 items and the original Parenting Daily Hassles Scale consisted of 17 items. Based on model fit indices and theoretical fit, multiple items from both the Parenting Stress Index and Parenting Daily Hassles Scale were moved from their original factor to different factors and several items across the two questionnaires were excluded from the final model (items 16 and 24 from the Parenting Stress Index, item 7 from the Parenting Daily Hassles Scale). The final model was comprised of 50 items (34 items from the Parenting Stress Index, 16 from the Parenting Daily Hassles Scale). Please see Table 4 for descriptive statistics (i.e., mean, *SD*) and reliability values for the final model.

Discussion

The aim of the current study was to simultaneously examine parent-child-relationship and daily hassle sources of parenting stress to identify how these sources of stress collectively reflect the parenting stress construct. Results of parallel analysis, exploratory factor analysis, and confirmatory factor analysis showed a four-factor model of parenting stress was indicated and demonstrated adequate fit with the data. Consistent with hypotheses, the parent-child-relationship and parenting daily hassle sources of parenting stress proposed by Parent-Child-Relationship and Daily Hassles theories, respectively, were represented in the four-factor model. These outcomes provide preliminary support for a broader parenting stress construct that includes parent-child-relationship and daily hassle sources of parenting stress, though some considerations regarding model fit are warranted. Thus, including sources of parenting stress that

span problematic functioning and normative perspectives is indicated. A more detailed discussion of the study findings and implications are presented below.

In line with the proposed hypothesis, the results of the parallel analysis and exploratory factor analysis demonstrated a four-factor model of parenting stress was indicated. The factors identified were Parental Distress, Strained Parent-Child Interactions, Challenging Child Behaviours, and Parenting Hassles. The results of the confirmatory factor analysis demonstrated the parenting stress model was parsimonious and captured important dimensions related to the latent parenting stress construct. Collectively, these outcomes provide evidence of a broader parenting stress construct representing both parent-child-relationship and daily hassle sources of parenting stress. Consequently, these results suggest parenting stress may be understood as a broader construct than previously thought because it includes both problematic functioning within the parent-child-relationship domains *and* normative, everyday parenting daily hassles. A broader parenting stress construct extends the parenting stress literature by illustrating parenting stress encompasses Parent-Child-Relationship and Daily Hassles theories of parenting stress simultaneously (Abidin, 1990, 2012; Crnic & Greenberg, 1990). Theoretically, these findings also imply Parent-Child-Relationship and Daily Hassles theories may be complementary because of their shared theoretical underpinnings and ability to contribute distinct, sources of parenting stress that are not addressed by the other theory.

The broader parenting stress model is consistent with existing parenting stress literature which indicates challenges associated with parents, child, parent-child relationship, and parenting daily hassles are unique and important sources of parenting stress. First, the Parental Distress factor reflects feelings of loneliness and sadness, loss of interest in previously enjoyed activities, as well as feeling confined by the parenting role. This result supports the body of

research linking parent's mental health challenges and parenting stress (Daundasekara et al., 2021; Farmer & Lee, 2011; Huizink et al., 2017). When considering the host of symptoms associated with depression, including low mood (e.g., sadness), low energy, and loss of interest in previously enjoyable activities, it follows that these symptoms influence parents' behaviours, such as parenting engagement (Medina et al., 2021). Second, the Strained Parent-Child Interactions factor measures emotional strain in parent-child interactions, as well as parents' feelings of disappointment or rejection. Research indicates the critical role of parenting stress in undermining the quality of parent-child interactions through mechanisms such as reducing parental sensitivity (Pereira et al., 2012). Emerging research lends additional support to this finding, such that Azhari et al. (2019) pinpointed the negative effects of parenting stress to regions of the brain that are implicated in understanding another's mental states and social cognition in mother-child dyads. Third, the Challenging Child Behaviours factor assesses the difficulties associated with managing problematic behaviours and non-compliance. This factor supports studies illustrating that more challenging child behaviours are associated with parenting stress among clinical groups of children (for review, see Barroso et al., 2016). Given that challenging child behaviours likely require more parental resources (e.g., time, attention), it follows these behaviours may tax parents' emotional and cognitive resources, thereby reflecting a key source of parenting stress. Finally, the Parenting Hassles factor measured everyday parenting hassles, such as scheduling frustrations and caregiving tasks. This result supports the existing literature that not only shows parenting stress occurs because of the intensity and daily occurrence of various parenting hassles, but also are associated with less supportive parenting behaviours such as harsher discipline and less parental warmth (Crnic & Greenberg, 1990; Crnic & Low, 2002; Gülseven et al., 2018; Yakub et al., 2021).

Given the evidence supporting the four-factor model of parenting stress, researchers are encouraged to use a parenting stress measure that captures both the problematic functioning and normative aspects of parenting stress, such as the 50-item merged questionnaire evaluated in the present study. The four-factor model of parenting stress may benefit parenting researchers as it provides a more comprehensive measure of parenting stress that may provide broader and deeper insights into the parenting stress construct and related factors. Moreover, it may offer a more expedient and streamlined format for parenting researchers to capture multiple parenting stress dimensions rather than individually administering the Parenting Stress Index or Parenting Daily Hassles Scale.

The broader parenting stress construct may also benefit clinicians and parents because it offers a more comprehensive understanding of how parenting stress arises. Many parenting interventions position parenting stress as a modifiable variable and thus an important target for interventions aimed at supporting parenting and improving parent and child related outcomes (Barroso et al., 2018; Diener & Swedin, 2020). In this regard, Castel et al. (2016) showed an early psychological intervention aimed at reducing parenting stress by focusing on parent mental health and providing parents with emotional support was successful in ameliorating parenting stress and, in turn, promoting both parental mental health and infant's developmental outcomes. The findings of the current study may enable clinicians and parents to concurrently assess multiple sources of parenting stress and afford greater insight into the different aspects within a family system that contribute to parenting stress. For example, clinicians and parents may find it helpful to consider whether parenting stress arises from repeated efforts to gain child compliance or from scheduling related challenges. This knowledge may then be used to inform strategies and focus efforts that target the specific source of parenting stress and help mitigate parenting stress.

Notably, the findings of the current study also showed that parenting stress dimensions may not be fully captured or explicated by the proposed model (Bandalos & Finney, 2018). For example, research by Östberg and Hagekull (2000) identified other factors, such as social support and stressful life events, are predictive of parenting stress. Similarly, a review by Holly et al. (2019) identified factors including stressful life events or parental satisfaction as indicators of parenting stress. However, other parenting researchers have sought to separate stressful life events from parenting stress, noting that parenting stress should arise from the parenting role and not factors external to the parenting role (Crnic & Low, 2002). Thus, while the findings of this study provide evidence of the multidimensional nature of the parenting stress construct, they also illustrate the need to continue investigating potential sources of parenting stress to fully understand this construct. That is, identifying other parenting stress factors and to what extent they reflect dimensions of the parenting stress construct may enhance knowledge of parenting stress sources and help develop a more comprehensive and parsimonious model of parenting stress. Parenting researchers may therefore want to integrate additional variables in future models of parenting stress to continue explicating and refining this construct.

Limitations

One limitation of this study involves the loading of items onto the different parenting stress factors. Specifically, several items demonstrated low loadings, cross-loadings, and low communalities, which may be a result of smaller sample size or the multidimensional nature of the parenting stress construct (Li et al., 2020). While items are not expected to perfectly measure underlying constructs and current results justified the sample size, future research could benefit from examining this construct with larger samples or explore other factor structures and examine the multidimensionality of the construct (e.g., hierarchical or bifactor models). This study is also

limited by its exploratory nature and therefore the factor structure cannot be generalized to other samples of parents (Bandalos & Finney, 2018). As well, data were collected during the COVID-19 pandemic, at which time there were national closures of schools, daycare, and places of employment. As a result, many parents were required to work from home full time or lost their employment, while simultaneously engaging in caregiving and educational tasks full-time. Research on the effects of COVID-19 indicate some families were more stressed during this time (Gadermann et al., 2021), and it is feasible that this may have influenced reports of parenting stress. Finally, while a portion of participants endorsed low income and education levels and identified with ethnic minority groups in Canada, participants were primarily female, Caucasian, middle to upper class, and highly educated. It would be beneficial to examine the broader parenting stress construct in other samples of parents, such as those with children of other ages, less education, and different family structures, to assess the consistency of the factor structure found in the present study.

Conclusion

The results of the parallel analysis, exploratory factor analysis, and confirmatory factor analysis yielded a four-factor model of parenting stress that was consistent with the sources of parenting stress identified by Parent-Child-Relationship (Abidin, 1990, 2012) and Daily Hassles (Crnic & Greenberg, 1990) theories. The factors were subsequently labelled: Parental Distress, Strained Parent-Child Interactions, Challenging Child Behaviours, and Parenting Hassles. This finding offers initial evidence of a broader parenting stress construct that includes both parent-child-relationship and daily hassle sources of parenting stress and, in turn, encompasses both problematic functioning and normative perspectives of parenting stress. A broader parenting stress construct may help support a more comprehensive examination and understanding of

sources of parenting stress and its impact on families, as well as advance a more integrated parenting stress literature. Future research may wish to explore other related factors, such as parental satisfaction, to continue building knowledge of parenting stress sources and continue enhancing the parenting stress construct.

Table 1.1

Factor Loadings, Communalities, and Correlations for Exploratory Factor Analysis

Item		Factor				Communality
		1	2	3	4	
PSI 11	Not interested	**0.752***	0.039	-0.068	-0.224	0.491
PSI 9	Alone and without friends	**0.740***	-0.092	-0.087	0.044	0.487
PSI 5	Unable things like	**0.671***	-0.209	0.104	0.298*	0.668
PSI 12	Don't enjoy	**0.623***	0.116	0.205	-0.024	0.603
PSI 6	Unhappy purchase	**0.548***	0.021	0.158	-0.073	0.378
PSI 4	Unable new things	**0.515***	-0.157	0.029	0.246*	0.374
PSI 10	Expect not enjoy	**0.462***	0.153	0.144	-0.087	0.339
PSI 3	Trapped responsibilities	**0.454***	-0.157	0.169	0.258*	0.416
PSI 24	Child mean	**0.421***	0.262*	0.238*	0.090	0.569
PSI 7	Things life bother me	**0.420***	0.033	-0.076	0.091	0.193
PSI 2	Sacrifice for child needs	**0.358***	-0.478*	0.400*	0.063	0.416
PSI 16	Efforts not appreciated	**0.342***	0.229*	0.303*	0.037	0.474
PSI 22	How good	**0.303***	0.163	0.111	0.103	0.255
PSI 8	Problems with spouse	**0.251***	0.164	0.161	0.151	0.279
PSI 19	Doesn't smile	-0.01	**0.839***	0.170	0.053	0.861
PSI 15	Smiles less	0.135	**0.800***	0.050	0.106	0.84
PSI 17	Child giggle or laugh	0.252	**0.703***	-0.031	0.129	0.741
PSI 14	Does not like	0.478*	**0.617***	-0.066	-0.109	0.698
PSI 26	Bad mood	-0.036	**0.607***	0.303*	0.102	0.635
PSI 13	Rarely does things	0.436*	**0.498***	0.064	-0.128	0.568
PSI 18	Learn as quickly	0.243	**0.457***	0.244	-0.087	0.484
PSI 20	Not able to do as much	0.191	**0.442***	0.185	0.158	0.518
PSI 23	Warmer feelings	0.514*	**0.418***	-0.187	0.030	0.494
PDH 19	Difficulties friends	0.130	**0.315***	0.059	0.152	0.237
PSI 29	Reacts strongly	-0.082	-0.022	**0.878***	0.032	0.726
PSI 32	Stop doing something	-0.048	-0.144	**0.814***	0.077	0.623
PSI 28	Child does things	0.138	0.022	**0.786***	-0.106	0.676
PSI 34	Child bother me	0.092	-0.008	**0.775***	-0.065	0.624
PSI 27	Moody easily upset	-0.028	0.463*	**0.599***	-0.102	0.679
PSI 30	Upset small things	0.082	0.138	**0.590***	0.078	0.534
PSI 36	Makes demands	0.051	0.428*	**0.560***	-0.018	0.692
PSI 1	Cannot handle	0.264*	-0.015	**0.553***	-0.075	0.451
PSI 25	Cry or fuss	0.002	0.428*	**0.497***	0.031	0.601
PSI 35	More of a problem	0.231	0.426*	**0.459***	0.071	0.799
PSI 31	Sleeping or eating schedule	0.152	0.116	**0.433***	0.200*	0.471
PSI 21	Used to new things	-0.041	0.346*	**0.398***	0.163	0.460

PDH 4	Without being nagged	0.004	0.141	**0.396***	0.475*	0.637
PDH 17	Getting kids ready	0.108	-0.009	0.134	**0.679***	0.621
PDH 13	Change plans	-0.021	-0.059	-0.020	**0.676***	0.420
PDH 11	Constant eye	0.151	0.095	0.113	**0.629***	0.626
PDH 1	Cleaning up	0.006	-0.111	0.382*	**0.622***	0.675
PDH 10	Underfoot	0.400*	0.055	0.013	**0.606***	0.736
PDH 20	Extra errands	-0.075	0.262*	-0.032	**0.595***	0.457
PDH 14	Changes of clothing	-0.074	0.322*	-0.064	**0.578***	0.470
PDH 18	Leaving kids	0.302	0.128	-0.117	**0.548***	0.505
PDH 5	Baby-sitters	0.223	-0.050	-0.067	**0.518***	0.341
PDH 2	Whined at	-0.021	0.019	0.493*	**0.500***	0.693
PDH 3	Mealtime	0.185	0.088	0.104	**0.400***	0.350
PSI 33	Things that bother me	0.086	0.103	0.291*	**0.390***	0.442
PDH 8	Entertain or play	0.078	-0.044	0.197	**0.365***	0.253
PDH 15	Privacy	-0.135	0.373*	0.172	**0.341***	0.385
PDH 6	Schedules interfere	0.132	-0.028	-0.106	**0.279***	0.091

Factor Correlations					
Factor 1: PD	1.000	-	-	-	-
Factor 2: SPCI	0.330*	1.000	-	-	-
Factor 3: CCB	0.428*	0.348*	1.000	-	-
Factor 4: PH	0.331*	0.286*	0.411*	1.000	-

Boldface denotes assignment to the corresponding component. PD = Parental Distress, SPCR = Strained Parent-Child Interactions, CCB = Challenging Child Behaviour, PH = Parenting Hassles.

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 1.2

Summary of Model Fit Indices for Confirmatory Factor Analyses

Model	X^2	*df*	SRMR	RMSEA	RMSEA 90% CI	CFI	TLI
Initial model	1773.97***	1268	.09	.05	.04 – .06	.88	.88
Moved PSI 1							
Model 2	1759.01***	1268	.09	.05	.04 – .06	.89	.88
Deleted PSI 24							
Model 3	1646.36***	1218	.09	.05	.04 – .05	.90	.90
Deleted PSI 16							
Final Model	1556.97***	1169	.09	.05	.04 – .05	.91	.90

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 1.3

Factor Descriptive Statistics and Reliability Coefficients for Final Model

Factor	Mean	SD	Number Items	Coefficient Omega
1	31.01	8.41	13	0.83
2	15.96	6.19	10	0.87
3	29.78	9.25	12	0.88
4	30.91	10.27	15	0.88

Table 1.4

Standardized Pattern Coefficients

Items	Estimate	SE	*p* value
Factor 1			
PSI 11	0.554	0.068	0.000
PSI 9	0.630	0.062	0.000
PSI 5	0.760	0.052	0.000
PSI 12	0.705	0.055	0.000
PSI 6	0.570	0.07	0.000
PSI 4	0.616	0.058	0.000
PSI 10	0.486	0.074	0.000
PSI 3	0.742	0.056	0.000
PSI 7	0.463	0.081	0.000
PSI 2	0.468	0.083	0.000
PSI 22	0.465	0.079	0.000
PSI 8	0.479	0.073	0.000
PSI 1	0.629	0.065	0.000
Factor 2			
PSI 19	0.784	0.047	0.000
PSI 15	0.815	0.046	0.000
PSI 17	0.879	0.039	0.000
PSI 14	0.754	0.061	0.000
PSI 26	0.881	0.051	0.000
PSI 13	0.739	0.054	0.000
PSI 18	0.570	0.069	0.000
PSI 20	0.776	0.058	0.000
PSI 23	0.760	0.054	0.000
PDH 19	0.576	0.064	0.000
Factor 3			
PSI 29	0.669	0.048	0.000
PSI 32	0.496	0.069	0.000
PSI 28	0.510	0.064	0.000
PSI 34	0.506	0.064	0.000
PSI 27	0.786	0.046	0.000
PSI 30	0.712	0.045	0.000
PSI 36	0.900	0.038	0.000
PSI 25	0.768	0.051	0.000
PSI 35	0.888	0.046	0.000
PSI 31	0.611	0.061	0.000
PSI 21	0.731	0.05	0.000
PDH 4	0.538	0.066	0.000
Factor 4			
PDH 17	0.547	0.065	0.000
PDH 13	0.566	0.063	0.000

PDH 11	0.753	0.057	0.000
PDH 1	0.555	0.066	0.000
PDH 10	0.740	0.049	0.000
PDH 20	0.755	0.049	0.000
PDH 14	0.801	0.06	0.000
PDH 18	0.763	0.056	0.000
PDH 5	0.557	0.071	0.000
PDH 2	0.583	0.06	0.000
PDH 3	0.556	0.066	0.000
PSI 33	0.723	0.052	0.000
PDH 8	0.669	0.053	0.000
PDH 15	0.663	0.056	0.000
PDH 6	0.518	0.065	0.000

References

Abidin, R. R. (1990). Introduction to the special issue: The stresses of parenting. *Journal of Clinical Child Psychology*, *19*(4), 298–301. https://doi.org/10.1207/s15374424jccp1904

Abidin, R. R. (2012). *Parenting stress index* (4th ed.). Psychological Assessment Resources, Inc.

Anderson, M., & Magruder, J. (June 2017). *Split-Sample Strategies for Avoiding False Discoveries.* The National Bureau of Economic Research. http://www.nber.org/papers/w23544%0Ahttp://www.nber.org/papers/w23544.pdf

Azhari, A., Leck, W. Q., Gabrieli, G., Bizzego, A., Rigo, P., Setoh, P., Bornstein, M. H., & Esposito, G. (2019). Parenting stress undermines mother-child brain-to-brain synchrony: A hyperscanning study. *Scientific Reports*, *9*(1), 1–9. https://doi.org/10.1038/s41598-019-47810-4

Bandalos, D. L., & Finney, S. J. (2018). Factor analysis: Exploratory and confirmatory. In G. R. Hancock, L. M. Stapleton, & R. O. Mueller (Eds.) *The Reviewer's Guide to Quantitative Methods in the Social Sciences* (2nd ed., pp. 98-122). Routledge.

Barroso, N. E., Hungerford, G. M., Garcia, D., Graziano, P. A., & Bagner, D. M. (2016). Psychometric properties of the parenting stress index-short form (PSI-SF) in a high-risk sample of mothers and their infants. *Psychological Assessment*, *28*(10), 1331–1335. https://doi.org/10.1037/pas0000257

Barroso, N. E., Mendez, L., Graziano, P. A., & Bagner, D. M. (2018). Parenting Stress through the lens of different clinical groups: A systematic review & meta-analysis. *Journal of Abnormal Child Psychology*, *46*(3), 449–461. https://doi.org/10.1007/s10802-017-0313-6

Beauducel, A., & Herzberg, P. Y. (2006). On the performance of maximum likelihood versus means and variance adjusted weighted least squares estimation in CFA. *Structural Equation*

Modeling, *13*(2), 186–203. https://doi.org/10.1207/s15328007sem1302_2

Belsky, J. (1986). Transition to parenthood. *Medical Aspects of Human Sexuality*, *20*(9), 56–59.

BeLue, R., Halgunseth, L. C., Abiero, B., & Bediako, P. (2015). Maternal health status and parenting stress in low-income, ethnic-minority mothers of children with conduct disorder problems: The role of daily parenting hassles. *Journal of Racial and Ethnic Health Disparities*, *2*(4), 501–509. https://doi.org/10.1007/s40615-015-0098-7

Biggs, A., Brough, P., & Drummond, S. (2017). Lazarus and Folkman's psychological stress and coping theory. In C.L. Cooper & J.C. Quick (Eds.), *The handbook of stress and health: A guide to research and practice* (pp. 351-364). Wiley Blackwell.

Brown, T. (2015). C*onfirmatory factor analysis for applied research*. (2nd ed.). The Guildford Press. https://doi.org/10.1198/tas.2008.s98

Camisasca, E., Miragoli, S., & Di Blasio, P. (2019). Children's triangulation during inter-parental conflict: Which role for maternal and paternal parenting stress? *Journal of Child and Family Studies*, *28*(6), 1623–1634. https://doi.org/10.1007/s10826-019-01380-1

Castel, S., Beunard, A., Creveuil, C., Blaizot, X., Proia, N., & Guillois, B. (2016). Effects of an intervention program on maternal and paternal parenting stress after preterm birth: A randomized trial. *Early Human Development*, *103*, 17–25. https://doi.org/10.1016/j.earlhumdev.2016.05.007

Cater, M., & Machtmes, K. (2008). Informed decision-making in exploratory factor analysis. *Journal of Youth Development*, *3*(3), 170–177. https://doi.org/10.5195/jyd.2008.296

Cho, B., Woods-Jaeger, B., & Borelli, J. L. (2021). Parenting stress moderates the relation between parental trauma exposure and child anxiety symptoms. *Child Psychiatry and Human Development*, *52*(6), 1050–1059. https://doi.org/10.1007/s10578-020-01087-1

Costello, A. B., & Osborne, J. W. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical Assessment, Research and Evaluation*, *10*(7). https://doi.org/10.7275/jyj1-4868

Cousino, M. K., & Hazen, R. A. (2013). Parenting stress among caregivers of children with chronic illness: A systematic review. *Journal of Pediatric Psychology*, *38*(8), 809–828. https://doi.org/10.1093/jpepsy/jst049

Crnic, K. A., & Booth, C. L. (1991). Mothers' and fathers' perceptions of daily hassles of parenting across early childhood. *Journal of Marriage and the Family*, *53*(4), 1042. https://doi.org/10.2307/353007

Crnic, K. A., Gaze, C., & Hoffman, C. (2005). Cumulative parenting stress across the preschool period: Relations to maternal parenting and child behaviour at age 5. *Infant and Child Development*, *14*, 117–132. https://doi.org/10.1002/icd

Crnic, K. A., & Greenberg, M. T. (1990). Minor parenting stresses with young children. *Child Development*, *61*(5), 1628–1637.

Crnic, K. A., & Low, C. (2002). Everyday stresses and parenting. In M. H. Bornstein (Ed.), *Handbook of Parenting: Volume 5 Practical Issues in Parenting* (2nd ed., pp. 243-267). Lawrence Erlbaum Associates. https://doi.org/10.1038/clpt.1994.88

Crnic, K., & Ross, E. (2017). Parenting stress and parental efficacy. In K. Deater-Deckard & R.K. Panneton (Eds.), *Parental stress and early child development* (pp. 263-284). Springer.

Daundasekara, S. S., Beauchamp, J. E. S., & Hernandez, D. C. (2021). Parenting stress mediates the longitudinal effect of maternal depression on child anxiety/depressive symptoms. *Journal of Affective Disorders*, *295*(May), 33–39. https://doi.org/10.1016/j.jad.2021.08.002

Deater-Deckard, K. (1998). Parenting stress and child adjustment: Some old hypotheses and new

questions. *Clinical Psychology: Science and Practice*, *5*(3), 314–332. https://doi.org/10.1111/j.1468-2850.1998.tb00152.x

Deater-Deckard, K. (2004). *Parenting stress*. Yale University Press.

Deater-Deckard, K., & Panneton, R. (2017). *Parental stress and early child development: Adaptive and maladaptive outcomes*. Springer International Publishing. https://doi.org/10.1007/978-3-319-55376-4

Diener, M. L., & Swedin, M. N. (2020). Parenting stress. In S. H. Hupp and J. D. Jewell (Eds.), *The Encyclopedia of Child and Adolescent Development* (pp. 1–11). John Wiley & Sons. https://doi.org/10.1002/9781119171492.wecad206

Dumas, J. E., Wolf, L. C., Fisman, S. N., & Culligan, A. (1991). Parenting stress, child behavior problems, and dysphoria in parents of children with autism, down syndrome, behavior disorders, and normal development. *Exceptionality*, *2*(2), 97–110. https://doi.org/10.1080/09362839109524770

Dunn, T. J., Baguley, T., & Brunsden, V. (2014). From alpha to omega: A practical solution to the pervasive problem of internal consistency estimation. *British Journal of Psychology*, *105*(3), 399–412. https://doi.org/10.1111/bjop.12046

Farmer, A. Y., & Lee, S. K. (2011). The effects of parenting stress, perceived mastery, and maternal depression on parent-child interaction. *Journal of Social Service Research*, *37*(5), 516–525. https://doi.org/10.1080/01488376.2011.607367

Field, A. (2009). *Discovering Statistics Using SPSS* (3rd Ed.). Sage Publications.

Forero, C. G., Maydeu-Olivares, A., & Gallardo-Pujol, D. (2009). Factor analysis with ordinal indicators: A monte carlo study comparing DWLS and ULS estimation. *Structural Equation Modeling: A Multidisciplinary Journal*, *16*(4), 625–641.

https://doi.org/10.1080/10705510903203573

Gadermann, A. C., Thomson, K. C., Richardson, C. G., Gagné, M., Mcauliffe, C., Hirani, S., & Jenkins, E. (2021). Examining the impacts of the COVID-19 pandemic on family mental health in Canada: Findings from a national cross-sectional study. *BMJ Open*, *11*(1), 1–11. https://doi.org/10.1136/bmjopen-2020-042871

Gelfand, D. M., Teti, D. M., & Radin Fox, C. E. (1992). Sources of parenting stress for depressed and nondepressed mothers of infants. *Journal of Clinical Child Psychology*, *21*(3), 262–272. https://doi.org/10.1207/s15374424jccp2103_8

Gerstein, E. D., Crnic, K. A., Blacher, J., & Baker, B. L. (2009). Resilience and the course of daily parenting stress in families of young children with intellectual disabilities. *Journal of Intellectual Disability Research*, *53*(12), 981–997. https://doi.org/10.1111/j.1365-2788.2009.01220.x

Gülseven, Z., Carlo, G., Streit, C., Kumru, A., Selçuk, B., & Sayıl, M. (2018). Longitudinal relations among parenting daily hassles, child rearing, and prosocial and aggressive behaviors in Turkish children. *Social Development*, *27*(1), 45–57. https://doi.org/10.1111/sode.12247

Gupta, V. B. (2007). Comparison of parenting stress in different developmental disabilities. *Journal of Developmental and Physical Disabilities*, *19*(4), 417–425. https://doi.org/10.1007/s10882-007-9060-x

Hancock, G. R., & Mueller, R. O. (Eds.). (2010). The *reviewer's guide to quantitative methods in the social sciences.* Routledge.

Hayes, S. A., & Watson, S. L. (2013). The impact of parenting stress: A meta-analysis of studies comparing the experience of parenting stress in parents of children with and without autism

spectrum disorder. *Journal of Autism and Developmental Disorders*, *43*(3), 629–642. https://doi.org/10.1007/s10803-012-1604-y

Hayton, J. C., Allen, D. G., & Scarpello, V. (2004). Factor retention decisions in exploratory factor analysis: A tutorial on parallel analysis. *Organizational Research Methods*, *7*(2), 191–205. https://doi.org/10.1177/1094428104263675

Hogarty, K. Y., Hines, C. V., Kromrey, J. D., Perron, J. M., & Mumford, A. K. R. (2005). The quality of factor solutions in exploratory factor analysis: The influence of sample size, communality, and overdetermination. *Educational and Psychological Measurement*, *65*(2), 202–226. https://doi.org/10.1177/0013164404267287

Holly, L. E., Fenley, A. R., Kritikos, T. K., Merson, R. A., Abidin, R. R., & Langer, D. A. (2019). Evidence-base update for parenting stress measures in clinical samples. *Journal of Clinical Child and Adolescent Psychology*, *48*(5), 685–705. https://doi.org/10.1080/15374416.2019.1639515

Hooper, E., Feng, X., Christian, L., & Slesnick, N. (2015). Emotion expression, emotionality, depressive symptoms, and stress: Maternal profiles related to child outcomes. *Journal of Abnormal Child Psychology*, *43*(7), 1319–1331. https://doi.org/10.1007/s10802-015-0019-6

Huizink, A. C., Menting, B., De Moor, M. H. M., Verhage, M. L., Kunseler, F. C., Schuengel, C., & Oosterman, M. (2017). From prenatal anxiety to parenting stress: A longitudinal study. *Archives of Women's Mental Health*, *20*(5), 663–672. https://doi.org/10.1007/s00737-017-0746-5

Hutcheson, G., & Sofroniou, N. (1999). The multivariate social scientist: Introductory statistics using generalized linear models. SAGE Publications.

Kalkbrenner, M. T. (2021). Alpha, Omega, and H Internal consistency reliability estimates:

Reviewing these options and when to use them. *Counseling Outcome Research and Evaluation*, 1–12. https://doi.org/10.1080/21501378.2021.1940118

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer publishing company.

Lee, T. H., Miernicki, M. E., & Telzer, E. H. (2017). Families that fire together smile together: Resting state connectome similarity and daily emotional synchrony in parent-child dyads. *NeuroImage*, *152*(October 2016), 31–37. https://doi.org/10.1016/j.neuroimage.2017.02.078

Li, C. H. (2016). Confirmatory factor analysis with ordinal data: Comparing robust maximum likelihood and diagonally weighted least squares. *Behavior Research Methods*, *48*(3), 936–949. https://doi.org/10.3758/s13428-015-0619-7

Li, Y., Wen, Z., Hau, K. T., Yuan, K. H., & Peng, Y. (2020). Effects of Cross-loadings on determining the number of factors to retain. *Structural Equation Modeling*, *27*(6), 841–863. https://doi.org/10.1080/10705511.2020.1745075

Lin, X., Zhang, Y., Chi, P., Ding, W., Heath, M. A., Fang, X., & Xu, S. (2017). The mutual effect of marital quality and parenting stress on child and parent depressive symptoms in families of children with oppositional defiant disorder. *Frontiers in Psychology*, *8*(OCT), 1–11. https://doi.org/10.3389/fpsyg.2017.01810

MacCallum, R. C., Widaman, K. F., Zhang, S., & Hong, S. (1999). Sample size in factor analysis. *Psychological Methods*, *4*(1), 84–99. https://doi.org/10.1037/1082-989X.4.1.84

Mackler, J. S., Kelleher, R. T., Shanahan, L., Calkins, S. D., & Keane, S. P. (2015). Parenting stress, parental reactions, and externalizing behavior from ages 4 to 10. *Journal of Marriage and Family*, *77*(2), 388–406. https://doi.org/10.1111/jomf.12163.Parenting

Mak, M. C. K., Yin, L., Li, M., Cheung, R. Y. hin, & Oon, P. T. (2020). The relation between

parenting stress and child behavior problems: Negative parenting styles as mediator. *Journal of Child and Family Studies*, *29*(11), 2993–3003. https://doi.org/10.1007/s10826-020-01785-3

Marsh, H. W. (1998). Pairwise deletion for missing data in structural equation models: Nonpositive definite matrices, parameter estimates, goodness of fit, and adjusted sample sizes. *Structural Equation Modeling*, *5*(1), 22–36. https://doi.org/10.1080/10705519809540087

Mazur, E. (2006). Biased appraisals of parenting daily hassles among mothers of young children: Predictors of parenting adjustment. *Cognitive Therapy and Research*, *30*(2), 161–175. https://doi.org/10.1007/s10608-006-9031-z

Medina, N. Y., Edwards, R. C., Zhang, Y., & Hans, S. L. (2022). A longitudinal investigation of young mothers' prenatal attachment, depressive symptoms, and early parenting behaviour. *Journal of Reproductive and Infant Psychology*, *40*(2), 196-211.

