Intensive Mothering Attitudes and Children's Executive Function: The Role of Parenting Stress

Casey Marie McGregor

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Joyce Arditti (Chair)

April Few-Demo

Elizabeth Johnson

Cynthia Smith

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ABSTRACT

Intensive mothering (IM) is increasingly being recognized as a dominant parenting discourse. IM, conceptualized as hyper-parenting ideals that place pressure on mothers to cultivate children's cognitive development, has also been demonstrated to have consequences for mothers' mental wellbeing. On the other hand, IM attitudes also appear to contribute to parenting strategies that can be considered beneficial for young children's developmental growth. Considering these complexities, the present research was grounded in a theoretical framework guided by ecological and risk and resilience theories to test a holistic model which positioned IM as having indirect associations with children's executive functioning (EF) through two pathways: positive parenting strategies and parenting stress. Contrary to the theoretical purposes of IM-informed parenting, IM did not contribute to better cognitive outcomes in 3–5-year-old children through positive parenting. Instead, IM indirectly contributed to higher reports of dysfunctions in children's EF through the mechanism of parenting stress. Further, a conditional process model advanced previous understandings of IM by illuminating the processes through which cumulative risk strengthened the associations between these core constructs. Based on the results presented in this research, IM ideology is argued to be a context of risk for families with an accumulation of contextual risk factors.

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General Audience ABSTRACT

This research study investigated how modern parenting beliefs, called "intensive mothering", related to mothers' experiences with parenting stress, parenting behaviors that are considered good for young children, and young children's developmental outcomes. Intensive mothering involves beliefs such as "children needs should come before the parents' needs" and "it is the mothers' job to make sure young children are intellectually stimulated as much as possible." While these ideas would seem like good things for young children, this study found that having such high standards for mothers parenting expectations create more stress in mothers which, consequently, was related to worse developmental outcomes for young children. If the families who participated in this research had a few characteristics that make it harder for families to thrive, like limited financial resources, then they seemed to report even more parenting stress and even worse outcomes for their children. These findings suggest that holding such high parenting expectations may unintentionally hurt mothers and their children.

Dedication

I dedicate this dissertation and all of the work that coalesced into this final document to my family—those who have come before and helped instill resilience and grit in me, and to those who will come after me who I hope to inspire.

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CHAPTER 1: BACKGROUND

Background and Significance

Hyper-parenting, termed "intensive mothering" (IM) by Sharon Hays (1996), represents modern parenting beliefs that involve excessive efforts to attend to children's development. Recent evidence demonstrated that the IM ideology is dominant across socioeconomic and racial backgrounds—that is, many parents in Western cultures regard IM beliefs as the gold standard for raising children (Arendell, 2000; Craig et al., 2014; Forbes et al., 2020; Ishizuka, 2019). Briefly, IM consists of the beliefs that children require parental intervention to be the most successful in regard to intellectual and academic outcomes, that children are pure and ought to come before mothers paid employment responsibilities, and that mothers are naturally better caregivers than fathers (Hays, 1996). Even though some of these assumptions, notably that mothers are better caregivers than fathers, have been challenged by mothers participating in qualitative research involving IM (e.g., Elliott et al., 2015; Forbes et al., 2020), the implications of IM for families are still widespread. In particular, IM beliefs have been demonstrated to be costly to mothers' psychological wellbeing (e.g., Budds et al., 2017; Rizzo et al., 2013; Wall, 2010). Moreover, research that examined parenting strategies, such as anticipatory problem solving, that were inspired by IM beliefs, did not find evidence that such practices accounted for advances in child developmental outcomes above and beyond what would typically be expected (Schiffrin et al., 2015). These studies raise questions about the extent to which IM beliefs benefit parents and children and suggest that they may, in fact, create unintended consequences—namely burned-out parents and anxious, overparented children (e.g., Ginsburg, 2007; Lareau, 2003; Schiffrin et al., 2015).