Miragoli, S., Balzarotti, S., Camisasca, E., & Di Blasio, P. (2018). Parents' perception of child behavior, parenting stress, and child abuse potential: Individual and partner influences. *Child Abuse and Neglect*, *84*(August), 146–156. https://doi.org/10.1016/j.chiabu.2018.07.034

Muthén, L.K. and Muthén, B.O. (1998-2017). *Mplus user's guide (8th ed,).* Muthén & Muthén

Östberg, M., & Hagekull, B. (2000). A structural modeling approach to the understanding of parenting stress. *Journal of Clinical Child Psychology*, *29*(4), 615–625. https://doi.org/10.1207/S15374424JCCP2904

Pereira, J., Vickers, K., Atkinson, L., Gonzalez, A., Wekerle, C., & Levitan, R. (2012). Parenting stress mediates between maternal maltreatment history and maternal sensitivity in a

community sample. *Child Abuse and Neglect*, *36*(5), 433–437. https://doi.org/10.1016/j.chiabu.2012.01.006

Platt, R., Williams, S. R., & Ginsburg, G. S. (2016). Stressful life events and child anxiety: Examining parent and child mediators. *Child Psychiatry and Human Development*, *47*(1), 23–34. https://doi.org/10.1007/s10578-015-0540-4

Ponnet, K., Mortelmans, D., Wouters, E., Van Leeuwen, K., Bastaits, K., & Pasteels, I. (2013). Parenting stress and marital relationship as determinants of mothers' and fathers' parenting. *Personal Relationships*, *20*(2), 259–276. https://doi.org/10.1111/j.1475-6811.2012.01404.x

Shi, D., Lee, T., Fairchild, A. J., & Maydeu-Olivares, A. (2020). Fitting ordinal factor analysis models with missing data: A comparison between pairwise deletion and multiple imputation. *Educational and Psychological Measurement*, *80*(1), 41–66. https://doi.org/10.1177/0013164419845039

Tan, S., & Rey, J. (2005). Depression in the young, parental depression and parenting stress. *Child Psychiatry*, *13*(1), 76–79. https://doi.org/10.12987/yale/9780300103939.001.0001

Taylor, J. (2019). Structural validity of the Parenting Daily Hassles Intensity Scale. *Stress and Health*, *35*(2), 176–186. https://doi.org/10.1002/smi.2852

Walerius, D. M., Fogleman, N. D., & Rosen, P. J. (2016). The role of ADHD and negative emotional lability in predicting changes in parenting daily hassles. *Journal of Child and Family Studies*, *25*(7), 2279–2291. https://doi.org/10.1007/s10826-016-0381-1

Weijers, D., van Steensel, F. J. A., & Bögels, S. M. (2018). Associations between psychopathology in mothers, fathers and their children: A structural modeling approach. *Journal of Child and Family Studies*, *27*(6), 1992–2003. https://doi.org/10.1007/s10826-018-1024-5

Wheaton, B., Young, M., Montazer, S., & Stuart-Lahman, K. (2013). Social stress in the twenty-first century. In C. S. Aneshensel, J. C. Phelan, & A. Bierman (Eds.). *Handbook of the sociology of mental health* (pp. 299–323). Springer. https://doi.org/10.1016/s0277-9536(00)00354-3

Woodman, A. C., Mawdsley, H. P., & Hauser-Cram, P. (2015). Parenting stress and child behavior problems within families of children with developmental disabilities: Transactional relations across 15 years. *Research in Developmental Disabilities*, *36*, 264–276. https://doi.org/10.1016/j.ridd.2014.10.011

Yakub, N. A., Kadir, N. B. A., & Hoesni, S. M. (2021). The relationship between daily hassles and social support on depressive symptoms among mothers of young kids. *The Open Psychology Journal*, *14*(1), 294–299. https://doi.org/10.2174/1874350102114010294

Zhuo, R., & Li, G. (2021). Association between second-time mother's prenatal depression and firstborn's behaviour problems: The mediation role of parenting daily hassles. *International Journal of Environmental Research and Public Health*, *18*(23), 12794. https://doi.org/10.3390/ijerph182312794

Chapter 4:

Study 2. Exploring the Associations Between Parenting Stress and Parents' Emotion Socialization

Abstract

Parental emotion socialization is a central part of parenting that teaches children how to manage their emotions. Little research exists on the parent-related factors that influence parental emotion socialization. For example, parenting stress is associated with less supportive parenting behaviours, yet there is limited research examining the relationship between parenting stress and emotion socialization. Such research is needed to better understand the effects of parenting stress on emotion socialization, as well as to support parents' success in their parenting role. This study examined the associations between parenting stress, supportive emotion socialization behaviours, and unsupportive emotion socialization behaviours. A sample of 250 mothers and 23 fathers of children between the ages of 7-11 years of age completed an online survey measuring parenting stress and two types of emotion socialization behaviours. A two-step structural equation modeling approach was used to identify the associations between parenting stress and both supportive and unsupportive emotion socialization. The results provided support for a parenting stress and emotion socialization measurement model and showed that parenting stress was significantly associated with both supportive and unsupportive emotion socialization behaviours, though the parenting stress and emotion socialization model accounted for significant variance in only unsupportive emotion socialization behaviours. These results suggest parents' supportive emotion socialization may be motivated by different factors than unsupportive emotion socialization. More research is needed to improve the fit of the parenting stress and emotion socialization measurement model, as well as to understand the relationship between parenting stress and supportive emotion socialization behaviours.

Keywords: parental emotion socialization, parenting stress, structural equation modeling

Introduction

Parental emotion socialization behaviours are the behaviours parents engage in that teach children how to manage and express their emotions (Eisenberg et al., 1998). emotion socialization behaviours include parental responses to children's emotions, parental emotional expressions and emotion-related discussions (Eisenberg et al., 1998). Parents are the primary agents who socialize children's emotions across early and middle childhood though both parents and children contribute to socialization interactions (Morelen & Suveg, 2012). A large body of research demonstrates the lasting impacts, both adaptive and maladaptive, of supportive and unsupportive emotion socialization behaviours on children's development, respectively. However, less attention is paid to the factors associated with parental emotion socialization behaviours. Identifying factors associated with parental emotion socialization behaviours helps elucidate the relationships between emotion socialization behaviours and other aspects of the family's life and environment that may, in turn, help foster a greater understanding of how to promote supportive and unsupportive parental emotion socialization behaviours. While emerging evidence shows parenting stress is related to less supportive parental emotion socialization behaviours (Nelson et al., 2010), this relationship has not been fully explicated and would benefit from further investigation. The aim of the current study is to examine the associations between parenting stress and parental emotion socialization behaviours.

Emotion Socialization

The socialization of emotion is defined as "behaviors enacted by socializers that (a) influence a child's learning (or lack thereof) regarding the experience, expression, and regulation of emotion and emotion-related behavior, and (b) are expected to affect the child's emotional experience, learning of content, and emotion-related behavior in a manner consistent with

socializers' beliefs, values, and goals about emotion and its relation to individual functioning and adaption in society" (Eisenberg et al., 1998, p.317). In 1998, Eisenberg proposed an emotion socialization framework that described three types of parental emotion socialization behaviours: (a) expression of emotions, (b) responses to children's emotions, and (d) discussion of emotions. First, parental emotional expressions refer to the "facial, body, vocal, and verbal expressions" that parents demonstrate (Halberstadt et al., 1999, p. 110). Parental emotional expressions teach children both how and when positive and negative emotions are expressed (Denham et al., 2007). Parenting research shows positive and negative emotional expressivity are related, with greater positive expressivity associated with greater negative expressivity (McCord & Raval, 2016; Meyer et al., 2014). Through this modeling mechanism, children observe and process the emotional behaviours of their parents and follow this when expressing their own emotional behaviours (McDowell et al., 2002; Grusec & Hastings, 2015). Second, parental responses to children's emotions strongly shape children's expression and modulation of emotions. Parental responses to children's emotions may be categorized as supportive or unsupportive, where supportive reactions are more frequently associated with children's adjustment, and unsupportive reactions are associated with children's maladaptive social functioning (Klimes-Dougan & Zeman, 2007). Supportive reactions communicate to children whether their emotions are encouraged through parents' acceptance and acknowledgement of the emotion, while unsupportive reactions discourage children's expression of emotion by dismissing or minimizing the emotion (Denham et al., 2007). Lastly, within the context of a positive parent-child relationship, the discussion of emotions nurtures children's healthy emotional development. In particular, parental communication about emotions scaffolds children's awareness, understanding, and regulation of emotions by promoting children's attention to salient emotional

cues and helping children make sense of an interaction (Denham et al., 2007). These discussions also convey to children parents' support for discussing emotions and may encourage children's emotional awareness and regulation (Eisenberg et al., 1998; Roger et al., 2012).

Since Eisenberg et al. (1998) proposed the emotion socialization framework, a large body of research has categorized supportive emotion socialization behaviours as the expression of positive emotions, supportive responses to children's emotions, and the discussion of emotions. In particular, supportive emotion socialization behaviours include encouraging children to talk about and express emotions, offering comfort, and helping children resolve problems or conflicts (for a review, see Lozada & Brown, 2020). Supportive emotion socialization behaviours are associated with many adaptive developmental outcomes in children, such as social competence (Baker et al., 2011); effective emotion regulation skills (Blair et al., 2014); and fewer internalizing problems (Hooper et al., 2018). In contrast, unsupportive emotion socialization behaviours are categorized as the expression of negative emotions, unsupportive responses to children's emotions, and avoiding emotion-related discussions. These unsupportive emotion socialization behaviours involve the unregulated expression of anger or hostility (Snyder et al., 2003) and avoiding or punishing emotion-related discussions or expressions (Lozada & Brown, 2020). Unsupportive emotion socialization behaviours are related to increased problematic behaviours (i.e., internalizing, externalizing) and poorer emotional competence in children (Havighurst & Kehoe, 2017).

Identifying factors (e.g., family environment, parent characteristics) that are related to supportive and unsupportive emotion socialization behaviours is important due to the central role of parental emotion socialization in children's socio-emotional development. Research on parental psychopathology and emotion regulation have highlighted how parent-related factors

influence parental emotion socialization behaviours. For example, researchers found more severe depressive symptoms in mothers predicted lower levels of maternal positive affect and greater ignoring responses of children's positive affect (Morrow et al., 2021). Knowledge of parent factors related to supportive and unsupportive emotion socialization behaviours have also helped inform parenting interventions by generating information that can enhance parenting practices and improve children's behaviour problems and internalizing difficulties (Kehoe et al., 2020; Wilson et al., 2012). Thus, identifying factors related to supportive and unsupportive parental emotion socialization behaviours not only sheds light on a pervasive and important parenting process, but also supports parents in their parenting practices and, in turn, promotes children's healthy development.

Parenting Stress

In 1984, Lazarus and Folkman proposed the transactional theory of stress and coping, whereby stress results from appraisals of stimuli in one's environment as challenging or harmful and as exceeding one's resources. Parenting is described as one of the most rewarding roles in adulthood; however, it is also complex and, at times, carried out in demanding situations with challenging children and limited resources (Abidin, 1990). Not surprisingly, all parents experience stress at some points in their parenting. Parenting stress is a unique type of stress that results specifically from the parenting role (Deater-Deckard & Panneton, 2017). Specifically, it is defined as "a set of processes that lead to aversive psychological and physiological reactions arising from attempts to adapt to the demands of parenthood" (Deater-Deckard, 2004, p. 6).

Parenting stress is believed to influence parenting behaviours because stress is experienced as negative feelings that can subsequently overwhelm and compromise parents' ability to engage in supportive parenting practices (Havighurst & Kehoe, 2017). Specifically,

parents' typical interactions with their child might be disrupted when stressed, such that they may react more harshly and less consistently, resulting in "decrements or deteriorations in many aspects of the quality and effectiveness of parenting behaviour" (Deater-Deckard, 2004, p. 8). These disruptions may gradually result in changes to parenting and the parent-child relationship that, over time, result in less successful parenting (Crnic & Low, 2002).

There is a large body of research illustrating the relationship between parenting stress and myriad maladaptive outcomes for parents and children. For example, parenting stress is associated with mental health challenges in parents, such as depression (Huizink et al., 2017; Yakub et al., 2021); mental health difficulties in children, including anxiety (Cho et al., 2021; Platt et al., 2016), depression (Lin et al., 2017), and externalizing behaviours (Mackler et al., 2015; Mak et al., 2020; Weijers et al., 2018); conflict in mother-child dyads (Camisasca et al., 2019; Crnic et al., 2005), as well as less supportive parenting styles (Mak et al., 2020; Ponnet et al., 2013). Thus, this evidence shows parenting stress accompanies a host of difficulties within the family system and underscores the relationship between parenting stress and parent-child factors merit examination.

Parenting Stress and Parental Emotion Socialization

A small body of research exists on parenting stress and emotion socialization, providing initial evidence of relationship between parenting stress and parental emotion socialization behaviours. For example, Nelson et al. (2010) studied the association between marital dissatisfaction, home chaos, parental depression, and job role dissatisfaction – which they called 'family stress' – on parents' responses to children's emotions and found family stress was related to both supportive and unsupportive parental reactions to children's emotions. Likewise, Hooper et al. (2015) examined mothers' parenting stress, positive and negative emotional expressivity,

and depressive symptoms. The authors found a distinct ‘stressed’ maternal profile, comprised of low-to-average positive emotional expressions, frequent and intense parenting stress, and elevated depressive symptoms, that significantly predicted children’s problem behaviours. Mackler and colleagues (2015) examined parental unsupportive emotion socialization behaviours (i.e., unsupportive responses to children’s negative emotions) and its relations with parenting stress and children’s externalizing behaviour. The authors found a bidirectional relationship, in that unsupportive emotion socialization behaviours both influenced and were influenced by parenting stress and children’s externalizing behaviour.

Collectively, the aforementioned research provides evidence that parenting stress is associated with both supportive and unsupportive parental emotion socialization behaviours. This research is also consistent with transactional stress theory and lends support to the emotion socialization framework proposed by Eisenberg et al. (1998), such that when parents perceive aspects of their parenting environment (e.g., parenting tasks, children’s externalizing behaviours) as challenging and exceeding their coping resources, then parents’ experience high levels of parenting stress which is associated with unsupportive emotion socialization behaviours, indicating parenting stress is an important parent characteristic to consider in Eisenberg’s framework. However, there is a strong need to further examine parenting stress as a parent characteristic and influencer of parents’ emotion socialization behaviours. First, measures of parenting stress have been combined with other measures, such as parental psychopathology or marital dissatisfaction (Hooper et al., 2015; Nelson et al., 2010). Combining these variables may conflate or mask the specific effects of parenting stress on parental emotion socialization. Second, the study by Mackler (2015) focused specifically on parents’ unsupportive responses to children’s negative emotions. Broadening this research to include supportive responses to

children's negative emotions, as well as other emotion socialization behaviours (e.g., emotional expressivity), would afford greater insights into the relationship between these importance constructs. Finally, there is more research on the relationship between emotion socialization behaviours and children's outcomes than on the relationship between parent-related factors and emotion socialization behaviours (Castro et al., 2017; Chang et al., 2003; Tan et al., 2020). Of the researchers who examined parent-related factors, many focused on parental emotion regulation and psychopathology as influencers of parental emotion socialization behaviours (Hajal & Paley, 2020). Evaluating the influence of other parent-related factors, such as parenting stress, would enhance knowledge of two inherent and pervasive components of parenting, both of which are known to have lasting impacts on children's development.

Present Study

The current study is guided by the theory of emotion socialization proposed by Eisenberg and colleagues (Eisenberg et al., 1998), as well as two theories of parenting stress. The first theory is called Parent-Child-Relationship theory of parenting stress and was proposed by Abidin (1990) who hypothesized that parenting stress originates from dysfunction within the parent-child system. The second parenting stress theory is called Daily Hassles theory and was proposed by Crnic and Greenberg (1990) who argued that parenting stress stems from the cumulation of everyday parenting hassles. Emotion socialization theory informed the conceptualization of the current study by providing a theoretical framework of parents' emotion socialization behaviours and of the factors that influence such behaviours. The present study connects and builds upon extant emotion socialization theory to explore parenting stress, and specifically the components of parenting stress identified by both parenting stress theories, as antecedents and influencers of parents' emotion socialization behaviours. Thus, the theoretical concepts identified, and models

specified in the current study were collectively guided by emotion socialization and parenting stress theories.

The purpose of the present study was to examine the associations between parenting stress and supportive and unsupportive parental emotion socialization behaviours. Consistent with prior research on parental emotion socialization with Western cultures (McCord & Raval, 2016; Trommsdorff et al., 2012), the current study conceptualized supportive parental emotion socialization behaviours as positive emotional expressions and supportive responses to children's negative emotions (e.g., comforting, problem solving), while unsupportive parental emotion socialization behaviours included negative emotional expressions and unsupportive responses to children's negative emotions (e.g., dismissing, minimizing). Given that emotion socialization behaviours are observable behaviours, they served as indicators of supportive and unsupportive emotion socialization, both latent constructs. Parenting stress was conceptualized as originating from challenges with the parenting role (e.g. child behaviour, parent-child relationship) (Abidin, 2012) and from the daily hassles that are associated with the parenting role, such as scheduling hassles and cleaning up messes (Crnic & Low, 2002). These parenting stressors served as indicators of a latent parenting stress construct. Thus, structural equation modeling was employed to examine the relationships between parenting stress and parental emotion socialization behaviours. In line with statistical recommendations, a two-step modeling approach was conducted, such that the first step specified a measurement model of parenting stress and parental supportive and unsupportive emotion socialization, and the second step examined the structural relations between parenting stress and parental supportive and unsupportive emotion socialization (Kline, 2016). It was hypothesized that the latent parenting stress, supportive emotion socialization, and unsupportive emotion socialization variables would be measured well

by the observed parenting stress and emotion socialization behaviours variables included in the present study. Based on previous literature, it was anticipated that parenting stress would be negatively associated with supportive parental emotion socialization behaviours and positively associated with unsupportive emotion socialization behaviours.

Method

Participants and Procedure

The present study used a correlational, cross sectional research design. Parents were eligible to participate if they had a child between the ages of 7-11 years and only one parent per family could participate. The researchers recruited parents across Canada through online advertisement and email invitation via social media websites (e.g., Facebook), databases of parents who are interested in participating in research, and word-of-mouth. An electronic data capture tool, called REDCap, which is hosted and supported by the Women and Children's Health Research Institute at the University of Alberta Data, was used to collect data (Harris, Taylor, Thielke, Payne, Gonzalez & Conde, 2009). The questionnaires took approximately 25 minutes to complete. Parents were invited to participate in a draw for an e-gift card to a bookstore as compensation for their participation.

A total of 279 parents comprising 256 mothers and 23 fathers participated in this study. Following preliminary analyses, which are described in more detail below, the final sample for this study consisted of 250 mothers and 23 fathers, for a total of 273 parents. Parents' ages ranged from 24 and 54 years (M = 39.43 SD = 5.29). The majority of parents identified as Caucasian, were highly educated, and reported no previous mental or physical health conditions. Most parents were employed and reported a median family income of $100,001 - $125,000 Canadian. The majority of parents were married with two children. Fifty-five percent of parents'

children were male and the mean child age was 8 years (M = 8.64, SD = 1.33). Please see Table 1 for more detailed sociodemographic information.

Measures

Parenting stress

Domain-Specific Parenting Stress. The *Parenting Stress Index – Fourth Edition Short Form* (Parenting Stress Index; Abidin, 2012) is a standardized and norm-referenced questionnaire. The Parenting Stress Index includes 33 items that are rated on a 5-point scale from 1 (*strongly disagree*) to 5 (*strongly agree*) and three items that use a different response option. These items comprise three, 12-item subscales: (a) parent distress (e.g., parents' sense of restriction, conflict, social support, and competence in their role as a parent); (b) difficult child (i.e., parents' perceptions of how easy or difficult it is to care for their child); and (c) parent-child dysfunctional interaction (i.e., parents' satisfaction in their interactions with their child). Raw scores for each subscale range from 12 to 60 and sum to create a total stress score, ranging from 36 to 180. Total stress scores between 54 - 109 are considered average, 110 - 113 are elevated, and above 114 are clinically significant. Researchers have found appropriate internal consistency estimates for each subscale and total stress score (α = .75 - .91) and test-retest reliability estimates for the subscales and total stress score (α = .61 - .82) of the Parenting Stress Index in samples of mothers and infants (Barroso et al., 2016). In the current sample, coefficient alpha was 0.93 indicating excellent internal consistency.

Daily Hassles Parenting Stress. *The Parenting Daily Hassles Scale* (Crnic & Greenberg, 1990) is a self-report questionnaire of everyday hassles associated with parenting. The Parenting Daily Hassles Scale contains 20 items describing hassles that parents may experience. For each event, parents are asked to rate how often they experience a given hassle, ranging from 1 (*rarely*)

to 5 (*constantly*), and the intensity of the hassle, ranging from 1 (*low*) to 5 (*high*). Items are summed and comprise a frequency of hassle subscale and an intensity of hassle subscale, with higher scores reflecting greater hassle. In line with parenting stress and psychometric research, a 17-item form the intensity of hassle subscale was used (Crnic et al., 2005; Taylor, 2019). Scores above 70 indicate a parent is experiencing significant pressure in their parenting role, though formal cut-off scores are not provided (Crnic & Greenberg, 1990). Parenting researchers have found the intensity subscale to have strong internal consistency ($\alpha = .93$; Hooper et al., 2015) and construct validity with samples of mothers and young children (Crnic & Greenberg, 1990; Hooper et al., 2015). Coefficient alpha was 0.88 in the current sample which reflects excellent internal consistency.

The present study used a combination of items from the Parenting Stress Index (34 items) and the Parenting Daily Hassles Scale (16 items) to capture a broader measure of parenting stress that encompasses both domain and daily hassles sources of parenting stress (see paper 1). Together, these items comprise the following four subscales: (a) parental distress, (b) challenging child behaviours, (c) strained parent-child interactions, and (d) parenting hassles. Coefficient alphas in the current sample was 0.83, 0.87, 0.89, and 0.88 for each subscale, respectively, demonstrating excellent internal consistency.

Emotion Socialization

Parents' Responses to Children's Emotions. The *Coping with Children's Negative Emotions Scale* is a self-report questionnaire that contains 72 questions pertaining to 12 common situations in which children display negative emotions (CCNES; Fabes et al., 2002). Parents are asked to rate using a Likert scale, ranging from 1 (*very unlikely*) to 7 (*very likely*), how likely they are to respond to children's negative emotions with six different responses: (a) distress (i.e.,

parents are distressed by child's negative emotions); (b) punitive (i.e., parents punish child's negative emotion); (c) expressive encouragement (i.e., parents accept child's emotions); (d) emotion-focused (i.e., parents comfort child); (e) problem-focused (i.e., parents help resolve problem); and (f) minimizing (i.e., parents dismiss problem or emotions of child). Scores for response type are summed to create six response subscales. Higher scores reflect greater use of response type to children's negative emotions. The six reaction subscales are typically grouped to create 'supportive' and 'unsupportive' emotion socialization categories (e.g., Baker et al., 2011; Hurrell et al., 2015; Yan et al., 2016). Unsupportive emotion socialization includes the distress, punitive, and minimizing reactions and supportive emotion socialization includes expressive encouragement, emotion-focused, and problem-focused reactions. The CCNES was found to have acceptable internal consistency reliability with a sample of mothers and fathers of young children (α = 0.69 - 0.85; Fabes et al., 2002). Fabes et al. (2002) also found significant correlations between scores on the CCNES across two time points, separated by several months (r = 0.62 - 0.83), indicating appropriate test-retest reliability. Similar results have been reported within the parental emotion socialization literature (Baker et al., 2011; Castro et al., 2017). In the current sample, the respective internal consistency values for the distress, punitive, minimizing, problem focused, expressive encouragement, and emotion-focused reaction subscales were as follows: 0.75, 0.83, 0.87, 0.79, 0.92, and 0.84.

Parents' Emotional Expressivity. *The Self-Expressiveness in the Family Questionnaire* is a 40 item, self-report questionnaire designed to measure parents' positive and negative emotional expressivity (SEFQ; Halberstadt et al., 1995). For each item, parents indicate their frequency of expressions using a Likert scale that ranges from 1 (*never express those feelings*) to 9 (*express those feelings very frequently*). Items on the SEFQ comprise two subscales: (a)

positive expressions (e.g., giving compliments, apologizing, showing thanks); and (b) negative expressions (e.g., criticizing, expressing contempt). Higher scores indicate more frequent emotional expressivity. The SEFQ showed strong evidence of internal consistency for both the positive expressions subscale ($\alpha = 0.91$) and negative expressions subscale ($\alpha = 0.89$), internal reliability at two different time points separated by a period of eight months ($r = 0.64 - 0.82$), and convergent and discriminant validity with related constructs (e.g., marital satisfaction, loneliness) in a sample of parents with children in kindergarten and elementary school (Halberstadt et al., 1995). Other parenting researchers have reported strong evidence of reliability with mothers of young children (Eisenberg et al., 2003; Meyer et al., 2014). In the current sample, coefficient alpha for the positive and negative expressions subscales was excellent ($\alpha = 0.91$ and 0.87, respectively).

Data Analysis Plan

Preliminary analyses included missing data, descriptive statistics, and bivariate correlations among parenting stress and parental emotion socialization behaviours, all of which were carried out using SPSS 28. Structural equation modeling was performed using Mplus Editor and Diagrammer Version 1.8.6 (1) (Muthén & Muthén, 1998-2017) to examine the measurement model and structural model. The observed variables used to measure parenting stress in the measurement model included the following subscales: parental distress, challenging child behaviours, strained parent-child interactions, and parenting hassles. The observed variables used to measure parental supportive emotion socialization included the following subscales: expressive encouragement reactions, emotion-focused reactions, problem-focused reactions, and positive expressions. The observed variables used to measure unsupportive emotion socialization included the following subscales: distress reactions, punitive reactions, minimizing reactions,

and negative expressions. In the structural model, the exogenous variable was parenting stress and the endogenous variables were supportive and unsupportive parental emotion socialization behaviours. Maximum likelihood estimation with robust standard errors was used because it addresses missing data and performs well when non-normal data are present (Muthén & Muthén, 1998-2017). To evaluate the models, global model fit criteria were used, including chi-square, RMSEA, SRMR, CFI and TLI. Modification indices and standardized residuals were also used to examine model fit. Fit indices were interpreted according to the following guidelines: a significant Chi-Square indicated poor model fit; an RMSEA value of less than 0.05 suggested acceptable model fit, while values between 0.05 and 0.08 indicated adequate model fit (Browne & Cudeck, 1992 in Du & Kim 2021); a SRMR value less than .08 indicated good model fit; CFI and TLI values greater than 0.90 suggested acceptable model fit (Hu & Bentler, 1999). Effect sizes for structural relations between latent variables were estimated by r^2 and were interpreted using Cohen's (1992) guidelines where r^2= .10 is a small effect, r^2= .30 is a medium effect, and r^2= .50 is a large effect.

Results

Preliminary Analyses

The percent of participants with missing data across parenting stress and emotion socialization variables ranged from 0% to 19%. Six significant multivariate outliers were found; data from these participants were excluded from future analyses. Means, standard deviations, and bivariate correlations between the final parenting stress and emotion socialization indicator variables are reported in Table 2.

Measurement Model

The initial measurement model did not appear to adequately fit the data [χ^2 (51) = 208.28, p = 0.000; RMSEA = 0.11 (0.09, 0.12); SRMR = .082; CFI = .83, TLI = .78], which suggested the need for model specification. Based on inspection of standardized residuals (4.01) and modification indices (26.30), it was determined that allowing the residuals of positive and negative expressivity to correlate would be the most effective change to improve model fit. This change aligns with extant research in which positive and negative expressivity were allowed to covary (Brown et al., 2015), as well as findings that parents who scored highly on positive expressivity also scored highly on negative expressivity (Wong et al., 2009). The respecified model showed improved model fit but overall remained inadequate based on fit indices [χ^2 (50) = 176.66, p = 0.000; RMSEA = 0.09 (0.08, 0.11); SRMR = .079; CFI = .86, TLI = .82]. Standardized residuals (2.73 - 4.62) and modification indices (22.59) indicated the emotion focused subscale covaried with the negative expressivity, punitive, and minimizing subscales, as well as loaded onto the unsupportive emotion socialization latent factor, respectively. This recommendation is inconsistent with previous studies suggesting the emotion focused subscale is associated with supportive parental emotion socialization behaviours (Altan-Aytun et al., 2012; Castro et al., 2017; Gentzler et al., 2005). Given the conflicting statistical and theoretical evidence, the emotion focused subscale was removed from current analyses. The respecified model showed improved fit but remained inadequate based on fit indices [χ^2 (40) = 122.21, p = 0.000; RMSEA = 0.08 (0.06, 0.11); SRMR = .067; CFI = 0.90, TLI = 0.87]. Standardized residuals (2.97 – 4.76) and modification indices (22.52) suggested that the negative expressivity subscale loaded onto the parenting stress latent factor. Research on negative expressivity and parenting stress is limited, with some evidence showing there are some conceptual overlaps (Baker et al., 2000) and distinctions between these constructs (De Clercq et al., 2021). There was

a lack of evidence to justify moving the negative expressivity subscale to be an indicator of parenting stress; instead, negative expressivity was allowed to covary with parenting stress to account for a relationship between these variables. The respecified model showed adequate fit based on fit indices [χ^2 (39) = 96.86, p = 0.000; RMSEA = 0.07 (0.05, 0.90); SRMR = .058; CFI = 0.93, TLI = 0.91]. The final measurement model is presented in Figure 1.