Overall, the current literature suggests that IM attitudes may pose more harm than good, particularly for mothers' psychological adjustment. However, there is an overall lack of empirical research involving IM attitudes and the ways they might connect with parenting processes and child developmental outcomes. Even more, the literature centered on IM is largely informed by white, middle-class women and families in relatively privileged social locations (e.g., Schiffrin et al., 2015; Wall, 2010). It is unclear how IM is enacted and experienced within more diverse family scenarios. Studying low resourced families—that is families experiencing economic and material hardships—and families of color may provide especially important insights on how IM beliefs may inform certain parenting processes and child outcomes. Indeed, variation in individual and family outcomes have been noted in parallel literatures, especially research in which study variables are situated within a family and ecological context (e.g., Johnson et al., 2018). For example, Gershoff and colleagues (2007) advanced our understanding of the ways in which material hardship affects child cognitive and social-emotional developmental outcomes by testing a model linking parenting behaviors, stress in parents, and parental investment in children amongst a sample of 20,628 parents (96% were mothers or female guardians). These researchers hypothesized that material hardship, conceptualized as food insecurity, residential instability, inadequate access to medical care, and financial stress would indirectly explain variation in children's social and cognitive skills. Gershoff and colleagues specified children's emotional competence would be a function of parent stress which would, in turn, negatively impact parents' behavior with their children and their abilities to invest in them (Gershoff et al., 2007). Yet study findings ran counter to study hypotheses; Gershoff et al. (2007) discovered that whenever families struggled more with material hardship, more positive parenting behaviors and investments in children were recorded. Gershoff and colleagues (2007)

theorized that their unexpected findings may suggest that parents facing some adversity compensate for parenting stress and inability to invest ample amounts of time and money into their children by providing more positive parenting practices. Gershoff and colleagues (2007) theorized that parents experiencing more material hardship, and therefore more stress, responded to stress by placing more investments, both positive parenting and material investments, in children to overcompensate for contexts of economic risk. While the compensatory model may help explain the findings, it appeared that low-resourced parents still invested more time and proportionately more money into their children than their more affluent counterparts. What could account for these investments? One unexplored explanation could involve parenting beliefs held by low resourced parents. Could it be that low-resourced mothers are more likely to endorse IM attitudes and thus enact such attitudes through child investment and positive parenting strategies aimed at supporting child development? The present study seeks to explore this possibility through an analysis of these variables among an economically diverse sample of mothers.

In addition to the possibility of parenting attitudes explaining variation in parental investments in children, the fact that parents experiencing material hardship are putting significant effort into parenting also could suggest that there are certain family processes, such as positive parenting behaviors, that lend themselves to resilient outcomes within families experiencing material hardship. Ecological theory holds that more distal factors, such as parenting ideologies, may inform more proximal parenting processes, such as positive parenting behaviors. Resilience frameworks extend this notion in that, consistent with the findings of the Gershoff (2007) study, families may create a positive proximal environment for their children despite a high-risk distal environment characterized by material hardship (Arditti & Johnson,

2020; MacKay, 2003). Therefore, the implications of IM may vary as a function of material hardship and other indicators of cumulative risk.

From a resilience perspective, it is possible that the most disadvantaged families benefit from IM beliefs to the extent that they contribute to the creation of a "low risk" proximal environment characterized by protective parenting processes aimed at cultivating young children. In particular, IM beliefs, such as the need to center attention on children and make efforts to promote children's intellectual growth, could encourage certain parenting behaviors that have been shown to benefit children. These "benefits," however, could be context dependent. For example, research examining families' socioeconomic contexts and child outcomes associated with extracurricular activities highlight variation in the benefits of parenting strategies aimed at fostering development. First, Schiffrin and colleagues (2015) hypothesized that intensive mothers would be more likely to enroll their preschool-aged children in extracurricular activities. While middle-class intensive mothers were indeed more likely to enroll their children in such activities, their children were not more likely to demonstrate significant developmental gains (Schiffrin et al., 2015). Yet in another study, youth from low-income backgrounds were found to fare better on indicators of academic achievement whenever they were involved in extracurricular activities, but these benefits did not extend to their middle-class peers (Covay & Carbonaro, 2010). These results suggest that the beneficial effects of children's involvement in extracurricular activities vary depending upon their exposure to contextual risk.