Structural Model

The results of the structural model are presented in Figure 2. The global fit statistics for the structural model showed adequate fit [χ^2 (39) = 99.23, p = 0.000; RMSEA = 0.07 (0.05, 0.90); CFI = 0.93, TLI = 0.90]. Two direct paths were estimated in the structural model and both paths were statistically significant. There was a significant negative pathway from parenting stress to supportive parental emotion socialization behaviours (β = -0.279, p = .004); however, the model did not explain a significant amount of the variance in parental supportive parental emotion socialization behaviours (R^2 = 0.078, p = .155). There was a significant positive pathway from parenting stress to unsupportive parental emotion socialization behaviours (β = 0.550, p = .000), which showed a medium effect size, such that the model explained about 30% of the variance in unsupportive parental emotion socialization behaviours (R^2 = 0.303, p = .001).

Discussion

The purpose of this study was to examine the associations between parenting stress and supportive and unsupportive parental emotion socialization behaviours. A two-step structural equation modeling approach was conducted whereby a measurement model for parenting stress and parental supportive and unsupportive emotion socialization was specified and then the relations between parenting stress and parental supportive and unsupportive emotion socialization were examined. The results demonstrated parenting stress was negatively associated

with supportive emotion socialization and positively associated with unsupportive emotion socialization. The overall model did not account for significant variance in parental supportive emotion socialization; however, it accounted for 30% of the variance in parental unsupportive emotion socialization. These results show parenting stress is related to parents' emotion socialization and explains a significant amount of parents' unsupportive emotion socialization behaviours but not supportive emotion socialization behaviours. Moreover, they also suggest parents' supportive emotion socialization is motivated by different factors than unsupportive emotion socialization. These results are discussed in more detail below.

A significant negative relationship was found between parenting stress and supportive emotion socialization, while a significant positive relationship was found between parenting stress and unsupportive emotion socialization. These findings indicate that greater parenting stress was associated with fewer supportive emotion socialization behaviours and more unsupportive emotion socialization behaviours, and are consistent with the proposed hypotheses. In relation to the parenting literature, these outcomes lend support to Deater-Deckard's (2004) argument that parenting stress threatens the quality and effectiveness of parenting behaviour. They also align with extent research in which parenting stress is associated with maladaptive parent and child outcomes (Cho et al., 2021; Huizink et al., 2017; Mak et al., 2020). The findings of this study also serve to extend the parenting literature by providing evidence of the association between parenting stress and supportive and unsupportive emotion socialization. Notably, the relationship between parenting stress and unsupportive emotion socialization was approximately twice as strong as the relationship between parenting stress and supportive emotion socialization. This result illustrates that increases in parenting stress are more strongly associated with increases in unsupportive emotion socialization behaviours than reduced supportive emotion

socialization behaviours. Knowledge of the associations between parenting stress and emotion socialization may help parents better understand parenting stress and its relations to parenting, which can encourage efforts to reduce stress and highlight the parenting-related benefits associated with lower parenting stress.

The findings of this study also showed the parenting stress model specified explained approximately 30% of the variance in unsupportive emotion socialization; however, it did not explain significant variance in parental supportive emotion socialization. These results suggest supportive and unsupportive emotion socialization may be explained by different factors such that unsupportive emotion socialization appears to be partially explained by parenting stress while supportive emotion socialization may be more influenced by other factors that were not specified in the current model. The finding that parenting stress helps explain parents' unsupportive emotion socialization behaviours is consistent with the body of research linking parenting stress with less effective parenting strategies (for review, see Diener & Swedin, 2020). Specifically, given that parenting stress is experienced as negative feelings, it follows that heightened parenting stress may adversely affect parents. For example, Havighurst and Kehoe (2017) noted when parents are faced with parenting stresses or other challenging parenting situations (e.g., fatigue), it is more challenging for parents to regulate their emotions and this may, in turn, increase the likelihood that parenting responses are more reactive and harsher. The finding that the parenting stress model did not explain significant variance in parents' supportive emotion socialization behaviours indicates that supportive emotion socialization may be influenced by factors other than parenting stress. It may be the case that supportive emotion socialization is explained by factors related to parental knowledge and beliefs. For example, clinical research on parenting programs highlighted knowledge of children's emotional

development is associated with supportive parental emotion socialization behaviours (England-Mason & Gonzalez, 2020). Likewise, emotion focused parenting research found parental beliefs about emotion and whether they value emotions plays an important role in parental emotion socialization behaviours (Gottman et al., 1996; Katz et al., 2012). Thus, supportive and unsupportive emotion socialization appear to be explained by different factors, and it is recommended that future research continue to expand the model to identify factors that may be more highly associated with and better explain supportive emotion socialization.

The outcomes of this study have several implications for clinicians who work with parents and for clinical research informing parenting interventions. Specifically, knowledge of the unique associations between parenting stress and supportive and unsupportive emotion socialization may inform areas of treatment focus for clinicians. Some parenting interventions aim to reduce parenting stress and promote more adaptive outcomes for parents and children; however, the effectiveness of parenting interventions to reduce parenting stress is unclear and inconsistent across the parenting stress literature (Burgdorf et al., 2019; Girabent-Farrés et al., 2021). Based on the current study results, clinicians who work with parents and researchers who develop and evaluate parenting interventions may want to consider implementing different parenting strategies depending on whether the aim is to reduce unsupportive emotion socialization behaviours or to enhance supportive emotion socialization behaviours. Parenting interventions that support parents with reducing unsupportive emotion socialization behaviours may find that parents benefit from parenting stress reduction strategies. Different strategies may be needed to enhance parents' supportive emotion socialization behaviours. For example, some parenting programs deliver psychoeducation and provide opportunities to practice supportive emotion socialization behaviours as the primary means to improve emotion socialization

(England-Mason & Gonzalez, 2020). Taken together, the results of the current study highlight the unique associations between parenting stress and emotion socialization and emphasize that supportive and unsupportive emotion socialization appear to be explained by different factors. This information affords greater insights into parenting stress and its relations with parenting, which may assist parents in less stressed and more supportive in their parenting role.

Limitations

While this study expanded the literature on parenting stress and emotion socialization, several limitations should be noted. Despite efforts to recruit participation from fathers, the study sample consisted primarily of Caucasian mothers who were well educated and had high incomes; this is a common challenge within the parenting literature and limits the conclusions drawn from the current study to parent populations with similar demographics. There is evidence that mothers and fathers socialize children in unique ways, whereby mothers generally spoke more, discussed the causes of emotions more, and used specific emotion words more than fathers (Fivush et al., 2000). Thus, it would be helpful to gain more insights on parenting stress and emotion socialization from fathers, as well as diverse ethnic and socioeconomic groups. Furthermore, parents participated in this study from April 2020 to February 2021 which coincided with the COVID-19 pandemic. Evidence by Russell and colleagues (2020) suggests parents experienced heightened levels of parenting stress due to significant disruptions to their everyday life (e.g., childcare, work). The impacts of the COVID-19 pandemic were not evaluated in the present study and thus it not known if or how parent reports of parenting stress and emotion socialization behaviours in the current study were influenced by this global pandemic.

As well, all variables in the present study were reported by parents. A drawback of relying on parental self-report measures is the potential for shared rater variance to influence the strength of

association between variables. Increased levels of stress may also bias parent perceptions of child problematic behaviour (Renk et al., 2007). However, several reasons justified the use of parental self-report measures in the current study. Parent self-reports allow for the unique perceptions of parents to be expressed. As well, drawing upon parental self-report are congruent with parenting stress theory, which underscores the importance of parents' appraisals of stress (Diener & Swedin, 2020).

Additionally, while several fit statistics indicated the measurement model satisfactorily captured the relationship between latent variables and observed variables (i.e., CFI, TLI, SRMR), others suggested the model did not provide a strong fit to the data (i.e., Chi-square, RMSEA). One explanation for these inconsistencies includes an inflated Chi-Square index. Specifically, after addressing multivariate outliers, the data in the current study were non-normal, which may positively or negatively bias the Chi-Square test statistic (Kline, 2016). It is also possible the inconsistencies stem from the measurement model not accounting for other important indicator variables needed to capture these latent constructs more strongly. For example, including other indicators, such as parental emotion-related discussions, may have enhanced the measurement model and, in turn, improved Chi-Square and RMSEA indices. Future research may wish to examine different or more indicators of parenting stress and emotion socialization as well as investigate these relations with larger samples of parents to determine whether these changes contribute to a stronger model fit.

Finally, as is the case with model testing, the proposed model provides only one possible explanation for the relationship in the observed data (Hancock & Mueller, 2010). It is likely that other pathways and directions between parenting stress and emotion socialization variables can

and likely do exist, especially given the transactional nature of parenting stress and parental emotion socialization behaviours.

Conclusions

In sum, this study examined associations between parenting stress and supportive and unsupportive emotion socialization. A two-step structural equation model approach was implemented whereby a measurement model was specified and the association between parenting stress and both supportive and unsupportive emotion socialization was examined. The results showed greater parenting stress was associated with fewer supportive emotion socialization behaviours and with more unsupportive emotion socialization behaviours. Although the parenting stress model did not significantly explain parents' supportive emotion socialization, it explained 30% of parents' unsupportive emotion socialization. These findings suggest parenting stress is related to parents' emotion socialization and explains a significant amount of parents' unsupportive emotion socialization behaviours but not supportive emotion socialization behaviours. The findings also suggest parents' supportive emotion socialization is motivated by different factors than unsupportive emotion socialization, which may provide useful information to parents and clinicians about the unique relations between parenting stress and parenting.

Table 2.1

Sociodemographic Characteristics of Sample

Variable	Mother		Father		Full Sample	
	n	%	*n*	%	*n*	%
Sample size	250	92.0	23	8.0	273	100
[a] Parental ethnicity						
Indigenous	12	4.8	1	4.3	13	4.8
African	3	1.2	0	0	3	1.1
Asian	19	7.6	9	39.1	28	10.3
Caucasian	207	82.8	11	47.8	218	79.9
Latino/Hispanic	9	3.6	2	8.7	11	4
Middle Eastern	4	1.6	0	0	4	1.5
Métis	2	0.8	0	0	2	0.7
Highest education level						
Middle school	1	0.4	0	0	1	0.4
High school	6	2.4	1	4.3	7	2.6
Some college/technical school	14	5.6	3	13	17	6.2
College/technical school diploma	35	14	1	4.3	36	13.2
Some university	26	10.4	2	8.7	28	10.3
University undergraduate degree	78	31.3	5	21.7	83	30.5
University graduate degree	89	35.7	11	47.8	100	36.8
[a] Employment						
Employed	121	48.4	15	65.2	136	49.8
Student	34	13.6	4	17.4	38	13.9
Not working	13	5.2	0	0	13	4.8
Self-employed	24	9.6	3	13	27	9.9
Stay-at-home caregiver	51	20.4	0	0	51	18.7
Other	6	2.4	0	0	6	2.2
Accessed parenting supports						
Marital status						
Single	-	-	-	-	17	6.3
Married	-	-	-	-	214	78.7
Separated	-	-	-	-	14	5.1
Common law	-	-	-	-	17	6.3
Divorced	-	-	-	-	10	3.7
Household income						
$25,000 or less	-	-	-	-	5	2.2
$25,001 - $50,000	-	-	-	-	18	8
$50,001 - $100,000	-	-	-	-	45	20.1

$100,001 - $125,000	-	-	-	-	35	15.6
$125,001- $150,000	-	-	-	-	22	9.8
$150,001 - $175,000	-	-	-	-	19	8.5
$175,001 - $200,000	-	-	-	-	18	8
Over $200,000	-	-	-	-	36	16.1
Prefer not to answer	-	-	-	-	26	11.6
Child gender identity						
Male	-	-	-	-	124	55.4
Female	-	-	-	-	98	43.8
Identifies other than male or female	-	-	-	-	2	0.9
	M	*SD*	*M*	*SD*	*M*	*SD*
Parental age	39.28	5.301	41.09	4.946	39.43	5.288
Child age	-	-	-	-	8.64	1.33

[a] Reflects categories that do not total 100% as parents may select multiple response options.

Table 2.2

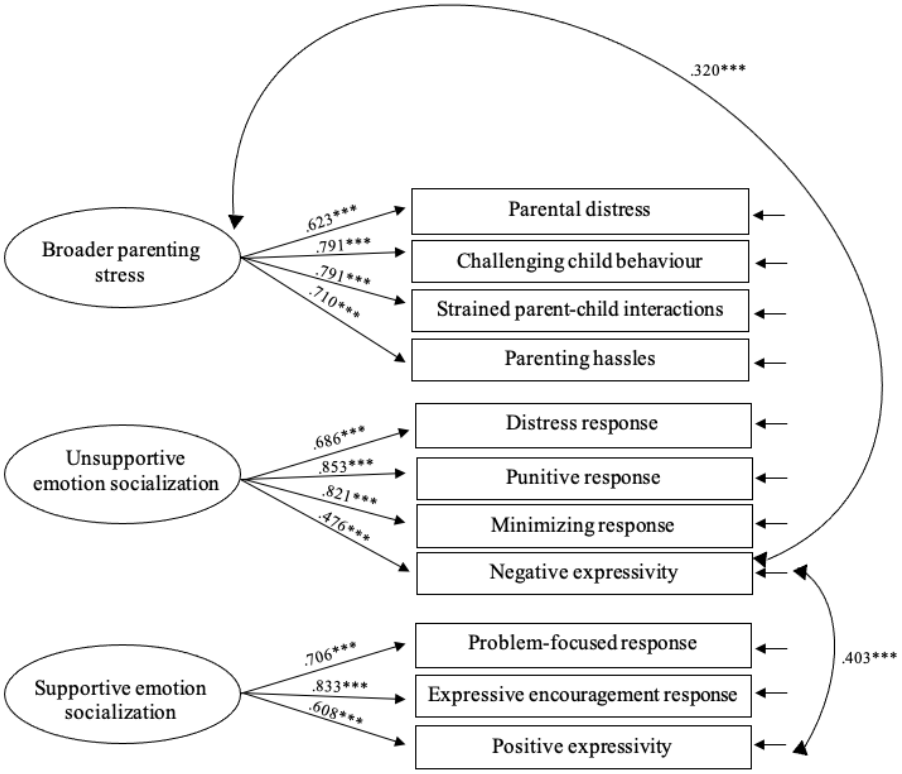
Descriptive Information and Correlations among Parenting Stress and Emotion Socialization Indicator Variables

Indicator Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Parental Distress	--											
2. Challenging Child Behaviour	.443**											
3. Strained Parent-Child Interactions	.520**	.617**	--									
4. Parenting Hassles	.533**	.455**	.554**	--								
5. Distress Response	.256**	.360**	.343**	.274**	--							
6. Punitive Response	.195**	.330**	.304**	.263**	.508**	--						
7. Minimizing Response	.214**	.259**	.161*	.228**	.460**	.659**	--					
8. Negative Expressivity	.315**	.337**	.402**	.373**	.359**	.332**	.278**	--				
9. Problem-Focused Response	-0.106	-.250**	-0.073	-.145*	-.179**	-.169**	-.136*	-0.045	--			
10. Expressive Encouragement Response	-0.115	-.211**	-0.11	-0.124	-.338**	-.392**	-.411**	-0.096	.590**	--		
11. Emotion-Focused Response	-0.006	-.206**	-0.054	-0.058	-.123*	-0.053	0.092	0.082	.536**	.292**	--	
12. Positive Expressivity	-.215**	-.288**	-.198**	-.166*	-.225**	-.328**	-.258**	.148*	.367**	.477**	.283**	--
Range	14-56	9-39	4-55	1-63	1.27-7	1-6	1-7	1.24-6.53	3.42-7	1-7	2.83-7	2.57-8.74
Mean	30.16	15.83	28.77	29.14	2.76	2.14	2.18	3.96	5.73	5.33	5.21	6.76
Standard Deviation	7.99	6.14	9.59	10.96	0.79	0.80	0.88	1.06	0.67	1.04	0.88	1.05

* $p < .05$, ** $p < .01$, *** $p < .001$

Figure 2.1

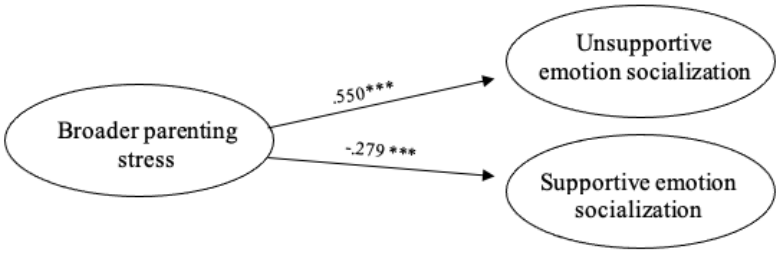
Measurement model with standardized coefficients



* $p < .05$, ** $p < .01$, *** $p < .001$

Figure 2.2

Structural model with standardized path coefficients



* $p < .05$, ** $p < .01$, *** $p < .001$

References

Abidin, R. R. (1990). Introduction to the special issue: The stresses of parenting. *Journal of Clinical Child Psychology*, *19*(4), 298–301. https://doi.org/10.1207/s15374424jccp1904

Abidin, R. R. (2012). *Parenting stress index* (4th ed.). Psychological Assessment Resources, Inc.

Altan-Aytun, Ö., Yagmurlu, B., & Yavuz, H. M. (2012). Turkish mothers' coping with children's negative emotions: A brief report. *Journal of Child and Family Studies*, *22*(3), 437–443. https://doi.org/10.1007/s10826-012-9597-x

Baker, B. L., Heller, T. L., & Henker, B. (2000). Expressed emotion, parenting stress, and adjustment in mothers of young children with behavior problems. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, *41*(7), 907–915. https://doi.org/10.1017/S0021963099006125

Baker, J. K., Fenning, R. M., & Crnic, K. A. (2011). Emotion socialization by mothers and fathers: Coherence among behaviors and associations with parent attitudes and children's social competence. *Social Development*, *20*(2), 412–430. https://doi.org/10.1111/j.1467-9507.2010.00585.x

Barroso, N. E., Hungerford, G. M., Garcia, D., Graziano, P. A., & Bagner, D. M. (2016). Psychometric properties of the Parenting Stress Index-Short Form (PSI-SF) in a high-risk sample of mothers and their infants. *Psychological Assessment*, *28*(10), 1331–1335. https://doi.org/10.1037/pas0000257

Blair, B. L., Perry, N. B., Brien, M. O., Calkins, S. D., Keane, S. P., & Shanahan, L. (2014). Friendship quality in middle childhood. *Developmental Psychology*, *50*(2), 566–576. https://doi.org/10.1037/a0033532.The

Brown, G. L., Craig, A. B., & Halberstadt, A. G. (2015). Parent gender differences in emotion

socialization behaviors vary by ethnicity and child gender. *Parenting*, *15*(3), 135–157. https://doi.org/10.1080/15295192.2015.1053312

Du, X., & Kim, Y. K. (2021). Direct and indirect associations between family residential mobility, parent functioning, and adolescent behavioral health. *Journal of Child and Family Studies*, *30*(12), 3055–3069. https://doi.org/10.1007/s10826-021-02129-5

Burgdorf, V., Szabó, M., & Abbott, M. J. (2019). The effect of mindfulness interventions for parents on parenting stress and youth psychological outcomes: A systematic review and meta-analysis. *Frontiers in Psychology*, *10*(June). https://doi.org/10.3389/fpsyg.2019.01336

Camisasca, E., Miragoli, S., & Di Blasio, P. (2019). Children's triangulation during inter-parental conflict: Which role for maternal and paternal parenting stress? *Journal of Child and Family Studies*, *28*(6), 1623–1634. https://doi.org/10.1007/s10826-019-01380-1

Castro, V. L., Halberstadt, A. G., & Garrett-Peters, P. T. (2017). Changing tides: Mothers' supportive emotion socialization relates negatively to third-grade children's social adjustment in school. *Social Development*, *27*(3), 510–525. https://doi.org/10.1111/sode.12251

Chang, L., Schwartz, D., Dodge, K. a, & McBride-Chang, C. (2003). Harsh parenting in relation to child emotion regulation and aggression. *Journal of Family Psychology*, *17*(4), 598–606. https://doi.org/10.1037/0893-3200.17.4.598

Cho, B., Woods-Jaeger, B., & Borelli, J. L. (2021). Parenting stress moderates the relation between parental trauma exposure and child anxiety symptoms. *Child Psychiatry and Human Development*, *52*(6), 1050–1059. https://doi.org/10.1007/s10578-020-01087-1

Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112, 155-159.

Crnic, K. A., Gaze, C., & Hoffman, C. (2005). Cumulative parenting stress across the preschool

period: Relations to maternal parenting and child behaviour at age 5. *Infant and Child Development*, *14*, 117–132. https://doi.org/10.1002/icd

Crnic, K. A., & Greenberg, M. T. (1990). Minor parenting stresses with young children. *Child Development*, *61*(5), 1628–1637.

Crnic, K. A., & Low, C. (2002). Everyday stresses and parenting. In M. H. Bornstein (Ed.), *Handbook of Parenting: Volume 5 Practical Issues in Parenting* (2nd ed, pp. 702–702). Lawrence Erlbaum Associates. https://doi.org/10.1038/clpt.1994.88

De Clercq, L. E., Prinzie, P., Warreyn, P., Soenens, B., Dieleman, L. M., & De Pauw, S. S. W. (2021). Expressed emotion in families of children with and without autism spectrum disorder, cerebral palsy and down syndrome: Relations with parenting stress and parenting behaviors. *Journal of Autism and Developmental Disorders*, *52*, 1789-1806. https://doi.org/10.1007/s10803-021-05075-9

Deater-Deckard, K. (2004). *Parenting stress*. Yale University Press.

Deater-Deckard, K., & Panneton, R. (2017). *Parental stress and early child development: Adaptive and maladaptive outcomes*. Springer International Publishing. https://doi.org/10.1007/978-3-319-55376-4

Denham, S. A., Bassett, H. H., & Wyatt, T. (2007). The Socialization of Emotional Competence. In J. E. Grusec & P. D. Hastings (Eds.), *Handbook of socialization: Theory and research* (pp. 614–637). The Guilford Press.

Diener, M. L., & Swedin, M. N. (2020). Parenting stress. In S. H. Hupp and J. D. Jewell (Eds.), *The Encyclopedia of Child and Adolescent Development* (pp. 1–11). John Wiley & Sons. https://doi.org/10.1002/9781119171492.wecad206

Eisenberg, N., Cumberland, A., & Spinrad, T. L. (1998). Parental socialization of emotion.

Psychological Inquiry, *9*(4), 241–273.

Eisenberg, N., Valiente, C., Morris, A. S., Fabes, R. A., Cumberland, A., Reiser, M., Gershoff, E. T., Shepard, S. A., & Losoya, S. (2003). Longitudinal relations among parental emotional expressivity, children's regulation, and quality of socioemotional functioning. *Developmental Psychology*, *39*(1), 3–19. https://doi.org/10.1037/0012-1649.39.1.3

England-Mason, G., & Gonzalez, A. (2020). Intervening to shape children's emotion regulation: A review of emotion socialization parenting programs for young children. *Emotion*, *20*(1), 98–104. https://doi.org/10.1037/emo0000638

Fabes, R. A., Poulin, R. E., Eisenberg, N., & Madden-Derdich, D. A. (2002). The Coping with Children's Negative Emotions Scale (CNNES): Psychometric properties and relations with children's emotional competence. *Marriage & Family Review*, *34*(3–4), 285–310. https://doi.org/10.1300/J002v34n03

Fivush, R., Brotman, M. A., Buckner, J. P., & Goodman, S. H. (2000). Gender differences in parent – child emotion narratives. *Sex Roles*, *42*, 233–253.

Gentzler, A. L., Contreras-Grau, J. M., Kerns, K. A., & Weimer, B. L. (2005). Parent-child emotional communication and children's coping in middle childhood. *Social Development*, *14*(4), 591–612. https://doi.org/10.1111/j.1467-9507.2005.00319.x

Girabent-Farrés, M., Jimenez-Gónzalez, A., Romero-Galisteo, R. P., Amor-Barbosa, M., & Bagur-Calafat, C. (2021). Effects of early intervention on parenting stress after preterm birth: A meta-analysis. *Child Care, Health and Development*, *47*(3), 400–410. https://doi.org/10.1111/cch.12853

Gottman, J. M., Katz, L. F., & Hooven, C. (1996). Parental meta-emotion philosophy and the emotional life of families: Theoretical models and preliminary data. *Journal of Family*

Psychology, *10*(3), 243–268. https://doi.org/10.1037//0893-3200.10.3.243

Grusec, J. E., & Hastings, P. D. (2015). *Handbook of socialization: Theory and research* (2nd Eds.). The Guilford Press. https://doi.org/10.1017/CBO9781107415324.004

Hajal, N. J., & Paley, B. (2020). Parental emotion and emotion regulation: A critical target of study for research and intervention to promote child emotion socialization. *Developmental Psychology*, *56*(3), 403–417. https://doi.org/10.1037/dev0000864

Halberstadt, A. G., Cassidy, J., Stifter, C. A., Parke, R. D., & Fox, N. A. (1995). Self-expressiveness within the family context: Psychometric support for a new measure. *Psychological Assessment*, *7*(1), 93–103. https://doi.org/10.1037/1040-3590.7.1.93

Halberstadt, A. G., Crisp, V. W., & Eaton, K. (1999). Family expressiveness: A retrospective and new directions for research. In P. Philippot, R. S. Feldman, & E. J. Coats (Eds.), *The social context of nonverbal behavior* (pp. 109–155). Cambridge University Press

Hancock, G. R., & Mueller, R. O. (Eds.). (2010). The *reviewer's guide to quantitative methods in the social sciences.* Routledge.

Havighurst S., Kehoe C. (2017) The role of parental emotion regulation in parent emotion socialization: Implications for intervention. In: Deater-Deckard K., Panneton R. (Eds.) *Parental stress and early child development*. Springer. https://doi-org.login.ezproxy.library.ualberta.ca/10.1007/978-3-319-55376-4_12

Hooper, E., Feng, X., Christian, L., & Slesnick, N. (2015). Emotion expression, emotionality, depressive symptoms, and stress: Maternal profiles related to child outcomes. *Journal of Abnormal Child Psychology*, *43*(7), 1319–1331. https://doi.org/10.1007/s10802-015-0019-6

Hooper, E. G., Wu, Q., Ku, S., Gerhardt, M., & Feng, X. (2018). Maternal emotion socialization and child outcomes among African Americans and European Americans. *Journal of Child*

and Family Studies, *27*(6), 1870–1880. https://doi.org/10.1007/s10826-018-1020-9

Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, *6*(1), 1–55. https://doi.org/10.1080/10705519909540118

Huizink, A. C., Menting, B., De Moor, M. H. M., Verhage, M. L., Kunseler, F. C., Schuengel, C., & Oosterman, M. (2017). From prenatal anxiety to parenting stress: A longitudinal study. *Archives of Women's Mental Health*, *20*(5), 663–672. https://doi.org/10.1007/s00737-017-0746-5

Hurrell, K. E., Hudson, J. L., & Schniering, C. A. (2015). Parental reactions to children's negative emotions: Relationships with emotion regulation in children with an anxiety disorder. *Journal of Anxiety Disorders*, *29*, 72-82. https://doi.org/10.1016/j.janxdis.2014.10.008

Katz, L. F., Maliken, A. C., & Stettler, N. M. (2012). Parental meta-emotion philosophy: A review of research and theoretical framework. *Child Development Perspectives*, *6*(4), 417–422. https://doi.org/10.1111/j.1750-8606.2012.00244.x

Kehoe, C. E., Havighurst, S. S., & Harley, A. E. (2020). Tuning in to Teens: Investigating moderators of program effects and mechanisms of change of an emotion focused group parenting program. *Developmental Psychology*, *56*(3), 623–637. https://doi.org/10.1037/dev0000875

Klimes-Dougan, B., & Zeman, J. (2007). Introduction to the special Issue of social development: Emotion socialization in childhood and adolescence. *Social Development*, *16*(2), 203–209. https://doi.org/10.1111/j.1467-9507.2007.00380.x

Kline, R. B. (2016). *Principles and practices of structural equation modeling* (4th ed.). The

Guilford Press.

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer publishing company.

Lin, X., Zhang, Y., Chi, P., Ding, W., Heath, M. A., Fang, X., & Xu, S. (2017). The mutual effect of marital quality and parenting stress on child and parent depressive symptoms in families of children with oppositional defiant disorder. *Frontiers in Psychology*, *8*, 1810. https://doi.org/10.3389/fpsyg.2017.01810

Lozada, F. T., & Brown, D. W. (2020). Emotion socialization in the family. *The Encyclopedia of Child and Adolescent Development*, 1–12. https://doi.org/10.1002/9781119171492.wecad183

Mackler, J. S., Kelleher, R. T., Shanahan, L., Calkins, S. D., & Keane, S. P. (2015). Parenting stress, parental reactions, and externalizing behavior from ages 4 to 10. *Journal of Marriage and Family*, *77*(2), 388–406. https://doi.org/10.1111/jomf.12163.Parenting

Mak, M. C. K., Yin, L., Li, M., Cheung, R. Y. hin, & Oon, P. T. (2020). The relation between parenting stress and child behavior problems: negative parenting styles as mediator. *Journal of Child and Family Studies*, *29*(11), 2993–3003. https://doi.org/10.1007/s10826-020-01785-3

McCord, B. L., & Raval, V. V. (2016). Asian Indian immigrant and white American maternal emotion socialization and child socio-emotional functioning. *Journal of Child and Family Studies*, *25*(2), 464–474. https://doi.org/10.1007/s10826-015-0227-2

McDowell, D. J., Kim, M., O'neil, R., & Parke, D. (2002). Children's emotional regulation and social competence in middle childhood. *Marriage & Family Review*, *34*(3–4), 345–364. https://doi.org/10.1300/J002v34n03

Meyer, S., Raikes, H. A., Virmani, E., Waters, S., & Thompson, R. A. (2014). Parent emotion representations and the socialization of emotion regulation in the family. *International Journal of Behavioral Development*, *38*(2), 164–173. https://doi.org/10.1177/0165025413519014

Morelen, D., & Suveg, C. (2012). A real-time analysis of parent-child emotion discussions: The interaction is reciprocal. *Journal of Family Psychology*, *26*(6), 998–1003. https://doi.org/10.1037/a0030148

Morrow, K. E., Gentzler, A. L., Wilson, T. K., Romm, K. F., & Root, A. E. (2021). Maternal depression and socialization of children's positive affect regulation. *Journal of Child and Family Studies*, *30*(10), 2413–2426. https://doi.org/10.1007/s10826-021-02045-8

Muthén, L.K. and Muthén, B.O. (1998-2017). *Mplus user's guide* (8th ed,). Muthén & Muthén

Nelson, J. A., Brien, M. O., & Keane, S. P. (2010). Family stress and parental response to children's negative emotions. *Journal of Family Psychology*, *23*(5), 671–679. https://doi.org/10.1037/a0015977.Family

Platt, R., Williams, S. R., & Ginsburg, G. S. (2016). Stressful life events and child anxiety: Examining parent and child mediators. *Child Psychiatry and Human Development*, *47*(1), 23–34. https://doi.org/10.1007/s10578-015-0540-4

Ponnet, K., Mortelmans, D., Wouters, E., Van Leeuwen, K., Bastaits, K., & Pasteels, I. (2013). Parenting stress and marital relationship as determinants of mothers' and fathers' parenting. *Personal Relationships*, *20*(2), 259–276. https://doi.org/10.1111/j.1475-6811.2012.01404.x

Renk, K., Roddenberry, A., Oliveros, A., & Sieger, K. (2007). The relationship of maternal characteristics and perceptions of children to children's emotional and behavioral problems. *Child and Family Behavior Therapy*, *29*(1), 37–57. https://doi.org/10.1300/J019v29n01_03

Roger, K. M., Rinaldi, C. M., & Howe, N. (2012). Mothers' and fathers' internal state language with their young children: An examination of gender differences during an emotions task. *Infant and Child Development*, *21*, 646–666. https://doi.org/10.1002/icd

Russell, B. S., Hutchison, M., Tambling, R., Tomkunas, A. J., & Horton, A. L. (2020). Initial challenges of caregiving during COVID-19: Caregiver burden, mental health, and the parent–child relationship. *Child Psychiatry and Human Development*, *51*(5), 671–682. https://doi.org/10.1007/s10578-020-01037-x

Snyder, J., Stoolmiller, M., Wilson, M., & Yamamoto, M. (2003). Child anger regulation, parental responses to children's anger displays, and early child antisocial behavior. *Social Development*, *12*(3), 335–360. https://doi.org/10.1111/1467-9507.t01-1-00237

Tan, P. Z., Oppenheimer, C. W., Ladouceur, C. D., Butterfield, R. D., & Silk, J. S. (2020). A review of associations between parental emotion socialization behaviors and the neural substrates of emotional reactivity and regulation in youth. *Developmental Psychology*, *56*(3), 516–527. https://doi.org/10.1037/dev0000893.A

Taylor, J. (2019). Structural validity of the Parenting Daily Hassles Intensity Scale. *Stress and Health*, *35*(2), 176–186. https://doi.org/10.1002/smi.2852

Trommsdorff, G., Cole, P. M., & Heikamp, T. (2012). Cultural variations in mothers' intuitive theories: A preliminary report on interviewing mothers from five nations about their socialization of children's emotions. *Global Studies of Childhood*, *2*(2), 158–169. https://doi.org/10.2304/gsch.2012.2.2.158

Weijers, D., van Steensel, F. J. A., & Bögels, S. M. (2018). Associations between psychopathology in mothers, fathers and their children: A structural modeling approach. *Journal of Child and Family Studies*, *27*(6), 1992–2003. https://doi.org/10.1007/s10826-

018-1024-5

Wilson, K. R., Havighurst, S. S., & Harley, A. E. (2012). Tuning in to Kids: An effectiveness trial of a parenting program targeting emotion socialization of preschoolers. *Journal of Family Psychology*, *26*(1), 56–65. https://doi.org/10.1037/a0026480

Wong, M. S., McElwain, N. L., & Halberstadt, A. G. (2009). Parent, family, and child characteristics: associations with mother- and father-reported emotion socialization practices. *Journal of Family Psychology*, *23*(4), 452–463. https://doi.org/10.1037/a0015552

Yakub, N. A., Kadir, N. B. A., & Hoesni, S. M. (2021). The relationship between daily hassles and social support on depressive symptoms among mothers of young kids. *The Open Psychology Journal*, *14*(1), 294–299. https://doi.org/10.2174/1874350102114010294

Yan, J., Han, Z. R., & Li, P. (2016). Intergenerational transmission of perceived bonding styles and paternal emotion socialization: Mediation through paternal emotion dysregulation. *Journal of Child and Family Studies*, *25*(1), 165–175. https://doi.org/10.1007/s10826-015-0199-2

Zinsser, K. M., Gordon, R. A., & Jiang, X. (2021). Parents' socialization of preschool-aged children's emotion skills: A meta-analysis using an emotion-focused parenting practices framework. *Early Childhood Research Quarterly*, *55*, 377–390. https://doi.org/10.1016/j.ecresq.2021.02.001

Chapter 5:

Study 3. Examining the Associations Between Parental Self-Efficacy and Parental Emotion Socialization

Abstract

Parental self-efficacy is the belief parents hold about their ability to encourage their child's healthy development (Jones & Prinz, 2005). Parental self-efficacy is linked to myriad parenting behaviours, yet only a handful of researchers have investigated the relationship between parental self-efficacy and parents' emotion socialization behaviours. At present, the emerging body of research provides preliminary evidence of the association between parental self-efficacy and emotion socialization, though several discrepancies across study outcomes are noted. The purpose of this study was to assess the association between parental self-efficacy and both parents' supportive and unsupportive emotion socialization behaviours with a sample of 268 mothers and fathers of children between the ages of 7-11 years. Parents completed an online survey that asked about parental self-efficacy, responses to children's negative emotions, and emotional expressivity. Structural equation modeling was performed to specify a measurement model of parental self-efficacy and emotion socialization, as well as to test the structural pathways between parental self-efficacy and both supportive and unsupportive emotion socialization. The results yielded a satisfactory measurement model and significant pathways between key variables; however, the model explained a small amount of variance in supportive emotion socialization and no variance in unsupportive emotion socialization. The current study extends the parenting literature by helping elucidate the relationship between parental self-efficacy and emotion socialization, which may support parents and clinicians in better understanding how to promote adaptive emotion socialization behaviours.

Keywords: parental self-efficacy, parental emotion socialization, structural equation modeling

Introduction

Parental self-efficacy refers to parents' belief about their ability to influence their child in ways that promote their child's healthy development (Jones & Prinz, 2005). Parents who more strongly believe in their ability to promote their child's development are noted to engage in more positive parenting behaviours that, in turn, promote children's socio-emotional development (Albanese et al., 2019; Jones & Prinz, 2005). For example, a recent review by Glatz and Buchanan (2021) highlighted that parents with high levels of parental self-efficacy are "more likely to use parenting practices that support their children's skills, talents, and interests as well as to act in ways that reduce the likelihood of negative child adjustment" (p. 2) than parents with lower levels of parental self-efficacy. Similarly, a review by Albanese and colleagues (2019) noted that parental self-efficacy is associated with more open communication and a positive parent-child relationship. Although there exists a large body of research on parental self-efficacy, there is a relative lack of research on the association between parental self-efficacy and parents' emotion socialization (Fung et al., 2021; Sack, 2021; Ziv et al., 2020). Emotion socialization refers to the behaviours parents engage in that teach children how to manage and express their emotions (Eisenberg et al., 1998). Emotion socialization impacts many aspects of children's development, including emotion regulation and peer relationships, and is therefore an instrumental component of the parenting role (Grusec & Hastings, 2015). Thus, the present study examined the associations between parental self-efficacy and parents' emotion socialization behaviours to elucidate this relationship.

Parental Self-efficacy

According to self-efficacy theory, an individual's self-efficacy beliefs are related to their perceived skill and ability (Bandura, 1982). Coleman and Karraker (1998) described the four

main informational sources believed to contribute to the development of self-efficacy beliefs: (a) previous success and failures (i.e., personal accomplishment history); (b) comparisons between oneself and others; (c) verbal feedback from others; and (d) emotional arousal, such that high levels of distress are associated with anticipation of failure. Karraker and Coleman also emphasized how information from these sources is then cognitively appraised by the individual, which further impacts one's self-efficacy beliefs. According to Bandura (1977, 1986), self-efficacy beliefs encompass several dimensions, including one's estimate of their ability to perform a behaviour across various task difficulty (i.e., magnitude), confidence in their ability to perform the behaviour (i.e., strength), and expectations of mastery translating to other activities (i.e., generality).

Parental self-efficacy is a domain-specific, multidimensional construct that developed from Bandura's self-efficacy theory (Vance & Brandon, 2017). Within the parenting context, parental self-efficacy is influenced by a confluence of factors, including family-related factors, (e.g., child age, household income, parent education level, previous parenting experiences) as well as cognitive factors specific to parenting (Glatz & Buchanan, 2015). According to Bandura's theory, individuals with higher self-efficacy tend to engage in more positive behaviours, leading to more positive outcomes and, in turn, further enhancing self-efficacy beliefs (Bandura, 1977). This positive feedback loop as applied to parents and the parenting context suggests that parents with higher parental self-efficacy may engage in more supportive parenting behaviours which results in more positive child behaviours and subsequently greater parental self-efficacy (Wittkowski et al., 2017). Parental self-efficacy may therefore be measured as an antecedent, mediator, and outcome variable (Jones & Prinz, 2005). In this respect, parenting researchers study parental self-efficacy as an influencer of or contributor to parenting

outcomes, as the mediating variable that connects parental self-efficacy with children's behavioural outcomes, or as the outcome variable that is predicted by various aspects of the family context, such socioeconomic status or children's developmental stage (Albanese et al., 2019; Jones & Prinz, 2005). Given its associations with parenting behaviours, it is not surprising that parental self-efficacy is a construct of interest for parenting researchers and a target of clinical intervention for programs aimed at improving parent and child functioning (Albanese et al., 2019).

A model of parental self-efficacy was put forth by Ardelt and Eccles (2001) that is consistent with and builds upon Bandura's model of self-efficacy. Specifically, Ardelt and Eccles outlined a bidirectional relationship between parental self-efficacy, promotive parenting strategies (i.e., techniques to support child's skills and learning), and children's developmental outcomes. The authors posited that parents who believe they are efficacious are more likely to engage in promotive parenting and, in turn, increase their child's chances of success; on the other hand, parents with lower parental self-efficacy may feel discouraged by parenting difficulties or when faced with challenging child behaviours, serving to confirm and reinforce thoughts and feelings of powerlessness (Ardelt & Eccles, 2001). This model provides an important theoretical foundation through which parental self-efficacy can be conceptualized as a parent characteristic and an antecedent variable that influences parenting behaviours and, subsequently, children's outcomes.

According to two reviews, parental self-efficacy is most frequently examined as an antecedent of parent-related outcomes, such as specific parenting behaviours, styles, and competence (Albanese et al., 2019; Jones & Prinz, 2005). These studies have found higher parental self-efficacy to be associated with a wide range of positive parenting behaviours,

including routines in the home (Aldoney Ramirez, 2015), family communication (Bandura et al., 2011), and promotive parenting practices (Ardelt & Eccles, 2001). For example, Shumow and Lomax (2002) determined that parental self-efficacy predicted parents' involvement and monitoring behaviours in a large sample of parents and adolescents. Prior research has also identified that lower parental self-efficacy is related to coercive parenting and predicted maternal reactivity (Bor & Sanders, 2004), and was associated with future hostile parenting, even after controlling for a host of family and parent factors (e.g., socioeconomic position, paternal and maternal mental health, current parenting behaviour; Rominov et al., 2016). Taken together, this body of research shows parental self-efficacy is related to many parenting behaviours, illustrating its importance in understanding parenting behaviours and parent-child relationship.

Parental Emotion Socialization

Improving the social and emotional development of children has received significant attention in recent years (Behrendt et al., 2019; Bjørk et al., 2022; Havighurst et al., 2022; Kehoe et al., 2020). Parental emotion socialization refers to the ways in which parents teach children to manage and regulate their emotions (Eisenberg et al., 1998). This process is a core part of parenting and is associated with many social-emotional developmental outcomes across childhood (Grusec & Hastings, 2015; Johnson et al., 2014). In their seminal review, Eisenberg and colleagues (1998) presented a heuristic model of parental emotion socialization. In this model, parental emotion socialization practices influence children's arousal, which influences child-related outcomes (e.g., children's emotion regulation, parent-child relationship). Child-related outcomes, in turn, bidirectionally effect children's social behaviours and social competence. Eisenberg and colleagues highlighted many parent characteristics (e.g., parenting style, emotion-related beliefs), child characteristics (e.g., age, temperament), cultural factors

(e.g., emotion-related norms and values), and contextual factors (e.g., degree of emotion) that influence parental emotion socialization behaviours. A plethora of research has since provided empirical evidence of Eisenberg's model, serving to underscore the need to identify antecedents of emotion socialization given its primary role in shaping children's developmental outcomes (Eisenberg, 2020; Grusec & Hastings, 2015; Lozada & Brown, 2020). For the present study, the chief focus will be on examining parent characteristics that influence parental emotion socialization behaviours.

Parental emotion socialization is comprised of several behaviours, including: (a) parents' discussion of emotions, (b) expression of emotion, and (c) responses to children's emotions (Eisenberg et al., 1998). Specifically, parents directly shape children's knowledge of emotions through emotion-focused discussions. Such discussions may encompass a range of salient emotion-related topics, such as helping children process emotions and identify emotional cues, subsequently promoting children's awareness and understanding of their emotions (Denham et al., 2007; Roger et al., 2012). Additional opportunities for socialization occur through parents' expression of their own emotions, which model for children how to express and regulate emotion (Denham et al., 2007). Parents express positive and negative emotions, such as happiness and sadness respectively, and communicate these emotions both verbally and nonverbally (e.g., facial, body language). Research demonstrates that parents who are more expressive are more likely to communicate both positive and negative emotions and that expressivity can vary by parents' culture and individual personalities (Meyer et al., 2014). Finally, the way parents respond to their child's emotions subsequently shapes children's emotions. For example, when parents respond to children's negative emotions by providing comfort or offering support, they communicate support for children's expression of anger or sadness. Likewise, dismissing or

punishing children when they express negative emotions may serve to discourage future expressions of negative emotions (Klimes-Dougan & Zeman, 2007). Collectively, these parental emotion socialization behaviours contribute strongly to children's socio-emotional development (Grusec & Hastings, 2015).

Parental Self-Efficacy and Emotion Socialization

The research linking parental self-efficacy with supportive and promotive parenting (Albanese et al., 2019; Glatz & Trifan, 2019) suggests parental self-efficacy may be an antecedent, parent-related variable that relates to parental emotion socialization. Despite this potential link, there are relatively few empirical examinations of the relationship between parental self-efficacy and parental emotion socialization. In one such study, Fung et al. (2021) assessed the relationship between parental self-efficacy, negative child affect, and emotion socialization in a sample of parents and kindergarten-age children. The authors found parental self-efficacy was positively related to parents' problem-focused and emotion-focused responses to children's negative emotions, and predicted parents' future supportive emotion socialization behaviours. These results were partially supported by Sack (2021) who found parental self-efficacy predicted fathers encouraging children's expression of negative emotions with a sample of parents of middle-school age children. Sack also examined the relationship between parental self-efficacy and parents' minimizing and punishment responses, but found no relationship between these variables. Finally, Ziv (2020) examined the relationship between fathers' responses to adolescents' negative emotions and several parent-related characteristics, including parental self-efficacy. In contrast to Fung and Sack, Ziv found parental self-efficacy was not correlated with fathers' supportive emotion socialization responses and was, in fact, negatively correlated with fathers' unsupportive (i.e., minimizing, distress, and punishment responses) and

detached responses (i.e., withdrawal, giving in). While the outcomes of these studies are not completely congruent, it is possible the discrepancies stem from differences in the study sample (i.e., mother versus father, child versus adolescent) and in the measurement of emotion socialization. For example, Sack did not assess the relationship between parental self-efficacy and parents' distress response, one of three commonly tested unsupportive emotion socialization responses to children's emotions, due to low subscale reliability. Ziv, on the other hand, included all three types of unsupportive emotion socialization responses and included additional types of unsupportive emotion socialization responses, including withdrawal and giving in. Despite these inconsistencies, the studies by Fung, Sack, and Ziv offer preliminary evidence that parental self-efficacy is related parents' emotion socialization and underscore the relationship between parental self-efficacy and emotion socialization merits further study.

Given the lack of scholarship and inconsistent research outcomes on parental self-efficacy and emotion socialization, additional research exploring the relationship between these variables is warranted and would help enhance knowledge of the relationship between parental self-efficacy and emotion socialization. Specifically, more clarity is needed to help reconcile the inconsistent results of the small but growing literature on parental self-efficacy and emotion socialization. Furthermore, the few studies that exist on parental self-efficacy and emotion socialization included only one measure of parental emotion socialization, namely responses to children's negative emotions (Fung et al., 2021; Sack, 2021; Ziv et al., 2020). Expanding this line of research to include other emotion socialization behaviours (i.e., parents' expression of emotion) may offer additional insights and a more comprehensive understanding of whether parental self-efficacy is associated with parents' emotion socialization. Moreover, given that parental self-efficacy is often a clinical target of parenting programs, such research may provide

useful information for clinicians interested in understanding factors that contribute to and detract from parents' emotion socialization behaviours.

Current study

The purpose of this study was to assess the associations between parental self-efficacy and parents' emotion socialization. This study is informed by parental self-efficacy theory (Ardelt & Eccles, 2001), as well as the theoretical emotion socialization framework proposed by Eisenberg and colleagues (1998). In the current study, the emotion socialization behaviours assessed included parents' responses to children's negative emotions, as well as their expressions of emotion. Emotion socialization behaviours were categorized as supportive or unsupportive based on research showing whether such behaviours were associated with adaptive or maladaptive outcomes with families from Western cultures (Eisenberg et al., 1998; Johnson et al., 2017; Raval et al., 2013). Specifically, supportive emotion socialization included supportive responses to children's negative emotions (e.g., offering comfort, problem-solving), and parents' expression of positive emotions (e.g., happiness, forgiveness). Unsupportive emotion socialization included unsupportive responses to children's negative emotions (e.g., punishing, dismissing) and parents' expression of negative emotions (e.g., anger).

Parental self-efficacy was conceptualized as an antecedent of parents' emotion socialization based on the aims of the study and Eisenberg's emotion socialization framework, whereby parental self-efficacy is considered a parent-characteristic (Eisenberg et al., 1998). Furthermore, parental self-efficacy may be measured at the domain level, where broader beliefs about parenting abilities are assessed, or at the task level, where beliefs about one's ability to perform a specific task are assessed (Bandura, 1997). While Bandura's theory indicates a task-specific measure of parental self-efficacy best predicts certain parenting behaviours, a domain-

based measure was suggested to be more applicable to parents of children of different ages because it adopts a more general approach and does not focus on specific situations that may not be as relevant to some parents (Coleman & Karraker, 1998). A domain-based measure was used for the current study to capture a broad range of parent beliefs and experiences.

A two-step structural equation modeling approach was employed to: (a) specify a model to measure the latent parental self-efficacy, supportive emotion socialization, and unsupportive emotion socialization constructs using relevant observed variables; and (b) examine the structural pathways between parental self-efficacy and both supportive and unsupportive emotion socialization. In line with the extant parenting literature, it was hypothesized that the latent parental self-efficacy, supportive emotion socialization, and unsupportive emotion socialization constructs would be measured appropriately by the associated indicator variables in the study. A positive association between parental self-efficacy and supportive emotion socialization and negative association between parental self-efficacy and unsupportive emotion socialization were also expected, given research indicating higher parental self-efficacy is positively related to other supportive parenting behaviours and negatively related to coercive and hostile parenting behaviours (Albanese et al., 2019; Jones & Prinz, 2005).

Method

Participants and Procedure

The current study followed a correlational, cross sectional research design to examine parental emotion socialization and parenting self-efficacy. The eligibility criteria for participation for this study included having a child between the ages of 7-11 years (i.e., middle childhood) and participation from one parent per family. Parents were recruited across Canada via online advertisement and email invitation via social media websites, research databases, and word-of-

mouth from April 2020 to February 2021. Data were collected using REDCap, an electronic data capture tool hosted and supported by the Women and Children's Health Research Institute at the University of Alberta (Harris et al., 2009). The questionnaires took approximately 10 minutes to complete. Parents were invited to participate in a draw for an e-gift card to a bookstore as compensation for their participation.

For detailed sociodemographic information, please see Table 1. A total of 256 mothers and 23 fathers participated in the current study. After conducting preliminary analyses, the final sample consisted of 268 parents (246 mothers, 22 fathers). Parents' ages ranged from 24 to 54 years (M = 39.40 SD = 5.32). Most parents identified as Caucasian, were highly educated, and reported no previous mental or physical health conditions. Approximately half of parents were employed and the median family income was $100,001 - $125,000 Canadian. The majority of parents were married with two children. Fifty-five percent of parents' children were male, and the mean child age was 8 years (M = 8.67, SD = 1.34).

Measures

Emotion Socialization

Parental Responses to Children's Emotions. The *Coping with Children's Negative Emotions Scale* is a self-report questionnaire that contains 72 questions pertaining to 12 common situations in which children display negative emotions (CCNES; Fabes et al., 2002). Parents are asked to rate using a Likert scale, ranging from 1 (*very unlikely*) to 7 (*very likely*), how likely they are to respond to children's negative emotions with six different responses: (a) distress (i.e., parents are distressed by child's negative emotions); (b) punitive (i.e., parents punish child's negative emotion); (c) expressive encouragement (i.e., parents accept child's emotions); (d) emotion-focused (i.e., parents comfort child); (e) problem-focused (i.e., parents help resolve

problem); and (f) minimizing (i.e., parents dismiss problem or emotions of child). Scores for response type are summed to create six response subscales. Higher scores reflect greater use of response type to children's negative emotions.

The six response subscales are typically grouped to create 'supportive' and 'unsupportive' emotion socialization categories (e.g., Baker et al., 2011; Hurrell et al., 2015; Yan et al., 2016). Unsupportive emotion socialization include distress, punitive and minimizing responses, and supportive emotion socialization include expressive encouragement, emotion-focused, and problem-focused responses. A study by Fabes and colleagues (2002) found the CCNES to demonstrate good internal consistency reliability with a sample of mothers and fathers of young children (α = 0.69 - 0.85), as well as test-retest reliability after a period of several months (r = 0.62 - 0.83). In the current sample, internal consistency ranged from acceptable to excellent for the distress, punitive, minimizing, problem focused, expressive encouragement, and emotion-focused response subscales. The respective internal consistency values for these subscales were as follows: 0.73, 0.81, 0.85, 0.78, 0.91, and 0.83.

Parental Emotional Expressivity. The *Self-Expressiveness in the Family Questionnaire* is a 40 item, self-report questionnaire designed to measure parents' positive and negative emotional expressivity (SEFQ; Halberstadt et al., 1995). For each item, parents indicate their frequency of expressions using a Likert scale that ranges from 1 (*never express those feelings*) to 9 (*express those feelings very frequently*). Items on the SEFQ comprise two subscales: (a) positive expressions (e.g., giving compliments, apologizing, showing thanks); and (b) negative expressions (e.g., criticizing, expressing contempt). Higher scores indicate more frequent emotional expressions. In a sample of parents with children in kindergarten and elementary school, Halberstadt and colleagues (1995) found the SEFQ demonstrated strong internal

consistency reliability (positive subscale α = 0.91, negative subscale α = 0.89), test-retest reliability after a period of eight months (*r* = 0.64 - 0.82), and convergent and discriminant validity in the expected directions with marital satisfaction, loneliness, and other related constructs. Evidence of reliability for the SEFQ in samples of mothers with young children has been reported by other parenting researchers (Eisenberg et al., 2003; Meyer et al., 2014). In the current sample, coefficient alpha for the positive and negative expressivity subscales was excellent (α = 0.90 and 0.87, respectively).

Parental Self-Efficacy

The *Parenting Sense of Competence* scale is a 17 item, self-report measure designed to measure parents' satisfaction and efficacy in the parenting role (PSOC; Johnston & Mash, 1989; Appedix I). Johnston and Mash (1989) reported that they adapted the original version of the PSOC, which was developed by Gibaud-Wallston and Wandersman (1978, as cited in Johnston & Mash, 1989) for use with infants, to be relevant with older children. Parents use a Likert scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*) to rate their agreement with statements about their parenting experience. The items are summed to form two subscales: (a) satisfaction (e.g., parents' feeling frustrated or rewarded in parenting role); and (b) efficacy (i.e., parents' confidence in ability to solve problems, familiarity with parenting role, feelings of competence). Higher scores on the PSOC reflect greater parenting self-efficacy. Given the scope of the present study, only the eight items comprising the efficacy subscale were used.

Johnston and Mash (1989) found that the efficacy subscale of the PSOC demonstrated strong internal consistency reliability (α = .76) in a sample of mothers and fathers of young children. Adequate construct validity was also found through significant partial correlations between the efficacy subscale and related constructs (i.e., parenting style, child internalizing

behaviours) in a sample of mothers and fathers of young children (Ohan et al., 2000). In the current sample, internal consistency reliability was excellent ($\alpha = .85$).

Data Analysis Plan

Preliminary analyses included missing data, descriptive statistics, and bivariate correlations among parental self-efficacy and parental emotion socialization, and were carried out using SPSS 28. Structural equation modeling was conducted using Mplus Editor and Diagrammer Version 1.8.6 (1) to examine both the measurement and structural models (Muthén & Muthén, 1998-2017). Parental self-efficacy was measured using all eight items from the parental self-efficacy subscale. To measure parental supportive emotion socialization, the following subscales (i.e., indicator or observed) were used: expressive encouragement responses, emotion-focused responses, problem-focused responses, and positive expressions. Similarly, parental unsupportive emotion socialization was measured by the following subscales: distress responses, punitive responses, minimizing responses, and negative expressions.

In the structural model, the exogenous variable was parental self-efficacy and the endogenous variables were supportive and unsupportive parental emotion socialization. Maximum likelihood estimation with robust standard errors was used because it addresses missing data and performs well when non-normal data are present (Muthén & Muthén, 1998-2017). Global model fit criteria were used to evaluate both measurement and structural models, including chi-square, RMSEA, SRMR, CFI and TLI. Modification indices and standardized residuals were also examined to assess model fit. Model fit indices were interpreted according to the following guidelines: significant Chi-Square suggests poor fit; RMSEA value of less than 0.05 indicates acceptable fit, and values between 0.05 and 0.08 suggest adequate fit (Browne & Cudeck, 1992 in Du & Kim 2021); SRMR value less than .08 suggest good fit; CFI and TLI

values greater than 0.90 indicate acceptable fit (Hu & Bentler, 1999). Effect sizes were used to evaluate relationship between latent parental self-efficacy and supportive and unsupportive emotion socialization behaviours. Effect sizes were estimated using r^2 and were interpreted using the following guidelines: r^2 = .10 is a small effect, r^2= .30 is a medium effect, and r^2= .50 is a large effect (Cohen, 1992).

Results

Preliminary Analyses

The percent of participants with missing data across parenting self-efficacy and emotion socialization variables ranged from 0% to 22%, with rates of missing data increasing across the survey, suggesting participant attrition due to survey length. Eleven significant multivariate outliers were identified and removed. Upon removal of outliers, the final sample size consisted of 268 participants. Shapiro-Wilk test of normality indicated the data were not normal; thus, maximum likelihood estimation with robust standard errors was selected as the estimator to use when performing structural equation modeling analyses because it performs well with missing and non-normal data (Muthén & Muthén, 1998-2017). Means, standard deviations, and bivariate correlations between parental self-efficacy and emotion socialization indicator variables are reported in Table 2.

Measurement Model

The initial measurement model did not adequately fit the data [χ^2 (101) = 256.55, p = 0.000; RMSEA = 0.08 (0.06, 0.87); SRMR = .073; CFI = .86, TLI = .84], suggesting the need to respecify the model. Upon inspection, standardized residuals (3.34) and modification indices (21.03) indicated allowing the residuals of positive and negative expressivity indicator variables to correlate would improve model fit. Importantly, there is theoretical evidence parents who tend

to engage in more positive expressions also engage in more negative expressions (Meyer et al., 2014; Wong et al., 2009), which supports this statistical modification. Despite improvements, the respecified model did not adequately fit the data [χ^2 (100) = 232.80, p = 0.000; RMSEA = 0.07 (0.06, 0.82); SRMR = .071; CFI = .88, TLI = .86]. Based on normalized residual (0.98) and modification indices (18.80), the residuals of expressive encouragement responses and emotion-focused responses were allowed to covary. This suggestion is consistent with previous parenting studies, which have found positive associations between expressive encouragement and emotion-focused responses (Meyer et al., 2014; Rogers et al., 2016). Global fit indices showed the respecified measurement model adequately fit the data [χ^2 (99) = 204.59, p = 0.000; RMSEA = 0.06 (0.05, 0.08); SRMR = .058; CFI = 0.93, TLI = 0.91]. The final measurement model is presented in Figure 1.

Structural Model

Global fit statistics for the structural model showed adequate fit [χ^2 (99) = 204.59, p = 0.000; RMSEA = 0.06 (0.05, 0.08); CFI = 0.91, TLI = 0.89]. The pathway between parental self-efficacy and supportive parental emotion socialization was significant (β = 0.329, p = .000) and demonstrated a small effect size, explaining approximately 11% of the variance in parental supportive emotion socialization (R^2 = 0.108, p = .038). The pathway between parental self-efficacy and unsupportive parental emotion socialization was significant (β = -0.149, p = .050), but parental self-efficacy did not account for significant variance in parental unsupportive emotion socialization (R^2 = 0.022, p = .327). The structural model is presented in Figure 2.

Discussion

The relationship between parental self-efficacy and parental supportive and unsupportive emotion socialization was examined. A two-step structural equation modeling approach was

implemented, such that a measurement model for parental self-efficacy and both supportive and unsupportive emotion socialization was specified and then the pathways between these variables were tested. Results of this study yielded an adequate measurement model for parental self-efficacy and parental emotion socialization with the current study sample. Furthermore, parental self-efficacy was significantly associated with both supportive and unsupportive emotion socialization; however, the model explained a small amount of variance in supportive emotion socialization and no variance in unsupportive emotion socialization. Thus, while parental self-efficacy is related to emotion socialization, emotion socialization appears to be explained by factors other than parental self-efficacy. The results are discussed in more detail below.

Except for the chi-square index, the model fit statistics indicated the measurement model was adequately measured by the indicator variables, supporting the proposed hypothesis. The significant Chi square index suggests the overall fit of the measurement model was not adequate; however, extant literature notes this index is overly sensitive, which has led researchers to advocate for the interpretation of multiple indices in the evaluation of the measurement model (Hancock & Mueller, 2010; Schumacker & Lomax, 2016). Indices such as RMSEA, CFI/TLI were in the acceptable range, demonstrating the final measurement model was adequate and would also benefit from improvement. The need for model improvement may stem from the positive and negative emotional expressivity indicator variables. While these variables were above the recommended cut off range, they loaded more poorly than other indicator variables onto the supportive and unsupportive emotion socialization constructs. This outcome is surprising given previous theory and literature linking parental emotional expressivity and responses to children's emotions (Eisenberg et al., 1998; Meyer et al., 2014; Wong et al., 2009). Within the emotion socialization literature, parenting researchers have begun to measure emotion

socialization in different ways in an effort to explore and enhance the precision of this construct and associated factors (Sack, 2021; Sosa-Hernandez et al., 2020). Given the outcomes of the current measurement model, researchers may wish to separate parents' emotion socialization by specific behaviours (e.g., responses to children's emotions, emotional expressivity) to examine if this improves the measurement of this construct.