Similar to variation in child effects associated with extracurricular activities, one can extrapolate from other research that examines the benefits of parenting strategies within diverse socioeconomic contexts. Paat (2010) found that "IM inspired" parenting strategies centered on spending time with children in enrichment activities only seemed to confer positive outcomes for

children characterized by residential instability. In comparison, children from families with established residences (i.e., family home ownership) did not garnish these benefits from maternal IM practices (Paat, 2010). These findings not only point to the possibility of creating interventions that are sensitive to differential contexts and responses to parenting, (e.g., Mogro-Wilson et al., 2019; Ungar, 2017), but to the importance of considering diverse family profiles and risk susceptibility in thinking about the ways in which intensive parenting and related actions might impact children. Indeed, the mothers in Schiffrin and colleagues (2015) study were primarily white (77.2%) and middle-upper middle class (61.8%), therefore the lack of developmental gains attributed to IM inspired parenting strategies could be due to the overall lack of adversity within the population studied. Extrapolating from the parenting literature, considering the role of IM attitudes on parenting and child outcomes, it would make sense to more holistically examine how IM attitudes contribute to proximal parenting processes and children's developmental outcomes, and how these associations might differ within varying contexts.

Study Purpose and Research Questions

Informed by an integrative theoretical framework that draws from ecological and resilience theory, along with empirical research linking parenting behaviors and parenting stress with children's developmental outcomes, this study sought to test a moderated mediation model to explore how IM attitudes were associated with children's cognitive skills. Ecological theory (Bronfenbrenner, 1979) and resilience theory (Hadfield & Ungar, 2018; Walsh, 2003) situated the current study by grounding two conceptual models specifying the ways in which IM may influence distal (e.g., cumulative risk) and proximal family processes (e.g., parenting stress and positive parenting strategies). In the first model, direct and indirect effects of IM attitudes on

children's executive functioning through the mechanisms of positive parenting strategies and parenting stress were explored. Next, a conditional process model (i.e., moderated-mediation) in which cumulative risk was posited as a moderating variable was tested to uncover the nuances of the ways in which IM attitudes connect with proximal parenting processes and children's executive functioning across families characterized by varying degrees of contextual risk.

The overarching purpose of this study was to advance previous conceptions of IM by testing these holistic process models. Based on previous literature that suggests many parents within the U.S. highly endorse IM attitudes (Forbes, 2020; Ishizuka, 2019), that IM attitudes may confer negative mental health outcomes for mothers (Rizzo et al. 2013), and that IM beliefs appear to predict certain parenting strategies (Paat, 2010; Schiffrin et al., 2015) that have differential implications for children based on the contextual risk of families, the present study sought to holistically consider the processual pathways through which these mechanisms might influence mothers and their children. Further, previous empirical research has only narrowly considered the ways in which IM predict specific parenting strategies, such as enrolling preschoolers in extracurricular activities (Schiffrin et al., 2015) and spending time in enrichment activities (Paat, 2010). Per ecological theory, there is heuristic value in examining how IM attitudes might explain variation in parenting strategies and experiences that are more closely related to the day-to-day parenting of young children. Further, while quantitative and qualitative research with mothers has suggested that IM attitudes undermine mother's mental well-being, an examination of how IM is associated with parenting stress—that is the stress directly experienced in relation to parenting responsibilities (Deater-Deckard, 1998)—more sharply considers mothers experiences as it directly pertains to caring for children. Finally, central to the IM ideology is that mother's ought to be concerned with children's cognitive development, often

described as "brain development" and academic readiness (Wall, 2010), yet previous research has not considered the associations between IM attitudes and indicators of children's cognition. As such, the aims of the present study were to fill these gaps within the IM literature.

Broadly, this research advances conceptualization of how IM ideology contributes to parenting processes and children's cognitive outcomes through proximal parenting processes and distal risk. The following questions guided the study analyses:

1. Do IM attitudes influence parenting processes that contribute to young children's executive functioning?
    a. Do IM attitudes contribute to higher reports of positive parenting strategies?
    b. What are the associations between IM attitudes and parenting stress?
2. What are the associations (direct and indirect) among IM attitudes, positive parenting behaviors, parenting stress, and children's executive functioning?
    a. Are the associations between IM attitudes and children's executive functioning mediated by positive parenting strategies and/or parenting stress?
    b. Are the direct and/or indirect effects of IM attitudes on children's executive functioning through parenting stress and/or positive parenting strategies moderated by varying degrees of cumulative risk?