Consistent with the proposed hypothesis, a significant positive relationship was found between parental self-efficacy and parents' supportive emotion socialization. These results indicate parents who more strongly believed in their ability to influence their child in ways that promote healthy child development were more likely to engage in supportive emotion socialization behaviours, including responding supportively to children's negative emotions and expressing positive emotions, while those with lower parental self-efficacy were less likely to engage in supportive emotion socialization behaviours. Given the research showing parental self-efficacy is related to numerous positive parenting behaviours, it follows that greater parental self-efficacy would be related to parents' supportive emotion socialization behaviours (Albanese et al., 2019; Jones & Prinz, 2005). The positive relationship between parental self-efficacy and supportive emotion socialization also aligns with research by Fung (2021) and Sack (2021), both of whom found higher parental self-efficacy was related to more supportive parental emotion socialization behaviours in early and middle childhood. As well, the current results extend the parenting literature through the inclusion of parents' emotional expressivity, another measure of parental emotion socialization that was not previously studied in relation to parental self-efficacy. This new knowledge is important because it shows that greater parental self-efficacy is not only associated with how parents respond to children's emotions, but also to the ways that parents model emotional expression. Expressing positive emotions, such as apologizing, giving thanks,

and showing forgiveness, models for children healthy and effective ways to communicate emotions and fosters skills necessary for adaptive emotion regulation development (Hajal & Paley, 2020). Thus, this finding may be helpful for parents and clinicians because it illustrates that when parents believe they have influence in shaping their child's growth in healthy ways, there is an increased likelihood they may express more positive emotions and respond to children's emotions with supportive responses.

In contrast, with the proposed hypothesis, parental self-efficacy was not related to parents' unsupportive emotion socialization behaviours. This finding suggests parents' beliefs about their parenting abilities were not related to unsupportive responses to children's negative emotions nor parents' expression of negative emotions. This finding is consistent with the outcomes found by Sack (2021), whose study yielded no association between parental self-efficacy and parents' unsupportive emotion socialization, but is not consistent with evidence by Ziv (2020), whereby fathers' parental self-efficacy was negatively correlated with unsupportive responses to adolescents' negative emotions. Several factors many contribute to the current study findings as well as the inconsistent outcomes across the aforementioned research. For example, both the current study and study by Sack were conducted with children in middle childhood, while the study by Ziv was conducted with adolescents. One explanation may be related to the fact that children in middle childhood communicate negative emotions less frequently than adolescents (Casey et al., 2010). Parents may respond to less frequent expressions of distress with supportive responses and more frequent expressions of anger or sadness with unsupportive responses, such as withdrawing from the conversation. Another explanation may involve differences in how unsupportive emotion socialization was measured across the studies. The current study measured unsupportive emotion socialization behaviours by parents' negative

responses to children's emotions (i.e., minimization, distress, punishment) and negative expressivity, while Sack used minimization and punishment responses to children's negative emotions, and Ziv used distress, minimization, and punishment responses to adolescents' negative emotions, along with two additional responses (i.e., withdrawal, giving in). It is possible that the relationship between parental self-efficacy and unsupportive emotion socialization may vary by type of unsupportive response and so differences across research findings may originate from differences in the specific unsupportive emotion socialization behaviours measured (Sosa-Hernandez et al., 2020). Given the inconsistency in measurement and results, future research may benefit from a methodological investigation of emotion socialization, and particularly unsupportive emotion socialization, to bring more consistency in measurement to this body of research and help explicate the relationships between emotion socialization and potential correlates.

The findings of this study also showed the parental self-efficacy model specified accounted for 11% of the variance in parents' likelihood to respond supportively to children's negative emotions and to express positive feeling and accounted for no variance in parents' unsupportive emotion socialization behaviours. These results demonstrate that parents' belief in their ability to foster children's positive development explains a small amount of their positive emotion socialization behaviours. Thus, these outcomes indicate supportive and unsupportive emotion socialization are generally motivated by factors other than parental self-efficacy. Emotion socialization may depend more on other factors, such as parents' beliefs about the emotions, and less on parents' parental self-efficacy during childhood. For example, Gottman and colleagues (1996) introduced the concept of meta-emotion, or one's thoughts and feelings about feelings, and argued that meta-emotion underpins parents' emotion socialization practices.

In a review, the authors outlined myriad research that has found parents who do not value children's negative emotions, such as anger or sadness, are more likely to engage in dismissing or punishing responses to children's expression of negative emotions, while those who are aware of and value their own and their child's emotions tend to engage in more emotion coaching behaviours (e.g., coach, validate, label children's emotions; Katz et al., 2012). The meta-emotion concept is commonly used in parenting research to examine parenting behaviours, such as overprotective parenting, and adolescent behaviours (Chang et al., 2021; Tiede, 2020).

Finally, this study contributes to emotion socialization theory by examining a parent characteristic, parental self-efficacy, and its relation to parents' emotion socialization behaviours. The findings of the present study demonstrated there is a small relationship between parental self-efficacy and supportive emotion socialization and that parental self-efficacy explains a small number of parents' supportive emotion socialization behaviours. This knowledge helps explicate the role of parental self-efficacy within the context of Eisenberg et al.'s (1998) emotion socialization framework, such that parental self-efficacy may be a correlate of supportive emotion socialization, but it does not serve as a key parent-related characteristic that generally explains parents' emotion socialization behaviours. Thus, the outcomes of this study enhance the theoretical understanding of emotion socialization theory by helping to explicate the role of parental self-efficacy and by offering new insights into the parent characteristic component of Eisenberg's emotion socialization framework.

Limitations

There are several limitations to consider when interpreting the results of the current study. First, in the current study, parental self-efficacy was conceptualized as a correlate of parents' emotion socialization, and thus, the pathway from parental self-efficacy to emotion socialization

was examined. Recommendations for structural equation modeling emphasize the possibility of other directional pathways existing and that significant findings for a model does not preclude other effects and pathways from existing (Hancock & Mueller, 2010). In fact, parental self-efficacy research indicates there is a bidirectional relationship between parental self-efficacy and parenting behaviours (Fung et al., 2021). The current study findings should therefore be interpreted as one possible model and explanation of the relationship between parental self-efficacy and emotion socialization. Second, a broad measure of parental self-efficacy instead of a task-specific measure of parental self-efficacy was used in this study to increase the applicability of the parental self-efficacy construct and capture parents' general parental self-efficacy. A benefit of using a task-specific measure of parental self-efficacy may be greater predictive ability between parental self-efficacy and a specific parenting behaviour (Bandura, 1977; Sanders & Woolley, 2005). A specific emotion socialization self-efficacy measure may therefore provide additional insights into parents' knowledge of and confidence in socializing children's emotions. A future line of inquiry may be the development of a parents' emotion socialization self-efficacy measure to continue exploring this relationship. Third, all measures in this study were completed by parents, which may increase the likelihood of shared rater variance. Despite this limitation, self-report measures are commonly used in parenting research and are particularly indicated in parental self-efficacy research because parental self-efficacy is supposed to reflect parents' belief in their parenting abilities (Wittkowski et al., 2017). Lastly, the present study was conducted primarily with mothers, with data collection taking place during the COVID-19 pandemic. Most families experienced significant disruptions to their lives during this time (Russell et al., 2020); however, the exact effects of COVID-19 on the present sample of parents are not known. As

such, the conclusions drawn from this study should interpreted with caution and care should be taken not to generalize the study findings beyond the scope of the current study sample.

Conclusion

In conclusion, this study examined parental self-efficacy and emotion socialization with parents of children in middle childhood. Structural equation modeling was employed to both develop a measurement model and test the pathways between parental self-efficacy and emotion socialization. In the present sample, an adequate measurement model was found whereby latent parental self-efficacy, supportive emotion socialization, and unsupportive emotion socialization were satisfactorily measured by their associated indicator variables. The outcomes of this study provide evidence of a small association between parental self-efficacy and parents' supportive emotion socialization and no relationship between parental self-efficacy and parents' unsupportive emotion socialization. Moreover, parental self-efficacy explained approximately 11% of parents' supportive emotion socialization behaviours, suggesting emotion socialization is generally explained by factors other than parental self-efficacy. Ultimately, the current results indicate that parental self-efficacy does not serve as a key parent characteristic within emotion socialization theory and that more research is needed to further elucidate and ameliorate the inconsistent findings about the relationship between parental self-efficacy and unsupportive emotion socialization.

Table 3.1

Sociodemographic Characteristics of Sample

Variable	Mother		Father		Full Sample	
	n	%	*n*	%	*n*	%
Sample size	246	92.0	22	8.0	268	100
[a] Parental ethnicity						
Indigenous	12	4.9	1	4.5	13	4.9
African	3	1.2	0	0	3	1.1
Asian	19	7.7	8	36.4	27	10.1
Caucasian	203	82.5	11	50.0	214	79.9
Latino/Hispanic	9	3.7	2	9.1	11	4.1
Middle Eastern	4	1.6	-	-	4	1.5
Métis	2	0.8	-	-	2	0.7
Highest education level						
Middle school	1	0.4	-	-	1	0.4
High school	6	2.4	1	4.5	7	2.6
Some college/technical school	15	6.1	3	13.6	18	6.7
College/technical school diploma	34	13.8	1	4.5	35	13.1
Some university	26	10.6	2	9.1	28	10.4
University undergraduate degree	76	30.9	5	22.7	81	30
University graduate degree	87	35.4	10	45.5	97	36
[a] Employment						
Employed	118	48	14	63.6	132	49.3
Student	35	14.2	4	18.2	39	14.6
Not working	12	4.9	-	-	12	4.5
Self-employed	23	9.3	3	13.6	26	9.7
Stay-at-home caregiver	51	20.7	-	-	51	19
Other	6	2.4	-	-	6	2.2
Accessed parenting supports						
Marital status						
Single	-	-	-	-	16	6
Married	-	-	-	-	209	78.3
Separated	-	-	-	-	14	5.2
Common law	-	-	-	-	18	6.7
Divorced	-	-	-	-	10	3.7
Household income						
$25,000 or less	-	-	-	-	6	2.7
$25,001 - $50,000	-	-	-	-	16	7.3
$50,001 - $100,000	-	-	-	-	44	20.1

$100,001 - $125,000	-	-	-	-	34	15.5
$125,001- $150,000	-	-	-	-	22	10
$150,001 - $175,000	-	-	-	-	19	8.7
$175,001 - $200,000	-	-	-	-	18	8.2
Over $200,000	-	-	-	-	34	15.5
Prefer not to answer	-	-	-	-	26	11.9
Child gender identity						
Male	-	-	-	-	121	55.3
Female	-	-	-	-	96	43.8
Identifies other than male or female	-	-	-	-	2	0.9
	M	*SD*	*M*	*SD*	*M*	*SD*
Parental age	39.24	5.33	41.29	4.98	39.40	5.32
Child age	-	-	-	-	8.67	1.34

[a] Reflects categories that do not total 100% as parents may select multiple response options.

Table 3.2

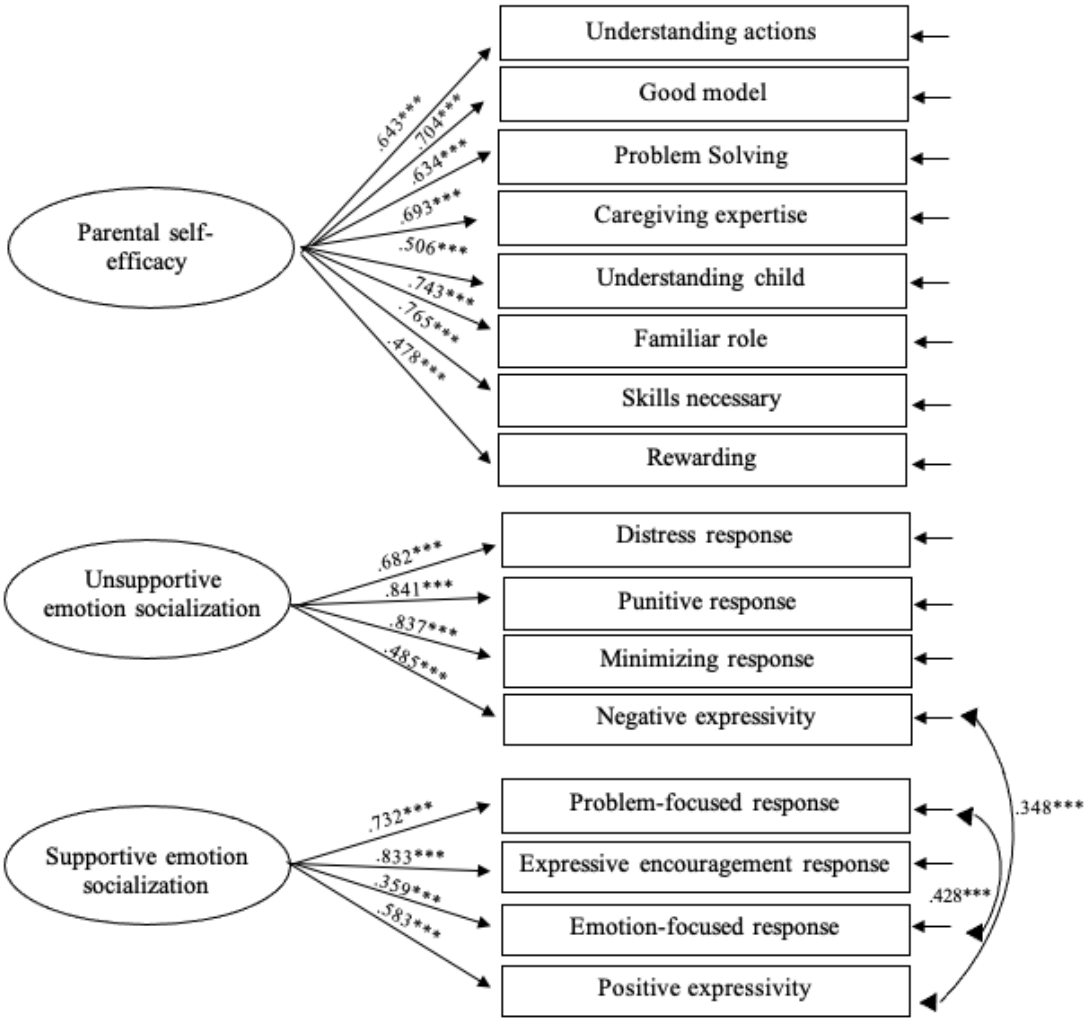
Descriptive Information and Correlations among Parental Self-Efficacy and Emotion Socialization Indicator Variables

Indicator Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. DR	--															
2. PR	.499**	--														
3. MR	.466**	.668**	--													
4. NE	.377**	.334**	.281**	--												
5. PF	-.173**	-.174**	-.139*	-0.059	--											
6. EE	-.346**	-.398**	-.414**	-0.094	.606**	--										
7. EF	-.128*	-0.056	0.081	0.074	.528**	.301**	--									
8. PE	-.221**	-.303**	-.259**	.132*	.353**	.444**	.286**	--								
9. P_1	-.30**	-.233**	-.206**	-0.075	.218**	.370**	.154*	.313**	--							
10. P_2	-.134*	-0.102	-0.113	-0.1	0.126	.193**	0.071	.185**	.560**	--						
11. P_3	-0.116	-0.078	-0.007	-.170*	0.067	0.049	0.053	0.048	.479**	.439**	--					
12. P_4	-.169*	-0.129	-.134*	-.202**	0.118	.177**	0.093	0.068	.404**	.519**	.545**	--				
13. P_5	-0.092	-0.1	-0.128	-0.063	.211**	.136*	0.071	.168*	.308**	.256**	.285**	.339**	--			
14. P_6	-.147*	-0.021	-0.074	-0.11	.176**	0.066	.211**	.165*	.400**	.518**	.442**	.510**	.464**	--		
15. P_7	-.136*	0.002	-0.024	-.202**	0.102	0.116	0.073	.172*	.455**	.490**	.478**	.543**	.363**	.646**	--	
16. P_8	-.137*	-0.085	-0.109	-0.127	.209**	.165*	.167*	.314**	.388**	.329**	.251**	.238**	.285**	.379**	.418**	--
Range	1.27-7	1-6	1-7	1.24-6.53	3.42-7	1-7	2.83-7	2.57-8.74	1-5	1-5	1-5	1-5	1-5	1-5	1-5	2-4
M	2.78	2.15	2.19	3.96	5.73	5.34	5.22	6.74	4.50	4.07	3.84	4.20	4.31	4.43	4.28	2.78
SD	0.79	0.81	0.88	1.06	0.68	1.02	0.87	1.04	0.96	0.98	1.08	1.07	1.10	1.13	1.07	0.81

* $p < .05$, ** $p < .01$, *** $p < .001$

Figure 3.1

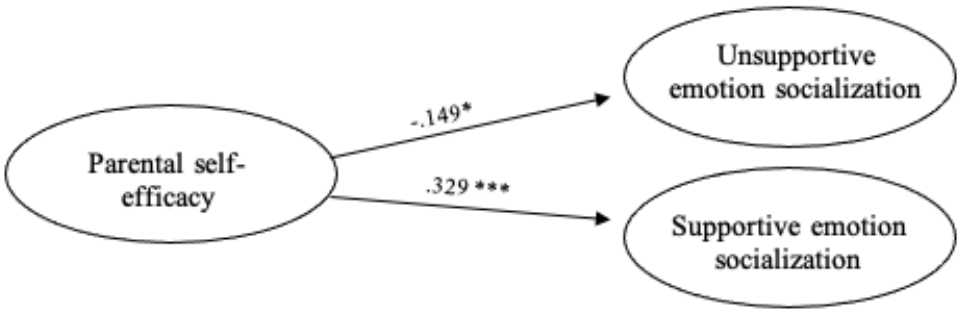
Measurement model with standardized coefficients



* $p < .05$, ** $p < .01$, *** $p < .001$

Figure 3.2

Structural model with standardized path coefficients



* $p < .05$, ** $p < .01$, *** $p < .001$

References

Abidin, R. R. (1990). Introduction to the special issue: The stresses of parenting. *Journal of Clinical Child Psychology*, *19*(4), 298–301. https://doi.org/10.1207/s15374424jccp1904

Albanese, A. M., Russo, G. R., & Geller, P. A. (2019). The role of parental self-efficacy in parent and child well-being: A systematic review of associated outcomes. *Child Care, Health and Development*, *45*(3), 333–363. https://doi.org/10.1111/cch.12661

Aldoney Ramirez, D. (2015). Low-income Latino immigrant mothers and their toddlers: How does socialization promote inhibitory control skills? [Unpublished doctoral dissertation]. University of Maryland.

Ardelt, M., & Eccles, J. S. (2001). Effects of mothers' parental efficacy beliefs and promotive parenting strategies on inner-city youth. *Journal of Family Issues*, *22*(8), 944–972. https://doi.org/10.1177/019251301022008001

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. P*sychological Review*, 84, 191–215.

Bandura, A. (1982). Self-efficacy in human agency. *American Psychologist,* 37, 122–147.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory.* Prentice-Hall.

Bandura, A., Caprara, G. V., Barbaranelli, C., Regalia, C., & Scabini, E. (2011). Impact of family efficacy beliefs on quality of family functioning and satisfaction with family life. *Applied Psychology*, *60*(3), 421–448. https://doi.org/10.1111/j.1464-0597.2010.00442.x

Behrendt, H. F., Scharke, W., Herpertz-Dahlmann, B., Konrad, K., & Firk, C. (2019). Like mother, like child? Maternal determinants of children's early social-emotional development. *Infant Mental Health Journal*, *40*(2), 234–247. https://doi.org/10.1002/imhj.21765

Bjørk, R. F., Bølstad, E., Pons, F., & Havighurst, S. S. (2022). Testing TIK (Tuning in to Kids) with TEC (Test of Emotion Comprehension): Does enhanced emotion socialization improve child emotion understanding? *Journal of Applied Developmental Psychology*, *78,* 1-12. https://doi.org/10.1016/j.appdev.2021.101368

Bor, W., & Sanders, M. R. (2004). Correlates of self-reported coercive parenting of preschool-aged children at high risk for the development of conduct problems. *Australian and New Zealand Journal of Psychiatry*, *38*(9), 738–745. https://doi.org/10.1111/j.1440-1614.2004.01452.x

Casey, B. J., Jones, R. M., Levita, L., Libby, V., Pattwell, S. S., Ruberry, E. J., Soliman, F., & Somerville, L. H. (2010). The storm and stress of adolescence: Insights from human imaging and mouse genetics. *Developmental Psychobiology*, *52*(3), 225–235. https://doi.org/10.1002/dev.20447

Chang, H. T., Liu, Y. L., & Kuo, C. S. (2021). The relationships among maternal meta-emotion philosophy, maternal video-mediated cognitions, and adolescent behavior adjustment in Taiwan. *Child Psychiatry and Human Development*. https://doi.org/10.1007/s10578-021-01283-7

Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112, 155-159.

Coleman, P. K., & Karraker, K. H. (1998). Self-efficacy and parenting quality: Findings and future applications. *Developmental Review*, *18*(1), 47–85. https://doi.org/10.1006/drev.1997.0448

Crnic, K. A., & Greenberg, M. T. (1990). Minor parenting stresses with young children. *Child Development*, *61*(5), 1628–1637.

Denham, S. A., Bassett, H. H., & Wyatt, T. (2007). The Socialization of Emotional Competence.

In J. E. Grusec & P. D. Hastings (Eds.), Handbook of socialization: Theory and research (pp. 614–637). The Guilford Press.

Du, X., & Kim, Y. K. (2021). Direct and indirect associations between family residential mobility, parent functioning, and adolescent behavioral health. *Journal of Child and Family Studies*, *30*(12), 3055–3069. https://doi.org/10.1007/s10826-021-02129-5

Eisenberg, N. (2020). Findings, issues, and new directions for research on emotion socialization. *Developmental Psychology*, *56*(3), 664–670. https://doi.org/10.1037/dev0000906

Eisenberg, N., Cumberland, A., & Spinrad, T. L. (1998). Parental socialization of emotion. *Psychological Inquiry*, *9*(4), 241–273.

Eisenberg, N., Valiente, C., Morris, A. S., Fabes, R. A., Cumberland, A., Reiser, M., Gershoff, E. T., Shepard, S. A., & Losoya, S. (2003). Longitudinal relations among parental emotional expressivity, children's regulation, and quality of socioemotional functioning. *Developmental Psychology*, *39*(1), 3–19. https://doi.org/10.1037/0012-1649.39.1.3

Fabes, R. A., Poulin, R. E., Eisenberg, N., & Madden-derdich, D. A. (2002). The Coping with Children's Negative Emotions Scale (CNNES): Psychometric properties and relations with children's emotional competence. *Marriage & Family Review*, *34*(3–4), 285–310. https://doi.org/10.1300/J002v34n03

Fung, W. K., Chung, K. K. H., & Lam, C. B. (2021). Parental self-efficacy: Examining its mediating and reciprocally predictive roles in supportive emotion socialization. *Family Process*, 1–13. https://doi.org/10.1111/famp.12688

Glatz, T., & Buchanan, C. M. (2015). Over-time associations among parental self-efficacy, promotive parenting practices, and adolescents' externalizing behaviors. *Journal of Family Psychology*, *29*(3), 427–437. https://doi.org/10.1037/fam0000076

Glatz, T., & Buchanan, C. M. (2021). Trends in parental self-efficacy between 1999 and 2014. *Journal of Family Studies*, *0*(0), 1–16. https://doi.org/10.1080/13229400.2021.1906929

Glatz, T., & Trifan, T. A. (2019). Examination of parental self-efficacy and their beliefs about the outcomes of their parenting practices. *Journal of Family Issues*, *40*(10), 1321-1345.

Gottman, J. M., Katz, L. F., & Hooven, C. (1996). Parental meta-emotion philosophy and the emotional life of families: Theoretical models and preliminary data. *Journal of Family Psychology*, *10*(3), 243–268. https://doi.org/10.1037//0893-3200.10.3.243

Grusec, J. E., & Hastings, P. D. (2015). *Handbook of socialization: Theory and research* (2nd ed.). The Guilford Press. https://doi.org/10.1017/CBO9781107415324.004

Hajal, N. J., & Paley, B. (2020). Parental emotion and emotion regulation: A critical target of study for research and intervention to promote child emotion socialization. *Developmental Psychology*, *56*(3), 403–417. https://doi.org/10.1037/dev0000864

Halberstadt, A. G., Cassidy, J., Stifter, C. A., Parke, R. D., & Fox, N. A. (1995). Self-expressiveness within the family context: Psychometric support for a new measure. *Psychological Assessment*, *7*(1), 93–103. https://doi.org/10.1037/1040-3590.7.1.93

Hancock, G. R., & Mueller, R. O. (Eds.). (2010). The *reviewer's guide to quantitative methods in the social sciences.* Routledge.

Havighurst, S. S., Kehoe, C. E., Harley, A. E., Radovini, A., & Thomas, R. (2022). A randomized controlled trial of an emotion socialization parenting program and its impact on parenting, children's behavior and parent and child stress cortisol: Tuning in to Toddlers. *Behaviour Research and Therapy*, *149*, 104016. https://doi.org/10.1016/j.brat.2021.104016

Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, *6*(1), 1–55.

https://doi.org/10.1080/10705519909540118

Hurrell, K. E., Hudson, J. L., & Schniering, C. A. (2015). Parental reactions to children's negative emotions: Relationships with emotion regulation in children with an anxiety disorder. *Journal of Anxiety Disorders*, *29*, 72-82. https://doi.org/10.1016/j.janxdis.2014.10.008

Johnson, A. M., Hawes, D. J., Eisenberg, N., Kohlhoff, J., & Dudeney, J. (2017). Emotion socialization and child conduct problems: A comprehensive review and meta-analysis. *Clinical Psychology Review*, *54*(September 2016), 65–80. https://doi.org/10.1016/j.cpr.2017.04.001

Johnson, B. D., Berdhal, L. D., Horne, M., Richter, E. A., & Walters, M. (2014). A parenting competency model. *Parenting: Science and Practice*, *14*(2), 92–120. https://doi.org/10.1080/15295192.2014.914361

Johnston, C., & Mash, E. J. (1989). A measure of parenting satisfaction and efficacy. *Journal of Clinical Child Psychology*, *18*(2), 167–175. https://doi.org/10.1207/s15374424jccp1802

Jones, T. L., & Prinz, R. J. (2005). Potential roles of parental self-efficacy in parent and child adjustment: A review. *Clinical Psychology Review*, *25*(3), 341–363. https://doi.org/10.1016/j.cpr.2004.12.004

Katz, L. F., Maliken, A. C., & Stettler, N. M. (2012). Parental meta-emotion philosophy: A review of research and theoretical framework. *Child Development Perspectives*, *6*(4), 417–422. https://doi.org/10.1111/j.1750-8606.2012.00244.x

Kehoe, C. E., Havighurst, S. S., & Harley, A. E. (2020). Tuning in to Teens: Investigating moderators of program effects and mechanisms of change of an emotion focused group parenting program. *Developmental Psychology*, *56*(3), 623–637.

https://doi.org/10.1037/dev0000875

Klimes-Dougan, B., & Zeman, J. (2007). Introduction to the special Issue of social development: Emotion socialization in childhood and adolescence. *Social Development*, *16*(2), 203–209. https://doi.org/10.1111/j.1467-9507.2007.00380.x

Lozada, F. T., & Brown, D. W. (2020). Emotion Socialization in the Family. *The Encyclopedia of Child and Adolescent Development*, 1–12. https://doi.org/10.1002/9781119171492.wecad183

Meyer, S., Raikes, H. A., Virmani, E., Waters, S., & Thompson, R. A. (2014). Parent emotion representations and the socialization of emotion regulation in the family. *International Journal of Behavioral Development*, *38*(2), 164–173. https://doi.org/10.1177/0165025413519014

Muthén, L.K. and Muthén, B.O. (1998-2017). *Mplus user's guide* (8th ed,). Muthén & Muthén

Ohan, J. L., Leung, D. W., & Johnston, C. (2000). The parenting sense of competence scale: Evidence of a stable factor structure and validity. *Canadian Journal of Behavioural Science*, *32*(4), 251–261. https://doi.org/10.1037/h0087122

Raval, V. V., Raval, P. H., & Deo, N. (2013). Mothers' socialization goals, mothers' emotion socialization behaviors, child emotion regulation, and child socioemotional functioning in urban India. *The Journal of Early Adolescence*, *34*(2), 229–250. https://doi.org/10.1177/0272431613485821

Roger, K. M., Rinaldi, C. M., & Howe, N. (2012). Mothers' and fathers' internal state language with their young children: an examination of gender differences during an emotions task. *Infant and Child Development*, *21*, 646–666. https://doi.org/10.1002/icd

Rogers, M. L., Halberstadt, A. G., Castro, V. L., MacCormack, J. K., & Garrett-Peters, P. (2016).

Maternal emotion socialization differentially predicts third-grade children's emotion regulation and lability. *Emotion*, *16*(2), 280–291. https://doi.org/http://dx.doi.org/10.1037/emo0000142

Rominov, H., Giallo, R., & Whelan, T. A. (2016). Fathers' postnatal distress, parenting self-efficacy, later parenting behavior, and children's emotional-behavioral functioning: A longitudinal study. *Journal of Family Psychology*, *30*(8), 907–917. https://doi.org/10.1037/fam0000216

Russell, B. S., Hutchison, M., Tambling, R., Tomkunas, A. J., & Horton, A. L. (2020). Initial challenges of caregiving during COVID-19: Caregiver burden, mental health, and the parent–child relationship. *Child Psychiatry and Human Development*, *51*(5), 671–682. https://doi.org/10.1007/s10578-020-01037-x

Sack, L. (2021). *Mixed Methods Examination of Mothers' and Fathers' Emotion Socialization-Related Self- Efficacy and Links to Emotion Socialization*.[Unpublished doctoral dissertation]. University of Guelph.

Sanders, M. R., & Woolley, M. L. (2005). The relationship between maternal self-efficacy and parenting practices: Implications for parent training. *Child Care, Health and Development*, *31*(1), 65–73. https://doi.org/10.1016/s0368-1742(89)80090-6

Schumacker, R. E., & Lomax, R. G. (2016). *A beginner's guide to structural equation modeling* (4th ed.). Taylor & Francis.

Shumow, L., & Lomax, R. (2002). Parental efficacy: Predictor of parenting behavior and adolescent outcomes. *Parenting*, *2*(2), 127–150. https://doi.org/10.1207/S15327922PAR0202_03

Sosa-Hernandez, L., Sack, L., Seddon, J. A., Bailey, K., & Thomassin, K. (2020). Mother and

father repertoires of emotion socialization practices in middle childhood. *Journal of Applied Developmental Psychology*, *69*(June), 101159. https://doi.org/10.1016/j.appdev.2020.101159

Tiede, M. A. (2020). T*he impact of parental meta-emotion philosophy and helicopter parenting on millennials' emotion regulation: A gendered analysis*. [Unpublished doctoral dissertation]. University of Rochester.

Vance, A. J., & Brandon, D. H. (2017). Delineating among parenting confidence, parenting self-efficacy, and competence. *Advances in Nursing Science*, *40*(4), E18–E37. https://doi.org/10.1097/ANS.0000000000000179

Wittkowski, A., Garrett, C., Calam, R., & Weisberg, D. (2017). Self-report measures of parental self-efficacy: A systematic review of the current literature. *Journal of Child and Family Studies*, *26*(11), 2960–2978. https://doi.org/10.1007/s10826-017-0830-5

Wong, M. S., McElwain, N. L., & Halberstadt, A. G. (2009). Parent, family, and child characteristics: Associations with mother- and father-reported emotion socialization practices. *Journal of Family Psychology*, *23*(4), 452–463. https://doi.org/10.1037/a0015552

Yan, J., Han, Z. R., & Li, P. (2016). Intergenerational transmission of perceived bonding styles and paternal emotion socialization: Mediation through paternal emotion dysregulation. *Journal of Child and Family Studies*, *25*(1), 165–175. https://doi.org/10.1007/s10826-015-0199-2

Ziv, I., Golbez, N., & Shapira, N. (2020). Parental sense of competence, resilience, and empathy in relation fathers' responses to children's negative emotions in the context of everyday paternal childrearing decisions. *Cogent Psychology*, *7*(1). https://doi.org/10.1080/23311908.2020.1794681

Chapter 6: Discussion

Emotion socialization has been extensively studied by parenting researchers because of the effect it has on promoting children's social and emotional development. Parenting stress and self-efficacy are recognized as correlates of positive parenting behaviours (Coleman & Karraker, 1998; Diener & Swedin, 2020); however, there are few studies examining these parent characteristics in relation to emotion socialization. Previous estimates showed that approximately 25% of parents report high levels of parenting stress (Moore et al., 2007); this number may be even greater as a result of the recent COVID 19 pandemic, which has significantly disrupted the lives of many parents (Gadermann et al., 2021). Parenting self-efficacy is associated with an array of positive parenting characteristics, including parenting quality and satisfaction (Coleman & Karraker, 1998; Jones & Prinz, 2005). Consequently, parenting stress and self-efficacy warrant further investigation as potential correlates of emotion socialization behaviours because these factors are relevant to parenting, may expand Eisenberg's emotion socialization theory (Eisenberg et al., 1998), and may offer practical information to support the parenting practices of parents as well as clinicians who work with families.

The overarching aim of this dissertation was to examine parenting stress and parenting self-efficacy as potential correlates of parents' supportive and unsupportive emotion socialization behaviours, thereby fostering knowledge of parenting factors associated with parents' emotion socialization. Two unique theories of parenting stress – the parent-child-relationship and daily hassles theories (Abidin, 1990; Crnic & Greenberg, 1990, respectively) – are used within the parenting stress literature, indicating that an investigation of the parenting stress construct and, potentially a broader conceptualization of parenting stress, was necessary to understand the relationship between parenting stress and emotion socialization more effectively. Therefore, the

first study involved a factor analysis of the sources of parenting stress identified in the parent-child relationship and daily hassles conceptualizations of parenting stress to contribute to broader understanding of parenting stress. Given that approximately 1 in 4 parents experience high levels of parenting stress (Moore et al., 2007), it is crucial to understand how parenting stress is related to parenting practice, such as emotion socialization. Thus, the purpose of the second study was to use the broader construct of parenting stress and examine how it relates to parents' supportive and unsupportive emotion socialization behaviours. Finally, in recognition of the many associations between parenting self-efficacy and promotive parenting behaviours (Coleman & Karraker, 1998; Jones & Prinz, 2005), the objective of the third study was to explore parenting self-efficacy as a correlate of parents' supportive and unsupportive emotion socialization behaviours. In the remainder of the discussion section, a summary of the three studies is presented followed by a summary of the contributions and implications of the current dissertation.

Presenting a Broader Parenting Stress Construct

The first study of the dissertation reviewed the parent, child, parent-child relationship, and parenting daily hassles sources of parenting stress, which are outlined in two common parenting stress theories, yielding a broader parenting stress construct that encompassed both problematic functioning and daily hassles perspectives. The findings of the first study illustrate that parenting stress is multiply determined, such that parenting stress arises not only from problematic functioning within each of the parent, child, and parent-child relationship domains, but also that parenting daily hassles uniquely contribute to parents' experiences of parenting stress. Thus, the four-factor model of parenting stress emphasizes the benefit of using a broader parenting stress construct in parenting research and provides a novel model through which the

maladaptive and normative ways that parenting stress originates can be understood and examined. Furthermore, the broader parenting construct may also support families in recognizing how parenting stress accumulates in different ways.

Examining the Relationship Between Parenting Stress and Parental Emotion Socialization

The second study of the dissertation drew upon the broader parenting stress construct established in the first study to investigate the relationship between parenting stress and parents' supportive and unsupportive emotion socialization. The outcomes of this study showed that parenting stress explains significant variance in parents' unsupportive emotion socialization but not in parents' supportive emotion socialization. These findings subsequently suggest that unsupportive and supportive emotion socialization behaviours may be explained by different factors. The association between parenting stress and emotion socialization exemplifies the importance of supporting parents who feel overwhelmed in the parenting role, as lower parenting stress levels are associated with fewer unsupportive emotion socialization behaviours.

Assessing Parenting Self-efficacy as a Correlate of Parental Emotion Socialization

Appreciating the role of parenting self-efficacy as a predictor and correlate of supportive parenting behaviours, the purpose of the third study was to examine the relationship between parenting self-efficacy and parents' emotion socialization. The results of study three highlighted that parenting self-efficacy is related to and explains a small amount of parents' supportive emotion socialization only, indicating a limited relationship between parenting self-efficacy and parents' emotion socialization more broadly. Thus, parenting researchers and practitioners may wish to focus on factors other than parenting self-efficacy if trying to promote and shift parents' emotion socialization behaviours.

Contributions and Implications

The collective findings of the current dissertation have advanced the understanding of emotion socialization theory by examining the associations between parents' emotion socialization and parenting stress and parenting self-efficacy, which were conceptualized as antecedents to emotion socialization using the emotion socialization framework proposed by Eisenberg et al. (1998). In particular, the results of the present dissertation offer evidence that parenting stress is a significant correlate of parents' unsupportive emotion socialization and may be important to include and consider within Eisenberg's emotion socialization framework, while parenting self-efficacy has little influence on and role within Eisenberg's framework. Additionally, the unique associations and explanatory power of parenting stress and self-efficacy provide evidence not only of the complex relationship and nuanced influence of upstream parent characteristics, but also that a more fine-tuned emotion socialization framework, perhaps at the supportive and unsupportive behaviour level, may be useful. Furthermore, the emotion socialization framework currently depicts emotion socialization behaviour as a single category or entity and may benefit from increased specificity and accuracy by emphasizing how antecedents are differentially related to emotion socialization behaviours. Taken together, the results of this dissertation elucidate the differential relationships between supportive and unsupportive emotion socialization and parenting characteristic correlates which were not previously identified in emotion socialization theory.

While the primary focus of the present dissertation was on emotion socialization correlates, researching the parenting stress literature identified the need for greater conceptual clarity of the parenting stress construct. The present dissertation therefore advanced parenting stress theory by examining the sources of parenting stress that were proposed by two parenting

stress theories and showing that parent-child relationship and daily hassle sources of parenting stress were of value. A broader parenting stress construct lends a more comprehensive understanding and measure of parenting stress than either theory could provide alone. Moreover, since much of the parenting stress literature is based on the problematic functioning perspective, a broader parenting stress construct may shed light on new connections between daily hassle sources of stress which have been historically understudied. Therefore, one contribution of the present dissertation is the identification of a broader parenting stress construct, along with psychometric evidence to support a 50-item merged questionnaire that captures both the parent-child relationship and daily hassle sources of parenting stress.

Along with advancements to research and theory, the present dissertation also offers clinical and educational implications. Specifically, illustrating that lower parenting stress is associated with fewer unsupportive emotion socialization behaviours suggests that supportive and unsupportive emotion socialization are motivated by different factors and, in turn, a 'one size fits all' clinical approach to supporting parents' emotion socialization may not be indicated. Clinicians may benefit from conceptualizing emotion socialization behaviours as two distinct constructs – supportive emotion socialization and unsupportive emotion socialization –with each construct having their own unique set of contributing factors. Distinguishing these constructs may inform clinical care by allowing care providers to tailor intervention efforts that promote factors associated with supportive emotion socialization behaviours and that ameliorate factors linked with unsupportive emotion socialization behaviours. Though the current dissertation cannot shed light on specific factors that might promote supportive emotion socialization, the findings show that parenting self-efficacy has little influence on parents' emotion socialization. That is, parents' beliefs about their parenting abilities explains little of their emotion socialization

behaviours. This knowledge encourages parents and clinicians to look beyond parenting self-efficacy as an antecedent and correlate of emotion socialization. Finally, of importance to parents and clinicians alike, the outcomes of the present dissertation underscore the importance of considering stress within the parent, child, or parent-child relationship as well as stress from everyday parenting hassles (e.g., cleaning up messes) as each of these sources of parenting stress contribute unique information about the origins of parenting stress.

References

Abidin, R. R. (1990). Introduction to the special issue: The stresses of parenting. *Journal of Clinical Child Psychology*, *19*(4), 298–301. https://doi.org/10.1207/s15374424jccp1904

Coleman, P. K., & Karraker, K. H. (1998). Self-efficacy and parenting quality: Findings and future applications. *Developmental Review*, *18*(1), 47–85. https://doi.org/10.1006/drev.1997.0448

Crnic, K. A., & Greenberg, M. T. (1990). Minor parenting stresses with young children. *Child Development*, *61*(5), 1628–1637.

Diener, M. L., & Swedin, M. N. (2020). Parenting stress. In S. H. Hupp and J. D. Jewell (Eds.), *The Encyclopedia of Child and Adolescent Development* (pp. 1–11). John Wiley & Sons. https://doi.org/10.1002/9781119171492.wecad206

Eisenberg, N., Cumberland, A., & Spinrad, T. L. (1998). Parental socialization of emotion. *Psychological Inquiry*, *9*(4), 241–273.

Gadermann, A. C., Thomson, K. C., Richardson, C. G., Gagné, M., Mcauliffe, C., Hirani, S., & Jenkins, E. (2021). Examining the impacts of the COVID-19 pandemic on family mental health in Canada: findings from a national cross-sectional study. *BMJ Open*, *11*(1), 1–11. https://doi.org/10.1136/bmjopen-2020-042871

Jones, T. L., & Prinz, R. J. (2005). Potential roles of parental self-efficacy in parent and child adjustment: A review. *Clinical Psychology Review*, *25*(3), 341–363. https://doi.org/10.1016/j.cpr.2004.12.004

Moore, C. G., Probst, J. C., Tompkins, M., Cuffe, S., & Martin, A. B. (2007). The prevalence of violent disagreements in US families: Effects of residence, race/ethnicity, and parental stress. *Pediatrics*, *119*(SUPPL. 1). https://doi.org/10.1542/peds.2006-2089K

Reference List For All Dissertation Chapters

Abdollahi, F., Agajani-Delavar, M., Zarghami, M., & Lye, M. S. (2016). Postpartum mental health in first-time mothers: A cohort study. *Iranian Journal of Psychiatry and Behavioral Sciences*, *10*(1), 1–7. https://doi.org/10.17795/ijpbs-426

Abidin, R. R. (1990). Introduction to the special issue: The stresses of parenting. *Journal of Clinical Child Psychology*, *19*(4), 298–301. https://doi.org/10.1207/s15374424jccp1904

Abidin, R. R. (1992). The determinants of parenting behavior. *Journal of Clinical Child Psychology*, *21*(4), 407–412. https://doi.org/10.1207/s15374424jccp2104

Abidin, R. R. (2012). *Parenting stress index* (4th ed.). Psychological Assessment Resources, Inc.

Albanese, A. M., Russo, G. R., & Geller, P. A. (2019). The role of parental self-efficacy in parent and child well-being: A systematic review of associated outcomes. *Child Care, Health and Development*, *45*(3), 333–363. https://doi.org/10.1111/cch.12661

Aldoney Ramirez, D. (2015). Low-income Latino immigrant mothers and their toddlers: How does socialization promote inhibitory control skills? [Unpublished doctoral dissertation]. University of Maryland.

Altan-Aytun, Ö., Yagmurlu, B., & Yavuz, H. M. (2012). Turkish mothers' coping with children's negative emotions: A brief report. *Journal of Child and Family Studies*, *22*(3), 437–443. https://doi.org/10.1007/s10826-012-9597-x

Anderson, M., & Magruder, J. (June 2017). *Split-Sample Strategies for Avoiding False Discoveries*. The National Bureau of Economic Research. http://www.nber.org/papers/w23544%0Ahttp://www.nber.org/papers/w23544.pdf

Anthony, L. G., Anthony, B. J., Glanville, D. N., Naiman, D. Q., Waanders, C., & Shaffer, S. (2005). The relationships between parenting stress, parenting behaviour and preschoolers'

social competence and behaviour problems in the classroom. *Infant and Child Development*, *14*, 133–154. https://doi.org/10.1002/icd

Ardelt, M., & Eccles, J. S. (2001). Effects of mothers' parental efficacy beliefs and promotive parenting strategies on inner-city youth. *Journal of Family Issues*, *22*(8), 944–972. https://doi.org/10.1177/019251301022008001

Are, F., & Shaffer, A. (2016). Family emotion expressiveness mediates the relations between maternal emotion regulation and child emotion regulation. *Child Psychiatry & Human Development*, *47*(5), 708-715.

Australian Institute of Family Studies (2010). *The longitudinal study of Australian children: Annual statistical report 2010*. Retrieved from: https://growingupinaustralia.gov.au/sites/default/files/asr2010.pdf

Azhari, A., Leck, W. Q., Gabrieli, G., Bizzego, A., Rigo, P., Setoh, P., Bornstein, M. H., & Esposito, G. (2019). Parenting stress undermines mother-child brain-to-brain synchrony: A hyperscanning study. *Scientific Reports*, *9*(1), 1–9. https://doi.org/10.1038/s41598-019-47810-4

Baker, B. L., Heller, T. L., & Henker, B. (2000). Expressed emotion, parenting stress, and adjustment in mothers of young children with behavior problems. Jo*urnal of Child Psychology and Psychiatry and Allied Disciplines*, *41*(7), 907–915. https://doi.org/10.1017/S0021963099006125

Baker, J. K., Fenning, R. M., & Crnic, K. A. (2011). Emotion socialization by mothers and fathers: Coherence among behaviors and associations with parent attitudes and children's social competence. *Social Development*, *20*(2), 412–430. https://doi.org/10.1111/j.1467-9507.2010.00585.x

Bandalos, D. L., & Finney, S. J. (2018). Factor analysis: Exploratory and confirmatory. In G. R. Hancock, L. M. Stapleton, & R. O. Mueller (Eds.) *The Reviewer's Guide to Quantitative Methods in the Social Sciences* (2nd ed., pp. 98-122). Routledge.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. P*sychological Review*, *84*, 191–215.

Bandura, A. (1982). Self-efficacy in human agency. *American Psychologist*, 37, 122–147.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice-Hall.

Bandura, A., Caprara, G. V., Barbaranelli, C., Regalia, C., & Scabini, E. (2011). Impact of family efficacy beliefs on quality of family functioning and satisfaction with family life. *Applied Psychology*, *60*(3), 421–448. https://doi.org/10.1111/j.1464-0597.2010.00442.x

Barroso, N. E., Hungerford, G. M., Garcia, D., Graziano, P. A., & Bagner, D. M. (2016). Psychometric properties of the Parenting Stress Index-Short Form (PSI-SF) in a high-risk sample of mothers and their infants. *Psychological Assessment*, *28*(10), 1331–1335. https://doi.org/10.1037/pas0000257

Barroso, N. E., Mendez, L., Graziano, P. A., & Bagner, D. M. (2018). Parenting Stress through the lens of different clinical groups: A systematic review & meta-analysis. *Journal of Abnormal Child Psychology*, *46*(3), 449–461. https://doi.org/10.1007/s10802-017-0313-6

Beauducel, A., & Herzberg, P. Y. (2006). On the performance of maximum likelihood versus means and variance adjusted weighted least squares estimation in CFA. *Structural Equation Modeling*, *13*(2), 186–203. https://doi.org/10.1207/s15328007sem1302_2

Behrendt, H. F., Scharke, W., Herpertz-Dahlmann, B., Konrad, K., & Firk, C. (2019). Like mother, like child? Maternal determinants of children's early social-emotional

development. *Infant Mental Health Journal*, *40*(2), 234–247. https://doi.org/10.1002/imhj.21765

Belsky, J. (1986). Transition to parenthood. *Medical Aspects of Human Sexuality*, *20*(9), 56–59.

BeLue, R., Halgunseth, L. C., Abiero, B., & Bediako, P. (2015). Maternal health status and parenting stress in low-income, ethnic-minority mothers of children with conduct disorder problems: The role of daily parenting hassles. *Journal of Racial and Ethnic Health Disparities*, *2*(4), 501–509. https://doi.org/10.1007/s40615-015-0098-7

Biggs, A., Brough, P., & Drummond, S. (2017). Lazarus and Folkman's psychological stress and coping theory. In C.L. Cooper & J.C. Quick (Eds.), *The handbook of stress and health: A guide to research and practice* (pp. 351-364). Wiley Blackwell.

Bjørk, R. F., Bølstad, E., Pons, F., & Havighurst, S. S. (2022). Testing TIK (Tuning in to Kids) with TEC (Test of Emotion Comprehension): Does enhanced emotion socialization improve child emotion understanding? *Journal of Applied Developmental Psychology*, *78*, 1-12. https://doi.org/10.1016/j.appdev.2021.101368

Blair, B. L., Perry, N. B., Brien, M. O., Calkins, S. D., Keane, S. P., & Shanahan, L. (2014). Friendship quality in middle childhood. *Developmental Psychology*, *50*(2), 566–576. https://doi.org/10.1037/a0033532.The

Bogenschneider, K., Small, S. A., & Tsay, J. C. (2006). Child, parent, and contextual influences on perceived parenting competence among parents of adolescents. *Journal of Marriage and the Family*, *59*(2), 345. https://doi.org/10.2307/353475

Bor, W., & Sanders, M. R. (2004). Correlates of self-reported coercive parenting of preschool-aged children at high risk for the development of conduct problems. *Australian and New*

Zealand Journal of Psychiatry, *38*(9), 738–745. https://doi.org/10.1111/j.1440-1614.2004.01452.x

Brown, G. L., Craig, A. B., & Halberstadt, A. G. (2015). Parent gender differences in emotion socialization behaviors vary by ethnicity and child gender. *Parenting*, 15(3), 135–157. https://doi.org/10.1080/15295192.2015.1053312

Brown, T. (2015). *Confirmatory factor analysis for applied research*. (2nd ed.). The Guildford Press. https://doi.org/10.1198/tas.2008.s98

Burgdorf, V., Szabó, M., & Abbott, M. J. (2019). The effect of mindfulness interventions for parents on parenting stress and youth psychological outcomes: A systematic review and meta-analysis. *Frontiers in Psychology*, *10*(June). https://doi.org/10.3389/fpsyg.2019.01336

Camisasca, E., Miragoli, S., & Di Blasio, P. (2019). Children's triangulation during inter-parental conflict: Which role for maternal and paternal parenting stress? Jour*nal of Child and Family Studies*, *28*(6), 1623–1634. https://doi.org/10.1007/s10826-019-01380-1

Casey, B. J., Jones, R. M., Levita, L., Libby, V., Pattwell, S. S., Ruberry, E. J., Soliman, F., & Somerville, L. H. (2010). The storm and stress of adolescence: Insights from human imaging and mouse genetics. *Developmental Psychobiology*, *52*(3), 225–235. https://doi.org/10.1002/dev.20447

Cassano, M. C., & Zeman, J. L. (2010). Parental socialization of sadness regulation in middle childhood: the role of expectations and gender. *Developmental Psychology*, *46*(5), 1214–1226. https://doi.org/10.1037/a0019851

Cassano, M., Perry-Parrish, C., & Zeman, J. (2007). Influence of gender on parental socialization of children's sadness regulation. *Social Development*, *16*(2), 210–231. https://doi.org/10.1111/j.1467-9507.2007.00381.x

Castel, S., Beunard, A., Creveuil, C., Blaizot, X., Proia, N., & Guillois, B. (2016). Effects of an intervention program on maternal and paternal parenting stress after preterm birth: A randomized trial. *Early Human Development*, *103*, 17–25. https://doi.org/10.1016/j.earlhumdev.2016.05.007

Castro, V. L., Halberstadt, A. G., & Garrett-Peters, P. T. (2017). Changing tides: Mothers' supportive emotion socialization relates negatively to third-grade children's social adjustment in school. *Social Development*, *27*(3), 510–525. https://doi.org/10.1111/sode.12251

Cater, M., & Machtmes, K. (2008). Informed decision-making in exploratory factor analysis. *Journal of Youth Development*, *3*(3), 170–177. https://doi.org/10.5195/jyd.2008.296

Chang, H. T., Liu, Y. L., & Kuo, C. S. (2021). The relationships among maternal meta-emotion philosophy, maternal video-mediated cognitions, and adolescent behavior adjustment in Taiwan. *Child Psychiatry and Human Development*. https://doi.org/10.1007/s10578-021-01283-7

Chang, L., Schwartz, D., Dodge, K. a, & McBride-Chang, C. (2003). Harsh parenting in relation to child emotion regulation and aggression. *Journal of Family Psychology*, *17*(4), 598–606. https://doi.org/10.1037/0893-3200.17.4.598

Chaplin, T., Casey, J., Sinha, R., & Mayes, L. C. (2010). Gender differences in caregiver emotion socialization of low-income toddlers. *New Directions for Child and Adolescent Development* (Vol. 128, pp. 11–27). https://doi.org/10.1002/cd

Chen, F. M., & Luster, T. (2002). Factors related to parenting practices in Taiwan. *Early Child Development and Care*, *172*(5), 413–430. https://doi.org/10.1080/03004430214549

Cho, B., Woods-Jaeger, B., & Borelli, J. L. (2021). Parenting stress moderates the relation between parental trauma exposure and child anxiety symptoms. *Child Psychiatry and Human Development*, *52*(6), 1050–1059. https://doi.org/10.1007/s10578-020-01087-1

Christensen, L. B., Johnson, B., & Turner, L. A. (2011). *Research methods, design, and analysis* (12th eds.). Pearson Education Limited.

Chronis-Tuscano, A., Bui, H. N. T., & Lorenzo, N. E. (2022). Transdiagnostic implications of parental socialization of child and adolescent emotional development: Commentary and future directions. *Research on Child and Adolescent Psychopathology*, *50*(2), 269–282. https://doi.org/10.1007/s10802-021-00872-3

Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112, 155-159.

Coleman, P. K., & Karraker, K. H. (1998). Self-efficacy and parenting quality: Findings and future applications. *Developmental Review*, *18*(1), 47–85. https://doi.org/10.1006/drev.1997.0448

Costello, A. B., & Osborne, J. W. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical Assessment, Research and Evaluation*, *10*(7). https://doi.org/10.7275/jyj1-4868

Cousino, M. K., & Hazen, R. A. (2013). Parenting stress among caregivers of children with chronic illness: A systematic review. *Journal of Pediatric Psychology*, *38*(8), 809–828. https://doi.org/10.1093/jpepsy/jst049

Crnic, K. A., & Booth, C. L. (1991). Mothers' and fathers' perceptions of daily hassles of parenting across early childhood. *Journal of Marriage and the Family*, *53*(4), 1042. https://doi.org/10.2307/353007

Crnic, K. A., & Greenberg, M. T. (1990). Minor parenting stresses with young children. *Child Development*, *61*(5), 1628–1637.

Crnic, K. A., & Low, C. (2002). Everyday stresses and parenting. In M. H. Bornstein (Ed.), *Handbook of Parenting: Volume 5 Practical Issues in Parenting* (2nd ed., pp. 243-267). Lawrence Erlbaum Associates. https://doi.org/10.1038/clpt.1994.88

Crnic, K. A., Gaze, C., & Hoffman, C. (2005). Cumulative parenting stress across the preschool period: relations to maternal parenting and child behaviour at age 5. *Infant and Child Development*, *14*, 117–132. https://doi.org/10.1002/icd

Crnic, K., & Ross, E. (2017). Parenting stress and parental efficacy. In K. Deater-Deckard & R.K. Panneton (Eds.), *Parental stress and early child development* (pp. 263-284). Springer.

Darling, N., & Steinberg, L. (1993). Parenting style as context: An integrative model. *Psychological Bulletin*, *113*(3), 487–496. https://doi.org/10.1037/0033-2909.113.3.487

Daundasekara, S. S., Beauchamp, J. E. S., & Hernandez, D. C. (2021). Parenting stress mediates the longitudinal effect of maternal depression on child anxiety/depressive symptoms. *Journal of Affective Disorders*, *295*(May), 33–39. https://doi.org/10.1016/j.jad.2021.08.002

De Clercq, L. E., Prinzie, P., Warreyn, P., Soenens, B., Dieleman, L. M., & De Pauw, S. S. W. (2021). Expressed emotion in families of children with and without autism spectrum disorder, cerebral palsy and down syndrome: Relations with parenting stress and

parenting behaviors. *Journal of Autism and Developmental Disorders*, *52*, 1789-1806. https://doi.org/10.1007/s10803-021-05075-9

De Vaus, D. (2001). Research design in social research. SAGE Publications.

Deater-Deckard, K. (1998). Parenting stress and child adjustment: Some old hypotheses and new questions. *Clinical Psychology: Science and Practice*, *5*(3), 314–332. https://doi.org/10.1111/j.1468-2850.1998.tb00152.x

Deater-Deckard, K. (2004). *Parenting stress*. Yale University Press.

Deater-Deckard, K., & Panneton, R. (2017). *Parental stress and early child development: Adaptive and maladaptive outcomes*. Springer International Publishing. https://doi.org/10.1007/978-3-319-55376-4

Denham, S. A., & Kochanoff, A. T. (2002). Parental contributions to preschoolers' understanding of emotion. *Marriage & Family Review*, *34*(3–4), 311–343. https://doi.org/10.1300/J002v34n03

Denham, S. A., Bassett, H. H., & Wyatt, T. (2007). The Socialization of Emotional Competence. In J. E. Grusec & P. D. Hastings (Eds.), *Handbook of socialization: Theory and research* (pp. 614–637). The Guilford Press.

Denham, S. A., Bassett, H. H., & Wyatt, T. (2015). The Socialization of Emotional Competence. In J. E. Grusec & P. D. Hastings (Eds.), *Handbook of socialization: Theory and research* (2nd ed., pp. 614–637). The Guilford Press.

Denham, S. A., Workman, E., Cole, P. M., Weissbrod, C., Kendziora, K. T., & Zahn-waxler, C. (2000). Prediction of externalizing behavior problems from early to middle childhood: the role of parental socialization and emotion expression. *Development and Psychopathology*, *12*(1), 23–45. http://www.ncbi.nlm.nih.gov/pubmed/10774594

Diener, M. L., & Swedin, M. N. (2020). Parenting stress. In S. H. Hupp and J. D. Jewell (Eds.), *The Encyclopedia of Child and Adolescent Development* (pp. 1–11). John Wiley & Sons. https://doi.org/10.1002/9781119171492.wecad206

Du, X., & Kim, Y. K. (2021). Direct and indirect associations between family residential mobility, parent functioning, and adolescent behavioral health. *Journal of Child and Family Studies*, *30*(12), 3055–3069. https://doi.org/10.1007/s10826-021-02129-5

Dumas, J. E., Wolf, L. C., Fisman, S. N., & Culligan, A. (1991). Parenting stress, child behavior problems, and dysphoria in parents of children with autism, down syndrome, behavior disorders, and normal development. *Exceptionality*, *2*(2), 97–110. https://doi.org/10.1080/09362839109524770

Dunn, T. J., Baguley, T., & Brunsden, V. (2014). From alpha to omega: A practical solution to the pervasive problem of internal consistency estimation. *British Journal of Psychology*, *105*(3), 399–412. https://doi.org/10.1111/bjop.12046

Eisenberg, N. (2020). Findings, issues, and new directions for research on emotion socialization. *Developmental Psychology*, 56(3), 664–670. https://doi.org/10.1037/dev0000906

Eisenberg, N., Cumberland, A., & Spinrad, T. L. (1998). Parental socialization of emotion. *Psychological Inquiry*, *9*(4), 241–273.

Eisenberg, N., Gershoff, E. T., Fabes, R. A., Shepard, S. A., Cumberland, A., Losoya, S. H., Guthrie, I. K., & Murhpy, B. C. (2001). Mothers' emotional expressivity and children's behaviour problems and social competence: mediation through children's regulation. *Developmental Psychology*, *37*(4), 475–490.

Eisenberg, N., Valiente, C., Morris, A. S., Fabes, R. A., Cumberland, A., Reiser, M., … Losoya, S. (2003). Longitudinal relations among parental emotional expressivity, children's

regulation, and quality of socioemotional functioning. *Developmental Psychology*, *39*(1), 3–19. https://doi.org/10.1037/0012-1649.39.1.3

Ellis, B. H., Alisic, E., Reiss, A., Dishion, T., & Fisher, P. A. (2014). Emotion regulation among preschoolers on a continuum of risk: The role of maternal emotion coaching. *Journal of child and family studies*, *23*(6), 965-974.

England-Mason, G., & Gonzalez, A. (2020). Intervening to shape children's emotion regulation: A review of emotion socialization parenting programs for young children. *Emotion*, *20*(1), 98–104. https://doi.org/10.1037/emo0000638

Fabes, R. A., Poulin, R. E., Eisenberg, N., & Madden-Derdich, D. A. (2002). The Coping with Children's Negative Emotions Scale (CNNES): Psychometric properties and relations with children's emotional competence. *Marriage & Family Review*, *34*(3–4), 285–310. https://doi.org/10.1300/J002v34n03

Farmer, A. Y., & Lee, S. K. (2011). The effects of parenting stress, perceived mastery, and maternal depression on parent-child interaction. *Journal of Social Service Research*, *37*(5), 516–525. https://doi.org/10.1080/01488376.2011.607367

Field, A. (2009). *Discovering Statistics Using SPSS* (Third ed.). SAGE Publications.

Fiorilli, C., De Stasio, S., Di Chicchio, C., & Chan, S. M. (2015). Emotion socialization practices in Italian and Hong Kong-Chinese mothers. *SpringerPlus, 4*(1), 1–9. https://doi.org/10.1186/s40064-015-1550-1

Fishman, J. L., Raval, V. V., Daga, S. S., & Raj, S. P. (2014). Meta-emotion philosophy among Asian Indian immigrant mothers in the United States. *Qualitative Health Research*, *24*(7), 875–889. https://doi.org/10.1177/1049732314537403

Fivush, R., Brotman, M. A., Buckner, J. P., & Goodman, S. H. (2000). Gender differences in parent – child emotion narratives. *Sex Roles*, *42*, 233–253.

Forero, C. G., Maydeu-Olivares, A., & Gallardo-Pujol, D. (2009). Factor analysis with ordinal indicators: A monte carlo study comparing DWLS and ULS estimation. *Structural Equation Modeling: A Multidisciplinary Journal*, *16*(4), 625–641. https://doi.org/10.1080/10705510903203573

Fosco, G. M., & Grych, J. H. (2007). Emotional expression in the family as a context for children's appraisals of interparental conflict. *Journal of Family Psychology*, *21*(2), 248–258. https://doi.org/10.1037/0893-3200.21.2.248

Frankel, L. A., Umemura, T., Jacobvitz, D., & Hazen, N. (2015). Marital conflict and parental responses to infant negative emotions: Relations with toddler emotional regulation. *Infant Behavior and Development*, *40*, 73–83. https://doi.org/10.1016/j.infbeh.2015.03.004

Fung, W. K., Chung, K. K. H., & Lam, C. B. (2021). Parental self-efficacy: Examining its mediating and reciprocally predictive roles in supportive emotion socialization. *Family Process*, 1–13. https://doi.org/10.1111/famp.12688

Gadermann, A. C., Thomson, K. C., Richardson, C. G., Gagné, M., Mcauliffe, C., Hirani, S., & Jenkins, E. (2021). Examining the impacts of the COVID-19 pandemic on family mental health in Canada: findings from a national cross-sectional study. *BMJ Open*, *11*(1), 1–11. https://doi.org/10.1136/bmjopen-2020-042871

Gelfand, D. M., Teti, D. M., & Radin Fox, C. E. (1992). Sources of parenting stress for depressed and nondepressed mothers of infants. *Journal of Clinical Child Psychology*, *21*(3), 262–272. https://doi.org/10.1207/s15374424jccp2103_8

Gentzler, A. L., Contreras-Grau, J. M., Kerns, K. A., & Weimer, B. L. (2005). Parent-child emotional communication and children's coping in middle childhood. *Social Development*, *14*(4), 591–612. https://doi.org/10.1111/j.1467-9507.2005.00319.x

Gerstein, E. D., Crnic, K. A., Blacher, J., & Baker, B. L. (2009). Resilience and the course of daily parenting stress in families of young children with intellectual disabilities. *Journal of Intellectual Disability Research*, *53*(12), 981–997. https://doi.org/10.1111/j.1365-2788.2009.01220.x

Giallo, R., D'Esposito, F., Cooklin, A., Mensah, F., Lucas, N., Wade, C., & Nicholson, J. M. (2013). Psychosocial risk factors associated with fathers' mental health in the postnatal period: Results from a population-based study. *Social Psychiatry and Psychiatric Epidemiology*, *48*(4), 563–573. https://doi.org/10.1007/s00127-012-0568-8

Girabent-Farrés, M., Jimenez-Gónzalez, A., Romero-Galisteo, R. P., Amor-Barbosa, M., & Bagur-Calafat, C. (2021). Effects of early intervention on parenting stress after preterm birth: A meta-analysis. *Child Care, Health and Development*, *47*(3), 400–410. https://doi.org/10.1111/cch.12853

Glatz, T., & Buchanan, C. M. (2015). Over-time associations among parental self-efficacy, promotive parenting practices, and adolescents' externalizing behaviors. *Journal of Family Psychology*, *29*(3), 427–437. https://doi.org/10.1037/fam0000076

Glatz, T., & Buchanan, C. M. (2021). Trends in parental self-efficacy between 1999 and 2014. *Journal of Family Studies*, 0(0), 1–16. https://doi.org/10.1080/13229400.2021.1906929

Glatz, T., & Trifan, T. A. (2019). Examination of parental self-efficacy and their beliefs about the outcomes of their parenting practices. *Journal of Family Issues*, *40*(10), 1321-1345.

Goodwin, C. J. (2010). *Research methods in psychology: Methods and design* (6th ed.). John Wiley & Sons.

Gottman, J. M., Katz, L. F., & Hooven, C. (1996). Parental meta-emotion philosophy and the emotional life of families: Theoretical models and preliminary data. *Journal of Family Psychology*, *10*(3), 243–268. https://doi.org/10.1037//0893-3200.10.3.243

Grusec, J. E., & Hastings, P. D. (2015). *Handbook of socialization: Theory and research* (2nd ed.). The Guilford Press. https://doi.org/10.1017/CBO9781107415324.004

Gülseven, Z., Carlo, G., Streit, C., Kumru, A., Selçuk, B., & Sayıl, M. (2018). Longitudinal relations among parenting daily hassles, child rearing, and prosocial and aggressive behaviors in Turkish children. *Social Development*, *27*(1), 45–57. https://doi.org/10.1111/sode.12247

Gupta, V. B. (2007). Comparison of parenting stress in different developmental disabilities. *Journal of Developmental and Physical Disabilities*, *19*(4), 417–425. https://doi.org/10.1007/s10882-007-9060-x

Guthrie, I. K., Shepard, S. A., Murphy, B. C., Losoya, S. H., Gershoff, E. T., Cumberland, A. J., Eisenberg, N., & Fabes, R. A. (2005). Mother's emotional expressivity and children's behavior problems and social competence: Mediation through children's regulation. *Developmental Psychology*, 37(4), 475–490. https://doi.org/10.1037/0012-1649.37.4.475

Hajal, N. J., & Paley, B. (2020). Parental emotion and emotion regulation: A critical target of study for research and intervention to promote child emotion socialization. *Developmental Psychology*, *56*(3), 403–417. https://doi.org/10.1037/dev0000864

Halberstadt, A. G., Cassidy, J., Stifter, C. A., Parke, R. D., & Fox, N. A. (1995). Self-expressiveness within the family context: Psychometric support for a new measure. *Psychological Assessment*, *7*(1), 93–103. https://doi.org/10.1037/1040-3590.7.1.93

Halberstadt, A. G., Crisp, V. W., & Eaton, K. (1999). Family expressiveness: A retrospective and new directions for research. In P. Philippot, R. S. Feldman, & E. J. Coats (Eds.), Th*e social context of nonverbal behavior* (pp. 109–155). Cambridge University Press

Halme, N., Tarkka, M. T., Nummi, T., & Åstedt-Kurki, P. (2006). The effect of parenting stress on fathers' Availability and engagement. *Child Care in Practice*, *12*(1), 13–26. https://doi.org/10.1080/13575270500526220

Han, Z. R., Qian, J., Gao, M., & Dong, J. (2015). Emotion socialization mechanisms linking Chinese fathers', mothers', and children's emotion regulation: A moderated mediation model. *Journal of Child and Family Studies*, *24*(12), 3570–3579. https://doi.org/10.1007/s10826-015-0158-y

Hancock, G. R., & Mueller, R. O. (Eds.). (2010). *The reviewer's guide to quantitative methods in the social sciences*. Routledge.

Harris, P. A., Taylor, R., Thielke, R., Payne, J., Gonzalez, N., & Conde, J. G. (2009). Research electronic data capture (REDCap): A metadata-driven methodology and workflow process for providing translational research informatics support. *Journal of Biomedical Informatics*, *42*(2), 377–381. https://doi.org/10.1016/j.jbi.2008.08.010

Havighurst S., Kehoe C. (2017) The role of parental emotion regulation in parent emotion socialization: Implications for intervention. In: Deater-Deckard K., Panneton R. (Eds.) *Parental stress and early child development*. Springer. https://doi-org.login.ezproxy.library.ualberta.ca/10.1007/978-3-319-55376-4_12

Havighurst, S. S., Kehoe, C. E., Harley, A. E., Radovini, A., & Thomas, R. (2022). A randomized controlled trial of an emotion socialization parenting program and its impact on parenting, children's behavior and parent and child stress cortisol: Tuning in to Toddlers. *Behaviour Research and Therapy*, *149,* 104016. https://doi.org/10.1016/j.brat.2021.104016

Hayes, S. A., & Watson, S. L. (2013). The impact of parenting stress: A meta-analysis of studies comparing the experience of parenting stress in parents of children with and without autism spectrum disorder. *Journal of Autism and Developmental Disorders*, *43*(3), 629–642. https://doi.org/10.1007/s10803-012-1604-y

Hayton, J. C., Allen, D. G., & Scarpello, V. (2004). Factor retention decisions in exploratory factor analysis: A tutorial on parallel analysis. *Organizational Research Methods*, *7*(2), 191–205. https://doi.org/10.1177/1094428104263675

Heckman, J. J. (1979). Sample selection bias as a specification error. *Econometrica*, *47*(1), 153–161.

Hogarty, K. Y., Hines, C. V., Kromrey, J. D., Perron, J. M., & Mumford, A. K. R. (2005). The quality of factor solutions in exploratory factor analysis: The influence of sample size, communality, and overdetermination. *Educational and Psychological Measurement*, *65*(2), 202–226. https://doi.org/10.1177/0013164404267287

Holly, L. E., Fenley, A. R., Kritikos, T. K., Merson, R. A., Abidin, R. R., & Langer, D. A. (2019). Evidence-Base Update for Parenting Stress Measures in Clinical Samples. *Journal of Clinical Child and Adolescent Psychology*, *48*(5), 685–705. https://doi.org/10.1080/15374416.2019.1639515

Holly, L. E., Fenley, A. R., Kritikos, T. K., Merson, R. A., Abidin, R. R., & Langer, D. A. (2019). Evidence-base update for parenting stress measures in clinical samples. *Journal of Clinical Child and Adolescent Psychology*, *48*(5), 685–705. https://doi.org/10.1080/15374416.2019.1639515

Hooper, E. G., Wu, Q., Ku, S., Gerhardt, M., & Feng, X. (2018). Maternal emotion socialization and child outcomes among African Americans and European Americans. *Journal of Child and Family Studies*, *27*(6), 1870–1880. https://doi.org/10.1007/s10826-018-1020-9

Hooper, E., Feng, X., Christian, L., & Slesnick, N. (2015). Emotion expression, emotionality, depressive symptoms, and stress: Maternal profiles related to child outcomes. *Journal of Abnormal Child Psychology*, *43*(7), 1319–1331. https://doi.org/10.1007/s10802-015-0019-6

Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, *6*(1), 1–55. https://doi.org/10.1080/10705519909540118

Huizink, A. C., Menting, B., De Moor, M. H. M., Verhage, M. L., Kunseler, F. C., Schuengel, C., & Oosterman, M. (2017). From prenatal anxiety to parenting stress: A longitudinal study. *Archives of Women's Mental Health*, *20*(5), 663–672. https://doi.org/10.1007/s00737-017-0746-5

Hurrell, K. E., Houwing, F. L., & Hudson, J. L. (2017). Parental meta-emotion philosophy and emotion coaching in families of children and adolescents with an anxiety disorder. *Journal of Abnormal Child Psychology*, *45*(3), 569–582. https://doi.org/10.1007/s10802-016-0180-6

Hurrell, K. E., Hudson, J. L., & Schniering, C. A. (2015). Parental reactions to children's negative emotions: Relationships with emotion regulation in children with an anxiety disorder. *Journal of Anxiety Disorders*, *29*, 72-82. https://doi.org/10.1016/j.janxdis.2014.10.008

Hutcheson, G., & Sofroniou, N. (1999). *The multivariate social scientist: Introductory statistics using generalized linear models*. SAGE Publications.

Johnson, A. M., Hawes, D. J., Eisenberg, N., Kohlhoff, J., & Dudeney, J. (2017). Emotion socialization and child conduct problems: A comprehensive review and meta-analysis. *Clinical Psychology Review*, *54*(September 2016), 65–80. https://doi.org/10.1016/j.cpr.2017.04.001

Johnson, B. D., Berdhal, L. D., Horne, M., Richter, E. A., & Walters, M. (2014). A parenting competency model. *Parenting Science and Practice*, *14*(2), 92–120. https://doi.org/10.1080/15295192.2014.914361

Johnston, C., & Mash, E. J. (1989). A measure of parenting satisfaction and efficacy. *Journal of Clinical Child Psychology*, *18*(2), 167–175. https://doi.org/10.1207/s15374424jccp1802

Jones, T. L., & Prinz, R. J. (2005). Potential roles of parental self-efficacy in parent and child adjustment: A review. *Clinical Psychology Review*, *25*(3), 341–363. https://doi.org/10.1016/j.cpr.2004.12.004

Kalkbrenner, M. T. (2021). Alpha, Omega, and H Internal consistency reliability estimates: Reviewing these options and when to use them. *Counseling Outcome Research and Evaluation*, 1–12. https://doi.org/10.1080/21501378.2021.1940118

Katz, L. F., Maliken, A. C., & Stettler, N. M. (2012). Parental meta-emotion philosophy: A review of research and theoretical framework. *Child Development Perspectives*, *6*(4), 417–422. https://doi.org/10.1111/j.1750-8606.2012.00244.x

Kehoe, C. E., Havighurst, S. S., & Harley, A. E. (2020). Tuning in to Teens: Investigating moderators of program effects and mechanisms of change of an emotion focused group parenting program. *Developmental Psychology*, *56*(3), 623–637. https://doi.org/10.1037/dev0000875

Klimes-Dougan, B., & Zeman, J. (2007). Introduction to the special Issue of social development: Emotion socialization in childhood and adolescence. *Social Development*, *16*(2), 203–209. https://doi.org/10.1111/j.1467-9507.2007.00380.x

Klimes-Dougan, B., Brand, A. E., Zahn-Waxler, C., Usher, B., Hastings, P. D., Kendziora, K., & Garside, R. B. (2007). Parental emotion socialization in adolescence: Differences in sex, age and problem status. *Social Development*, *16*(2), 326–342. https://doi.org/10.1111/j.1467-9507.2007.00387.x

Kline, R. B. (2016). *Principles and practices of structural equation modeling* (4th ed.). The Guilford Press.

Lagacé-Séguin, D. G., & d'Entremont, M. L. (2006). The role of child negative affect in the relations between parenting styles and play. *Early Child Development and Care*, *176*, 461–477. https://doi.org/10.1080/03004430500039960

Lazarus, R. S., & Folkman, S. (1984). Stress, appraisal, and coping. Springer publishing company.

Lee, T. H., Miernicki, M. E., & Telzer, E. H. (2017). Families that fire together smile together: Resting state connectome similarity and daily emotional synchrony in parent-child dyads.

NeuroImage, *152*(October 2016), 31–37. https://doi.org/10.1016/j.neuroimage.2017.02.078

Leerkes, E. M., Supple, A. J., Su, J., & Cavanaugh, A. M. (2013). Links between remembered childhood emotion socialization and adult adjustment. *Journal of Family Issues*, *36*(13), 1854–1877. https://doi.org/10.1177/0192513x13505567

Li, C. H. (2016). Confirmatory factor analysis with ordinal data: Comparing robust maximum likelihood and diagonally weighted least squares. *Behavior Research Methods*, *48*(3), 936–949. https://doi.org/10.3758/s13428-015-0619-7

Li, Y., Wen, Z., Hau, K. T., Yuan, K. H., & Peng, Y. (2020). Effects of Cross-loadings on determining the number of factors to retain. *Structural Equation Modeling*, *27*(6), 841–863. https://doi.org/10.1080/10705511.2020.1745075

Lin, X., Zhang, Y., Chi, P., Ding, W., Heath, M. A., Fang, X., & Xu, S. (2017). The mutual effect of marital quality and parenting stress on child and parent depressive symptoms in families of children with oppositional defiant disorder. *Frontiers in Psychology*, *8*, 1810. https://doi.org/10.3389/fpsyg.2017.01810

Losh, S. C. (2010). Sampling error. In N. Salkind (Ed.), *Encyclopedia of Research Design: Qualitative Research* (pp. 1159–1164). SAGE Publications. https://doi.org/10.4135/9781412961288

Lozada, F. T., & Brown, D. W. (2020). Emotion Socialization in the Family. *The Encyclopedia of Child and Adolescent Development*, 1–12. https://doi.org/10.1002/9781119171492.wecad183

Lunkenheimer, E. S., Shields, A. M., & Cortina, K. S. (2007). Parental emotion coaching and dismissing in family interaction. *Social Development*, *16*(2), 232–248. https://doi.org/10.1111/j.1467-9507.2007.00382.x

MacCallum, R. C., Widaman, K. F., Zhang, S., & Hong, S. (1999). Sample size in factor analysis. *Psychological Methods*, *4*(1), 84–99. https://doi.org/10.1037/1082-989X.4.1.84

Mackler, J. S., Kelleher, R. T., Shanahan, L., Calkins, S. D., & Keane, S. P. (2015). Parenting stress, parental reactions, and externalizing behavior from ages 4 to 10. *Journal of Marriage and Family*, *77*(2), 388–406. https://doi.org/10.1111/jomf.12163.Parenting

Mak, M. C. K., Yin, L., Li, M., Cheung, R. Y. hin, & Oon, P. T. (2020). The relation between parenting stress and child behavior problems: negative parenting styles as mediator. *Journal of Child and Family Studies*, *29*(11), 2993–3003. https://doi.org/10.1007/s10826-020-01785-3

Marsh, H. W. (1998). Pairwise deletion for missing data in structural equation models: Nonpositive definite matrices, parameter estimates, goodness of fit, and adjusted sample sizes. *Structural Equation Modeling*, *5*(1), 22–36. https://doi.org/10.1080/10705519809540087

Mazur, E. (2006). Biased appraisals of parenting daily hassles among mothers of young children: Predictors of parenting adjustment. *Cognitive Therapy and Research*, *30*(2), 161–175. https://doi.org/10.1007/s10608-006-9031-z

McCord, B. L., & Raval, V. V. (2016). Asian Indian immigrant and white American maternal emotion socialization and child socio-emotional functioning. *Journal of Child and Family Studies*, *25*(2), 464–474. https://doi.org/10.1007/s10826-015-0227-2

McDowell, D. J., Kim, M., O'neil, R., & Parke, D. (2002). Children's emotional regulation and social competence in middle childhood. *Marriage & Family Review*, *34*(3–4), 345–364. https://doi.org/10.1300/J002v34n03

McElwain, N. L., Halberstadt, A. G., & Volling, B. L. (2016). Mother-and-father-reported preditions to children's negative emotions: Relations to young children's emotional understanding and friendship quality. *Child Development*, *78*(5), 1407–1425. https://doi.org/10.1093/mp/ssr073

McQuade, J. D., & Breaux, R. P. (2017). Parent emotion socialization and pre-adolescent's social and emotional adjustment: Moderating effects of autonomic nervous system reactivity. *Biological Psychology*, *130*(October), 67–76. https://doi.org/10.1016/j.biopsycho.2017.10.007

Medina, N. Y., Edwards, R. C., Zhang, Y., & Hans, S. L. (2022). A longitudinal investigation of young mothers' prenatal attachment, depressive symptoms, and early parenting behaviour. *Journal of Reproductive and Infant Psychology*, *40*(2), 196-211.

Meyer, S., Raikes, H. A., Virmani, E., Waters, S., & Thompson, R. A. (2014). Parent emotion representations and the socialization of emotion regulation in the family. *International Journal of Behavioral Development*, *38*(2), 164–173. https://doi.org/10.1177/0165025413519014

Michalik, N. M., Eisenberg, N., Spinrad, T. L., Ladd, B., Thompson, M., & Valiente, C. (2007). Longitudinal relations among parental emotional expressivity and sympathy and prosocial behavior in adolescence. *Social Development*, *16*(2), 286–309. https://doi.org/10.1111/j.1467-9507.2007.00385.x

Miller-Slough, R. L., Dunsmore, J. C., Zeman, J. L., Sanders, W. M., & Poon, J. A. (2018). Maternal and paternal reactions to child sadness predict children's psychosocial outcomes: A family-centered approach. *Social Development*, *27*(3), 495–509. https://doi.org/10.1111/sode.12244

Mirabile, S. P. (2015). Ignoring children's emotions: A novel ignoring subscale for the Coping with Children's Negative Emotions Scale. *European Journal of Developmental Psychology*, *12*(4), 459–471. https://doi.org/10.1080/17405629.2015.1037735

Mirabile, S. P., Oertwig, D., & Halberstadt, A. G. (2018). Parent emotion socialization and children's socioemotional adjustment: When is supportiveness no longer supportive? *Social Development*, *27*(3), 466–481. https://doi.org/10.1111/sode.12226

Miragoli, S., Balzarotti, S., Camisasca, E., & Di Blasio, P. (2018). Parents' perception of child behavior, parenting stress, and child abuse potential: Individual and partner influences. *Child Abuse and Neglect*, *84*(August), 146–156. https://doi.org/10.1016/j.chiabu.2018.07.034

Moed, A., Dix, T., Anderson, E. R., & Greene, S. M. (2017). Expressing negative emotions to children: Mothers' aversion sensitivity and children's adjustment. *Journal of Family Psychology*, *31*(2), 224–233. https://doi.org/10.1037/fam0000239

Moore, C. G., Probst, J. C., Tompkins, M., Cuffe, S., & Martin, A. B. (2007). The prevalence of violent disagreements in US families: Effects of residence, race/ethnicity, and parental stress. *Pediatrics*, 119. https://doi.org/10.1542/peds.2006-2089K

Morelen, D., & Suveg, C. (2012). A real-time analysis of parent-child emotion discussions: The interaction is reciprocal. *Journal of Family Psychology*, *26*(6), 998–1003. https://doi.org/10.1037/a0030148

Morey, J. N., & Gentzler, A. L. (2017). Parents' perceptions of and responses to children's emotions: Relations with meta-emotion philosophy and adult attachment. *Parenting*, *17*(2), 73–103. https://doi.org/10.1080/15295192.2017.1304782

Morris, A. S., Silk, J. S., Morris, M. D. S., Steinberg, L., Aucoin, K. J., & Keyes, A. W. (2011). The influence of mother-child emotion regulation strategies on children's expression of anger and sadness. *Developmental Psychology*, *47*(1), 213–225. https://doi.org/10.1037/a0021021

Morrow, K. E., Gentzler, A. L., Wilson, T. K., Romm, K. F., & Root, A. E. (2021). Maternal depression and socialization of children's positive affect regulation. *Journal of Child and Family Studies*, *30*(10), 2413–2426. https://doi.org/10.1007/s10826-021-02045-8

Muthén, L.K. and Muthén, B.O. (1998-2017). *Mplus user's guide* (8th ed,). Muthén & Muthén

Neece, C. L., Green, S. A., & Baker, B. L. (2012). Parenting stress and child behavior problems: A transactional relationship across time. *American Journal on Intellectual and Developmental Disabilities*, *117*(1), 48–66. https://doi.org/10.1352/1944-7558-117.1.48

Nelson, J. A., Brien, M. O., & Keane, S. P. (2010). Family stress and parental response to children's negative emotions. *Journal of Family Psychology*, *23*(5), 671–679. https://doi.org/10.1037/a0015977.Family

Nelson, J. A., Brien, M. O., & Keane, S. P. (2010). Family stress and parental response to children's negative emotions. *Journal of Family Psychology*, *23*(5), 671–679. https://doi.org/10.1037/a0015977.Family

Nelson, J. A., Perry, N. B., O'Brien, M., Calkins, S. D., Keane, S. P., & Shanahan, L. (2016). Mothers' and fathers' reports of their supportive responses to their children's negative

emotions over time. *Parenting*, *16*(1), 56–62. https://doi.org/10.1080/15295192.2016.1116895

Ohan, J. L., Leung, D. W., & Johnston, C. (2000). The parenting sense of competence scale: Evidence of a stable factor structure and validity. *Canadian Journal of Behavioural Science*, *32*(4), 251–261. https://doi.org/10.1037/h0087122

Östberg, M., & Hagekull, B. (2000). A structural modeling approach to the understanding of parenting stress. *Journal of Clinical Child Psychology*, *29*(4), 615–625. https://doi.org/10.1207/S15374424JCCP2904

Pereira, J., Vickers, K., Atkinson, L., Gonzalez, A., Wekerle, C., & Levitan, R. (2012). Parenting stress mediates between maternal maltreatment history and maternal sensitivity in a community sample. *Child Abuse and Neglect*, *36*(5), 433–437. https://doi.org/10.1016/j.chiabu.2012.01.006

Platt, R., Williams, S. R., & Ginsburg, G. S. (2016). Stressful life events and child anxiety: Examining parent and child mediators. *Child Psychiatry and Human Development*, *47*(1), 23–34. https://doi.org/10.1007/s10578-015-0540-4

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, *88*(5), 879–903. https://doi.org/10.1037/0021-9010.88.5.879

Pole, J. D., & Bondy, S. J. (2014). Control Variables. In N. Salkind (Ed.), *Encyclopedia of research design* (pp. 253–255). SAGE Publications.

Ponnet, K., Mortelmans, D., Wouters, E., Van Leeuwen, K., Bastaits, K., & Pasteels, I. (2013). Parenting stress and marital relationship as determinants of mothers' and fathers'

parenting. *Personal Relationships*, *20*(2), 259–276. https://doi.org/10.1111/j.1475-6811.2012.01404.x

Ponnet, K., Wouters, E., Mortelmans, D., Pasteels, I., De Backer, C., Van Leeuwen, K., & Van Hiel, A. (2013). The influence of mothers' and fathers' parenting stress and depressive symptoms on own and partner's parent-child communication. *Family Process*, *52*(2), 312–324. https://doi.org/10.1111/famp.12001

Raikes, H. A., & Thompson, R. A. (2006). Family emotional climate, attachment security and young children's emotion knowledge in a high risk sample. *British Journal of Developmental Psychology*, *24*(1), 89–104. https://doi.org/10.1348/026151005X70427

Ramsden, S., & Hubbard, J. (2002). Family expressiveness and parental emotion coaching: Their role in children's emotion regulation and aggression. *Journal of Abnormal Child Psychology*, *30*(6), 657–667. http://link.springer.com/article/10.1023/A:1020819915881

Rauer, A. J., & Volling, B. L. (2005). The role of husbands' and wives' emotional expressivity in the marital relationship. *Sex Roles*, *52*(9–10), 577–587. https://doi.org/10.1007/s11199-005-3726-6

Raval, V. V., & Walker, B. L. (2019). Unpacking 'culture': Caregiver socialization of emotion and child functioning in diverse families. *Developmental Review*, *51*(January), 146–174. https://doi.org/10.1016/j.dr.2018.11.001

Raval, V. V., Raval, P. H., & Deo, N. (2013). Mothers' socialization goals, mothers' emotion socialization behaviors, child emotion regulation, and child socioemotional functioning in urban India. *The Journal of Early Adolescence*, *34*(2), 229–250. https://doi.org/10.1177/0272431613485821

Reitman, D., Currier, R. O., & Stickle, T. R. (2002). A critical evaluation of the parenting stress index-short form (PSI-SF) in a Head Start population. *Journal of Clinical Child and Adolescent Psychology*, *31*(3), 384–392. https://doi.org/10.1207/S15374424JCCP3103_10

Renk, K., Roddenberry, A., Oliveros, A., & Sieger, K. (2007). The relationship of maternal characteristics and perceptions of children to children's emotional and behavioral problems. *Child and Family Behavior Therapy*, *29*(1), 37–57. https://doi.org/10.1300/J019v29n01_03

Roberts, W., & Strayer, J. (2004). Children's anger, emotional expressiveness, and empathy: Relations with parents' empathy, emotional expressiveness, and parenting practices. *Social Development*, *13*(2), 229–254.

Rodriguez, C. M., & Green, A. J. (1997). Parenting stress and anger expression as predictors of child abuse potential. *Child Abuse and Neglect*, *21*(4), 367–377. https://doi.org/10.1016/S0145-2134(96)00177-9

Roger, K. M., Rinaldi, C. M., & Howe, N. (2012). Mothers' and fathers' internal state language with their young children: An examination of gender differences during an emotions task. *Infant and Child Development*, *21*, 646–666. https://doi.org/10.1002/icd

Rogers, M. L., Halberstadt, A. G., Castro, V. L., MacCormack, J. K., & Garrett-Peters, P. (2016). Maternal emotion socialization differentially predicts third-grade children's emotion regulation and lability. *Emotion*, *16*(2), 280–291. https://doi.org/http://dx.doi.org/10.1037/emo0000142

Rominov, H., Giallo, R., & Whelan, T. A. (2016). Fathers' postnatal distress, parenting self-efficacy, later parenting behavior, and children's emotional-behavioral functioning: A

longitudinal study. *Journal of Family Psychology*, *30*(8), 907–917. https://doi.org/10.1037/fam0000216

Russell, B. S., Hutchison, M., Tambling, R., Tomkunas, A. J., & Horton, A. L. (2020). Initial challenges of caregiving during COVID-19: Caregiver burden, mental health, and the parent–child relationship. *Child Psychiatry and Human Development*, *51*(5), 671–682. https://doi.org/10.1007/s10578-020-01037-x

Sack, L. (2021). Mixed Methods Examination of Mothers' and Fathers' Emotion Socialization-Related Self- Efficacy and Links to Emotion Socialization.[Unpublished doctoral dissertation]. University of Guelph.

Sallquist, J. V., Eisenberg, N., Spinrad, T. L., Reiser, M., Hofer, C., Zhou, Q., … Eggum, N. (2009). Positive and negative emotionality: Trajectories across six years and relations with social competence. *Emotion*, *9*(1), 15–28. https://doi.org/10.1037/a0013970

Sanders, M. R., & Woolley, M. L. (2005). The relationship between maternal self-efficacy and parenting practices: Implications for parent training. *Child Care, Health and Development*, *31*(1), 65–73. https://doi.org/10.1016/s0368-1742(89)80090-6

Sanders, M. R., Montgomery, D. T., & Brechman-Toussaint, M. L. (2000). The mass media and the prevention of child behavior problems: The evaluation of a television series to promote positive outcomes for parents and their children. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, *41*(7), 939–948. https://doi.org/10.1017/S0021963099006198

Sanders, W., Zeman, J., Poon, J., & Miller, R. (2015). Child regulation of negative emotions and depressive symptoms: The moderating role of parental emotion socialization. *Journal of Child and Family Studies*, *24*(2), 402–415. https://doi.org/10.1007/s10826-013-9850-y

Schumacker, R. E., & Lomax, R. G. (2016). *A beginner's guide to structural equation modeling* (4th ed.). Taylor & Francis.

Shaffer, A., Suveg, C., Thomassin, K., & Bradbury, L. L. (2012). Emotion Socialization in the context of family risks: Links to child emotion regulation. *Journal of Child and Family Studies*, *21*(6), 917–924. https://doi.org/10.1007/s10826-011-9551-3

Shi, D., Lee, T., Fairchild, A. J., & Maydeu-Olivares, A. (2020). Fitting ordinal factor analysis models with missing data: A comparison between pairwise deletion and multiple imputation. *Educational and Psychological Measurement*, *80*(1), 41–66. https://doi.org/10.1177/0013164419845039

Shipman, K. L., & Zeman, J. (2001). Socialization of children's emotion regulation in mother-child dyads: A developmental psychopathology perspective. *Development and Psychopathology*, *12*(2), 317–336. https://doi.org/10.1017/S0954579401002073

Shumow, L., & Lomax, R. (2002). Parental efficacy: Predictor of parenting behavior and adolescent outcomes. *Parenting*, *2*(2), 127–150. https://doi.org/10.1207/S15327922PAR0202_03

Skinner, E., Johnson, S., & Snyder, T. (2005). Six dimensions of parenting: A motivational model. *Parenting: Science and Practice*, *5*(2), 17-235. https://doi.org/10.1207/s15327922par0502_3

Snyder, J., Stoolmiller, M., Wilson, M., & Yamamoto, M. (2003). Child anger regulation, parental responses to children's anger displays, and early child antisocial behavior. *Social Development*, *12*(3), 335–360. https://doi.org/10.1111/1467-9507.t01-1-00237

Sosa-Hernandez, L., Sack, L., Seddon, J. A., Bailey, K., & Thomassin, K. (2020). Mother and father repertoires of emotion socialization practices in middle childhood. *Journal of*

Applied Developmental Psychology, *69*(June), 101159. https://doi.org/10.1016/j.appdev.2020.101159

Suveg, C., Sood, E., Barmish, A., & 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*(6), 875–884. https://doi.org/10.1037/a0012861.

Suveg, C., Zeman, J., Flannery-Schroeder, E., & Cassano, M. (2005). Emotion socialization in families of children with an anxiety disorder. *Journal of Abnormal Child Psychology*, *33*(2), 145–155. https://doi.org/10.1007/s10802-005-1823-1

Tan, P. Z., Oppenheimer, C. W., Ladouceur, C. D., Butterfield, R. D., & Silk, J. S. (2020). A review of associations between parental emotion socialization behaviors and the neural substrates of emotional reactivity and regulation in youth. *Developmental Psychology*, *56*(3), 516–527. https://doi.org/10.1037/dev0000893.A

Tan, S., & Rey, J. (2005). Depression in the young, parental depression and parenting stress. *Child Psychiatry*, *13*(1), 76–79. https://doi.org/10.12987/yale/9780300103939.001.0001

Taylor, J. (2019). Structural validity of the Parenting Daily Hassles Intensity Scale. *Stress and Health*, *35*(2), 176–186. https://doi.org/10.1002/smi.2852

Thompson, R. (2014). Socialization of emotion and emotion regulation in the family. In J. Gross (Ed.), *Handbook of emotion regulation* (2nd ed., pp.173-186). The Guilford Press.

Tiede, M. A. (2020). The impact of parental meta-emotion philosophy and helicopter parenting on millennials' emotion regulation: A gendered analysis. [Unpublished doctoral dissertation]. University of Rochester.

Topham, G. L., Hubbs-Tait, L., Rutledge, J. M., Page, M. C., Kennedy, T. S., Shriver, L. H., & Harrist, A. W. (2011). Parenting styles, parental response to child emotion, and family

emotional responsiveness are related to child emotional eating. *Appetite*, *56*(2), 261–264. https://doi.org/10.1016/j.appet.2011.01.007

Trommsdorff, G., Cole, P. M., & Heikamp, T. (2012). Cultural variations in mothers' intuitive theories: A preliminary report on interviewing mothers from five nations about their socialization of children's emotions. *Global Studies of Childhood, 2*(2), 158–169. https://doi.org/10.2304/gsch.2012.2.2.158

Turpyn, C. C., & Chaplin, T. M. (2016). Mindful parenting and parents' emotion expression: effects on adolescent risk behaviors. *Mindfulness*, *7*(1), 246–254. https://doi.org/10.1007/s12671-015-0440-5

Turunen, J. (2013). Family structure, gender, and adolescent emotional well-being. *Journal of Divorce and Remarriage*, *54*(6), 476–504. https://doi.org/10.1080/10502556.2013.810982

Valiente, C., Eisenberg, N., Shepard, S. A., Fabes, R. A., Cumberland, A. J., Losoya, S. H., & Spinrad, T. L. (2004). The relations of mothers' negative expressivity to children's experience and expression of negative emotion. *Journal of Applied Developmental Psychology*, *25*(2), 215–235. https://doi.org/10.1016/j.appdev.2004.02.006

Vance, A. J., & Brandon, D. H. (2017). Delineating among parenting confidence, parenting self-efficacy, and competence. *Advances in Nursing Science*, *40*(4), E18–E37. https://doi.org/10.1097/ANS.0000000000000179

Walerius, D. M., Fogleman, N. D., & Rosen, P. J. (2016). The role of ADHD and negative emotional lability in predicting changes in parenting daily hassles. *Journal of Child and Family Studies*, *25*(7), 2279–2291. https://doi.org/10.1007/s10826-016-0381-1

Waters, S. F., Virmani, E. A., Thompson, R. A., Meyer, S., Raikes, H. A., & Jochem, R. (2010). Emotion regulation and attachment: Unpacking two constructs and their association. *Journal of Psychopathology and Behavioral Assessment*, *32*(1), 37–47. https://doi.org/10.1007/s10862-009-9163-z

Weijers, D., van Steensel, F. J. A., & Bögels, S. M. (2018). Associations between psychopathology in mothers, fathers and their children: A structural modeling approach. *Journal of Child and Family Studies, 27*(6), 1992–2003. https://doi.org/10.1007/s10826-018-1024-5

Wheaton, B., Young, M., Montazer, S., & Stuart-Lahman, K. (2013). Social stress in the twenty-first century. In C. S. Aneshensel, J. C. Phelan, & A. Bierman (Eds.). *Handbook of the sociology of mental health* (pp. 299–323). Springer. https://doi.org/10.1016/s0277-9536(00)00354-3

Wilson, K. R., Havighurst, S. S., & Harley, A. E. (2012). Tuning in to Kids: An effectiveness trial of a parenting program targeting emotion socialization of preschoolers. *Journal of Family Psychology*, *26*(1), 56–65. https://doi.org/10.1037/a0026480

Wittkowski, A., Garrett, C., Calam, R., & Weisberg, D. (2017). Self-report measures of parental self-efficacy: A systematic review of the current literature. *Journal of Child and Family Studies*, *26*(11), 2960–2978. https://doi.org/10.1007/s10826-017-0830-5

Wong, M. S., McElwain, N. L., & Halberstadt, A. G. (2009). Parent, family, and child characteristics: Associations with mother- and father-reported emotion socialization practices. *Journal of Family Psychology*, *23*(4), 452–463. https://doi.org/10.1037/a0015552

Woodman, A. C., Mawdsley, H. P., & Hauser-Cram, P. (2015). Parenting stress and child behavior problems within families of children with developmental disabilities: Transactional relations across 15 years. *Research in Developmental Disabilities*, *36*, 264–276. https://doi.org/10.1016/j.ridd.2014.10.011

Yakub, N. A., Kadir, N. B. A., & Hoesni, S. M. (2021). The relationship between daily hassles and social support on depressive symptoms among mothers of young kids. *The Open Psychology Journal*, *14*(1), 294–299. https://doi.org/10.2174/1874350102114010294

Yan, J., Han, Z. R., & Li, P. (2016). Intergenerational transmission of perceived bonding styles and paternal emotion socialization: Mediation through paternal emotion dysregulation. *Journal of Child and Family Studies*, *25*(1), 165–175. https://doi.org/10.1007/s10826-015-0199-2

Yap, M. B. H., Allen, N. B., Ladouceur, C. D., Yap, M. B. H., & Allen, N. B. (2018). Maternal socialization of positive affect: The impact of invalidation on adolescent emotion regulation and depressive symptomatology. *Child Development*, *79*(5), 1415–1431.

Yi, C. Y., Gentzler, A. L., Ramsey, M. A., & Root, A. E. (2016). Linking maternal socialization of positive emotions to children's behavioral problems: The moderating role of self-control. *Journal of Child and Family Studies*, *25*(5), 1550–1558. https://doi.org/10.1007/s10826-015-0329-x

Zeman, J., Cassano, M., Perry-Parrish, C., & Stegall, S. (2006). Emotion regulation in children and adolescents. *Journal of Developmental and Behavioral Pediatrics*, *27*(2), 155–168. https://doi.org/10.1097/00004703-200604000-00014

Zhuo, R., & Li, G. (2021). Association between second-time mother's prenatal depression and firstborn's behaviour problems: The mediation role of parenting daily hassles.

International *Journal of Environmental Research and Public Health*, *18*(23), 12794. https://doi.org/10.3390/ijerph182312794

Zinsser, K. M., Gordon, R. A., & Jiang, X. (2021). Parents' socialization of preschool-aged children's emotion skills: A meta-analysis using an emotion-focused parenting practices framework. *Early Childhood Research Quarterly*, *55*, 377–390. https://doi.org/10.1016/j.ecresq.2021.02.001

Ziv, I., Golbez, N., & Shapira, N. (2020). Parental sense of competence, resilience, and empathy in relation fathers' responses to children's negative emotions in the context of everyday paternal childrearing decisions. *Cogent Psychology*, *7*(1). https://doi.org/10.1080/23311908.2020.1794681

Appendices

Appendix A: Demographic Questionnaire

Please provide the following information about yourself:

1. What is your gender:
2. What is your age:
3. What is your ethnicity:
    a. African
    b. Asian
    c. Caucasian
    d. Indigenous
    e. Latino/Hispanic
    f. Middle Eastern
    g. Other
4. What is your marital status?
    a. Single (not living common law)
    b. Common law
    c. Married
    d. Separated
    e. Divorced
    f. Widowed
5. Do you have a condition (i.e., physical or mental health) that has been diagnosed by a medical doctor? If yes, please list conditions:
6. What is your highest level of education?
    a. Less than high school
    b. Completed high school
    c. Some college or technical school
    d. College or technical school diploma
    e. Some university
    f. University undergraduate degree
    g. University graduate degree

h. other

7. Please list your employment status:
    a. Employed
    b. Self-employed
    c. Homemaker
    d. Student
    e. Not working
    f. Other
8. Please indicate your annual household income
    a. $25,000 or less
    b. $25,001 - $50,000
    c. $50,001 - $100,000
    d. $100,001- $125,000
    e. $125,001 - $150,000
    f. $150,001 - $175,000
    g. $175,001 - $200,000
    h. Over $200,000 and over
    i. Prefer not to answer
9. Have you accessed formal parenting supports (e.g., family/parent-related counselling, parenting intervention) before? Do not count more informational supports, such as educational resources found online.
10. What is your relation to your child who is aged 7-11 years?
    a. Mother
    b. Father
    c. Stepmother
    d. Stepfather
    e. Other relation. If other, please list:
11. How many children live in the home with you?
    a. One
    b. Two
    c. Three

   d. Four
   e. Five
   f. Six
   g. More than six

12. How many of your children are between 7-11 years of age?
13. My child identifies as
   a. Female
   b. Male
   c. Identifies differently than female or male
14. Does your child have a condition (i.e., physical or mental health) that has been diagnosed by a medical doctor? If yes, please list conditions:

Appendix B: Parenting Stress Index – 4 Short Form

SA = Strongly Agree A = Agree NS = Not Sure D = Disagree SD = Strongly Disagree

	1	2	3	4	5
1. I often have the feeling that I cannot handle things very well.	SA	A	NS	D	SD
2. I find myself giving up more of my life to meet my children's needs than I ever expected.	SA	A	NS	D	SD
3. I feel trapped by my responsibilities as a parent.	SA	A	NS	D	SD
4. Since having this child, I have been unable to do new and different things.	SA	A	NS	D	SD
5. Since having a child, I feel that I am almost never able to do things that I like to do.	SA	A	NS	D	SD
6. I am unhappy with the last purchase of clothing I made for myself.	SA	A	NS	D	SD
7. There are quite a few things that bother me about my life.	SA	A	NS	D	SD
8. Having a child has caused more problems than I expected in my relationship with my spouse (or male/female friend).	SA	A	NS	D	SD
9. I feel alone and without friends.	SA	A	NS	D	SD
10. When I go to a party, I usually expect not to enjoy myself.	SA	A	NS	D	SD
11. I am not as interested in people as I used to be.	SA	A	NS	D	SD
12. I don't enjoy things as I used to.	SA	A	NS	D	SD
13. My child rarely does things for me that make me feel good.	SA	A	NS	D	SD
14. Sometimes I feel my child doesn't like me and doesn't want to be close to me.	SA	A	NS	D	SD
15. My child smiles at me much less than I expected.	SA	A	NS	D	SD
16. When I do things for my child, I get the feeling that my efforts are not appreciated very much.	SA	A	NS	D	SD
17. When playing, my child doesn't often giggle or laugh.	SA	A	NS	D	SD
18. My child doesn't seem to learn as quickly as most children.	SA	A	NS	D	SD
19. My child doesn't seem to smile as much as most children.	SA	A	NS	D	SD
20. My child is not able to do as much as I expected.	SA	A	NS	D	SD
21. It takes a long time and it is very hard for my child to get used to new things.	SA	A	NS	D	SD
For the next statement, choose your response from the choices "1" to "5" below.					
22. I feel that I am: 1. not very good at being a parent 2. a person who has some trouble being a parent 3. an average parent 4. a better than average parent 5. a very good parent	1	2	3	4	5
23. I expected to have closer and warmer feelings for my child than I do and this bothers me.	SA	A	NS	D	SD
24. Sometimes my child does things that bother me just to be mean.	SA	A	NS	D	SD
25. My child seems to cry or fuss more often than most children.	SA	A	NS	D	SD
26. My child generally wakes up in a bad mood.	SA	A	NS	D	SD
27. I feel that my child is very moody and easily upset.	SA	A	NS	D	SD
28. My child does a few things which bother me a great deal.	SA	A	NS	D	SD
29. My child reacts very strongly when something happens that my child doesn't like.	SA	A	NS	D	SD
30. My child gets upset easily over the smallest thing.	SA	A	NS	D	SD
31. My child's sleeping or eating schedule was much harder to establish than I expected.	SA	A	NS	D	SD
For the next statement, choose your response from the choices "1" to "5" below.					
32. I have found that getting my child to do something or stop doing something is: 1. much harder than I expected 2. somewhat harder than I expected 3. about as hard as I expected 4. somewhat easier than I expected 5. much easier than I expected	1	2	3	4	5
For the next statement, choose your response from the choices "10+" to "1-3."					
33. Think carefully and count the number of things which your child does that bother you. For example: dawdles, refuses to listen, overactive, cries, interrupts, fights, whines, etc.	10+	8-9	6-7	4-5	1-3
34. There are some things my child does that really bother me a lot.	SA	A	NS	D	SD
35. My child turned out to be more of a problem than I had expected.	SA	A	NS	D	SD
36. My child makes more demands on me than most children.	SA	A	NS	D	SD

Appendix C: Parenting Daily Hassles Scale

EVENT	How often it happens				Hassle (low to high)
1. Continually cleaning up messes of toys or food	Rarely	Sometimes	A lot	Constantly	1 2 3 4 5
2. Being nagged, whined at, complained to	Rarely	Sometimes	A lot	Constantly	1 2 3 4 5
3. Meal-time difficulties with picky eaters, complaining etc.	Rarely	Sometimes	A lot	Constantly	1 2 3 4 5
4. The kids won't listen or do what they are asked without being nagged	Rarely	Sometimes	A lot	Constantly	1 2 3 4 5
5. Baby-sitters are hard to find	Rarely	Sometimes	A lot	Constantly	1 2 3 4 5
6. The kids schedules (like pre-school or other activities) interfere with meeting your own household needs	Rarely	Sometimes	A lot	Constantly	1 2 3 4 5
7. Sibling arguments or fights require a 'referee'	Rarely	Sometimes	A lot	Constantly	1 2 3 4 5
8. The kids demand that you entertain them or play with them	Rarely	Sometimes	A lot	Constantly	1 2 3 4 5
9. The kids resist or struggle with you over bed-time	Rarely	Sometimes	A lot	Constantly	1 2 3 4 5
10. The kids are constantly underfoot, interfering with other chores	Rarely	Sometimes	A lot	Constantly	1 2 3 4 5
11. The need to keep a constant eye on where the kids are and what they are doing	Rarely	Sometimes	A lot	Constantly	1 2 3 4 5
12. The kids interrupt adult conversations or interactions	Rarely	Sometimes	A lot	Constantly	1 2 3 4 5
13. Having to change your plans because of unprecedented child needs	Rarely	Sometimes	A lot	Constantly	1 2 3 4 5
14. The kids get dirty several times a day requiring changes of clothing	Rarely	Sometimes	A lot	Constantly	1 2 3 4 5
15. Difficulties in getting privacy (eg. in the bathroom)	Rarely	Sometimes	A lot	Constantly	1 2 3 4 5
16. The kids are hard to manage in public (grocery store, shopping centre, restaurant)	Rarely	Sometimes	A lot	Constantly	1 2 3 4 5
17. Difficulties in getting kids ready for outings and leaving on time	Rarely	Sometimes	A lot	Constantly	1 2 3 4 5
18. Difficulties in leaving kids for a night out or at school or day care	Rarely	Sometimes	A lot	Constantly	1 2 3 4 5
19. The kids have difficulties with friends (eg. fighting, trouble, getting along, or no friends available)	Rarely	Sometimes	A lot	Constantly	1 2 3 4 5
20. Having to run extra errands to meet the kids needs	Rarely	Sometimes	A lot	Constantly	1 2 3 4 5

Questionnaire completed by *mother/father/adoptive parent/foster carer* (please specify)

Appendix D: Coping with Children's Negative Emotions Scale

ID _____

Parent Attitude/Behavior Questionnaire

Instructions: In the following items, please indicate on a scale from 1 (very unlikely) to 7 (very likely) the likelihood that you would respond in the ways listed for each item. Please read each item carefully and respond as honestly and sincerely as you can. For each response, please circle a number from 1-7.

Response Scale: 1 2 3 4 5 6 7
Very Unlikely Medium Very Likely

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1. If my child becomes angry because he/she is sick or hurt and can't go to his/her friend's birthday party, I would:

a. send my child to his/her room to cool off 1 2 3 4 5 6 7
b. get angry at my child 1 2 3 4 5 6 7
c. help my child think about ways that he/she can still be with friends (e.g., invite some friends over after the party) 1 2 3 4 5 6 7
d. tell my child not to make a big deal out of missing the party 1 2 3 4 5 6 7
e. encourage my child to express his/her feelings of anger and frustration 1 2 3 4 5 6 7
f. soothe my child and do something fun with him/her to make him/her feel better about missing the party 1 2 3 4 5 6 7

2. If my child falls off his/her bike and breaks it, and then gets upset and cries, I would:

a. remain calm and not let myself get anxious 1 2 3 4 5 6 7
b. comfort my child and try to get him/her to forget about the accident 1 2 3 4 5 6 7
c. tell my child that he/she is over-reacting 1 2 3 4 5 6 7
d. help my child figure out how to get the bike fixed 1 2 3 4 5 6 7
e. tell my child it's OK to cry 1 2 3 4 5 6 7
f. tell my child to stop crying or he/she won't be allowed to ride his/her bike anytime soon 1 2 3 4 5 6 7

3. If my child loses some prized possession and reacts with tears, I would:

a. get upset with him/her for being so careless and then crying about it 1 2 3 4 5 6 7
b. tell my child that he/she is over-reacting 1 2 3 4 5 6 7
c. help my child think of places he/she hasn't looked yet 1 2 3 4 5 6 7
d. distract my child by talking about happy things 1 2 3 4 5 6 7
e. tell him/her it's OK to cry when you feel unhappy 1 2 3 4 5 6 7
f. tell him/her that's what happens when you're not careful 1 2 3 4 5 6 7

4. If my child is afraid of injections and becomes quite shaky and teary while waiting for his/her turn to get a shot, I would:

a. tell him/her to shape up or he/she won't be allowed to do something he/she likes to do (e.g., watch TV) 1 2 3 4 5 6 7
b. encourage my child to talk about his/her fears 1 2 3 4 5 6 7
c. tell my child not to make big deal of the shot 1 2 3 4 5 6 7
d. tell him/her not to embarrass us by crying 1 2 3 4 5 6 7
e. comfort him/her before and after the shot 1 2 3 4 5 6 7
f. talk to my child about ways to make it hurt less (such as relaxing so it won't hurt or taking deep breaths). 1 2 3 4 5 6 7

Response Scale: 1 2 3 4 5 6 7
Very Unlikely Medium Very Likely

---

5. If my child is going over to spend the afternoon at a friend's house and becomes nervous and upset because I can't stay there with him/her, I would:

a. distract my child by talking about all the fun he/she will have with his/her friend 1 2 3 4 5 6 7
b. help my child think of things that he/she could do so that being at the friend's house without me wasn't scary (e.g., take a favorite book or toy with him/her) 1 2 3 4 5 6 7
c. tell my child to quit over-reacting and being a baby 1 2 3 4 5 6 7
d. tell the child that if he/she doesn't stop that he/she won't be allowed to go out anymore 1 2 3 4 5 6 7
e. feel upset and uncomfortable because of my child's reactions 1 2 3 4 5 6 7
f. encourage my child to talk about his/her nervous feelings 1 2 3 4 5 6 7

6. If my child is participating in some group activity with his/her friends and proceeds to make a mistake and then looks embarrassed and on the verge of tears, I would:

a. comfort my child and try to make him/her feel better 1 2 3 4 5 6 7
b. tell my child that he/she is over-reacting 1 2 3 4 5 6 7
c. feel uncomfortable and embarrassed myself 1 2 3 4 5 6 7
d. tell my child to straighten up or we'll go home right away 1 2 3 4 5 6 7
e. encourage my child to talk about his/her feelings of embarrassment 1 2 3 4 5 6 7
f. tell my child that I'll help him/her practice so that he/she can do better next time 1 2 3 4 5 6 7

7. If my child is about to appear in a recital or sports activity and becomes visibly nervous about people watching him/her, I would:

a. help my child think of things that he/she could do to get ready for his/her turn (e.g., to do some warm-ups and not to look at the audience) 1 2 3 4 5 6 7
b. suggest that my child think about something relaxing so that his/her nervousness will go away 1 2 3 4 5 6 7
c. remain calm and not get nervous myself 1 2 3 4 5 6 7
d. tell my child that he/she is being a baby about it 1 2 3 4 5 6 7
e. tell my child that if he/she doesn't calm down, we'll have to leave and go home right away 1 2 3 4 5 6 7
f. encourage my child to talk about his/her nervous feelings 1 2 3 4 5 6 7

8. If my child receives an undesirable birthday gift from a friend and looks obviously disappointed, even annoyed, after opening it in the presence of the friend, I would:

a. encourage my child to express his/her disappointed feelings 1 2 3 4 5 6 7
b. tell my child that the present can be exchanged for something the child wants 1 2 3 4 5 6 7
c. NOT be annoyed with my child for being rude 1 2 3 4 5 6 7
d. tell my child that he/she is over-reacting 1 2 3 4 5 6 7
e. scold my child for being insensitive to the friend's feelings 1 2 3 4 5 6 7
f. try to get my child to feel better by doing something fun 1 2 3 4 5 6 7

Response Scale: 1 2 3 4 5 6 7
Very Unlikely Medium Very Likely

---

9. If my child is panicky and can't go to sleep after watching a scary TV show, I would:

a. encourage my child to talk about what scared him/her 1 2 3 4 5 6 7
b. get upset with him/her for being silly 1 2 3 4 5 6 7
c. tell my child that he/she is over-reacting 1 2 3 4 5 6 7
d. help my child think of something to do so that he/she can get to sleep (e.g., take a toy to bed, leave the lights on) 1 2 3 4 5 6 7
e. tell him/her to go to bed or he/she won't be allowed to watch any more TV 1 2 3 4 5 6 7
f. do something fun with my child to help him/her forget about what scared him/her 1 2 3 4 5 6 7

10. If my child is at a park and appears on the verge of tears because the other children are mean to him/her and won't let him/her play with them, I would:

a. NOT get upset myself 1 2 3 4 5 6 7
b. tell my child that if he/she starts crying then we'll have to go home right away 1 2 3 4 5 6 7
c. tell my child it's OK to cry when he/she feels bad 1 2 3 4 5 6 7
d. comfort my child and try to get him/her to think about something happy 1 2 3 4 5 6 7
e. help my child think of something else to do 1 2 3 4 5 6 7
f. tell my child that he/she will feel better soon 1 2 3 4 5 6 7

11. If my child is playing with other children and one of them calls him/her names, and my child then begins to tremble and become tearful, I would:

a. tell my child not to make a big deal out of it 1 2 3 4 5 6 7
b. feel upset myself 1 2 3 4 5 6 7
c. tell my child to behave or we'll have to go home right away 1 2 3 4 5 6 7
d. help my child think of constructive things to do when other children tease him/her (e.g., find other things to do) 1 2 3 4 5 6 7
e. comfort him/her and play a game to take his/her mind off the upsetting event 1 2 3 4 5 6 7
f. encourage him/her to talk about how it hurts to be teased 1 2 3 4 5 6 7

12. If my child is shy and scared around strangers and consistently becomes teary and wants to stay in his/her bedroom whenever family friends come to visit, I would:

a. help my child think of things to do that would make meeting my friends less scary (e.g., to take a favorite toy with him/her when meeting my friends) 1 2 3 4 5 6 7
b. tell my child that it is OK to feel nervous 1 2 3 4 5 6 7
c. try to make my child happy by talking about the fun things we can do with our friends 1 2 3 4 5 6 7
d. feel upset and uncomfortable because of my child's reactions 1 2 3 4 5 6 7
e. tell my child that he/she must stay in the living room and visit with our friends 1 2 3 4 5 6 7
f. tell my child that he/she is being a baby 1 2 3 4 5 6 7

Appendix E: Self-Expressiveness in the Family Questionnaire

To answer the questionnaire, try to think of how frequently you express yourself during each of the following situations with family members. Circle a number on the rating scale that indicates how frequently you express yourself in that situation when it occurs. Thus, if you never or rarely express those feelings, circle a 1, 2, or 3. If you express those feelings with some moderate frequency, circle 4, 5, or 6. And if you express those feelings very frequently, circle a 7, 8, or 9. Some items may be difficult to judge. However, it is important to answer every item. Try to respond quickly and honestly about yourself. There are no right or wrong answers, and we don't believe that any answer is better than another.

	Never or Rarely	Moderate Frequency	Very Frequently
1. Showing forgiveness to one who broke a favourite possession.	1 2 3	4 5 6	7 8 9
2. Thanking family members for something they have done.	1 2 3	4 5 6	7 8 9
3. Exclaiming over a beautiful day.	1 2 3	4 5 6	7 8 9
4. Showing contempt for another's actions.	1 2 3	4 5 6	7 8 9
5. Expressing dissatisfaction with someone else's behaviour.	1 2 3	4 5 6	7 8 9
6. Praising someone for good work.	1 2 3	4 5 6	7 8 9
7. Expressing anger at someone else's carelessness.	1 2 3	4 5 6	7 8 9
8. Sulking over unfair treatment by a family member	1 2 3	4 5 6	7 8 9
9. Blaming one another for family troubles.	1 2 3	4 5 6	7 8 9
10. Crying after an unpleasant agreement.	1 2 3	4 5 6	7 8 9
11. Putting down other people's interests.	1 2 3	4 5 6	7 8 9
12. Showing dislike for someone.	1 2 3	4 5 6	7 8 9
13. Seeking approval for an action.	1 2 3	4 5 6	7 8 9

14. Expressing embarrassment over a stupid mistake.	1 2 3	4 5 6	7 8 9
15. Going to pieces when tension builds up.	1 2 3	4 5 6	7 8 9
16. Expressing exhilaration after an unexpected triumph.	1 2 3	4 5 6	7 8 9
17. Expressing excitement over one's future plans	1 2 3	4 5 6	7 8 9
18. Demonstrating admiration.	1 2 3	4 5 6	7 8 9
19. Expressing sorrow when a pet dies.	1 2 3	4 5 6	7 8 9
20. Expressing disappointment over something that didn't work out.	1 2 3	4 5 6	7 8 9
21. Telling someone how nice they look.	1 2 3	4 5 6	7 8 9
22. Expressing sympathy for someone else's troubles.	1 2 3	4 5 6	7 8 9
23. Expressing deep affection or love for someone.	1 2 3	4 5 6	7 8 9
24. Quarrelling with a family member.	1 2 3	4 5 6	7 8 9
25. Crying when a loved one goes away.	1 2 3	4 5 6	7 8 9
26. Spontaneously hugging a family member.	1 2 3	4 5 6	7 8 9
27. Expressing momentary anger over a trivial irritation.	1 2 3	4 5 6	7 8 9
28. Expressing concern for the success of other family members.	1 2 3	4 5 6	7 8 9
29. Apologizing for being late.	1 2 3	4 5 6	7 8 9
30. Offering to do somebody a favour.	1 2 3	4 5 6	7 8 9
31. Snuggling up to a family member.	1 2 3	4 5 6	7 8 9
32. Showing how upset you are after a bad day.	1 2 3	4 5 6	7 8 9

33. Trying to cheer up someone who is sad.	1 2 3	4 5 6	7 8 9
34. Telling a family member how hurt you are.	1 2 3	4 5 6	7 8 9
35. Telling a family member how happy you are.	1 2 3	4 5 6	7 8 9
36. Threatening someone.	1 2 3	4 5 6	7 8 9
37. Criticizing someone for being late.	1 2 3	4 5 6	7 8 9
38. Expressing gratitude for a favour.	1 2 3	4 5 6	7 8 9
39. Surprising someone with a little gift or favour.	1 2 3	4 5 6	7 8 9
40. Saying “I’m sorry” when one realizes one was wrong.	1 2 3	4 5 6	7 8 9

Appendix F: Parenting Sense of Competence Scale

Please rate the extent to which you agree or disagree with each of the following statements.

Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6

1.	The problems of taking care of a child are easy to solve once you know how your actions affect your child, an understanding I have acquired.	1	2	3	4	5	6
2.	I would make a fine model for a new mother/father to follow in order to learn what she/he would need to know in order to be a good parent.	1	2	3	4	5	6
3.	Being a parent is manageable, and any problems are easily solved.	1	2	3	4	5	6
4.	I meet by own personal expectations for expertise in caring for my child.	1	2	3	4	5	6
5.	If anyone can find the answer to what is troubling my child, I am the one.	1	2	3	4	5	6
6.	Considering how long I've been a mother/father, I feel thoroughly familiar with this role.	1	2	3	4	5	6
7.	I honestly believe I have all the skills necessary to be a good mother/father to my child.	1	2	3	4	5	6
8.	Being a good mother/father is a reward in itself.	1	2	3	4	5	6