CHAPTER 2: THEORETICAL FOUNDATION

Scholarship on IM has drawn primarily from sociological perspectives and, more recently, developmental perspectives. Sociological orientations have tended to focus on the prevalence of IM on larger, cultural scales while developmental orientations have focused on implications of IM for families and children. These two silos of research provide a comprehensive picture of the IM ideology through macro (sociology) and micro (developmental science) lens, but a holistic conceptualization of IM from multiple ecological system perspectives have not yet been considered. Still, previous literature, as reviewed in the following chapter, demonstrated that IM attitudes have negative implications for mothers' psychological wellbeing. In particular, IM attitudes was identified as a source of generalized stress and depression (e.g., Rizzo et al., 2013; Romagnoli & Wall, 2012; Wall, 2010). The implications of IM for children are less clear but initial investigations do not demonstrate significant developmental gains for middle-class children of intense parents (Schiffrin et al., 2015). However, current scholarship on IM and its implications for families is limited, especially in regard to families who likely experience contextual risks, such as inadequate financial resources and limited education. The present research sought to advance the literature on IM by answering key processual questions regarding how IM contributes to individual and parenting outcomes across demographic backgrounds with special consideration for families who experience a cumulation of risks.

The present research was grounded in an integrative theoretical model informed by Ecological and resilience theories. Ecological theory, with its focus on the interplay amongst proximal processes and distal factors, and resilience theory, which specifies protection and adaption in contexts of risk, combine to create a framework in which IM beliefs and their

implications could be holistically examined. Both theories are inherently systemic, that is both ecological and resilience theory point to how various contexts or systemic levels (e.g., individual, familial, collective) interact and drive developmental trajectories. Therefore, both theories serve as a dynamic foundation from which to consider the nuanced ways IM may influence parenting and child outcomes among families with varying degrees of risk as well as under what circumstances that IM could be adaptive.

Ecological Theory

Conceptualized by Bronfenbrenner (1979), and more recently by Bronfenbrenner and Morris (2006), an ecological systems perspective posits that children's development cannot be understood without considering the many contexts in which the child is positioned. Visualized as spheres within spheres, each contextual system is embedded within larger systems, and each interacts to ultimately shape children's development. An extension of Bronfenbrenner's (1979) original conceptualization of ecological theory, family ecology theory situates either the child or the entire family within the center sphere—in other words, the family can also be the center of analysis (Allen & Henderson, 2017). There are several assumptions that make up ecological theory. First, phenomena such as parenting behaviors and children's cognitive and social – emotional outcomes can only be understood within its context. Second, the major assumption of ecological theory is that the individual (or family) is nested within larger systems (Bronfenbrenner, 1977) and these systems are interdependent. For example, the individual is nested within the family, the family is nested within a neighborhood, and so on. Events, changes, dynamics, and processes within these broader systems will, according to theory, have an effect on children through various mechanisms (e.g., parenting behaviors). Next, Bronfenbrenner

(1979) stated that individuals and groups are both biologically and socially driven. These assumptions make up the core "identity" of ecological theory.

The major concepts that help to explain and operationalize ecological theory involve the various systems or contexts within which the family and child is embedded. These systems can be conceptualized as circles within one another—the center circle is the unit of analysis, which is typically the individual and is within a larger circle (i.e., microsystem), which is also situated within an even larger circle (i.e., exosystem) and so on. Microsystem processes and distal macrosystem factors are especially salient in the present research. First, the microsystem are the objects and experiences within an individual's immediate or direct surroundings, including the family, events, and developmental processes. Proximal processes are enduring day-to day interactions that drive development (Bronfenbrenner, 1977). In this study, parenting stress and parenting strategies were conceptualized as proximal processes that fall within the microsystem. For young children, parenting stress and behaviors (i.e., strategies) are central proximal processes shaping developmental trajectories (Crnic et al., 2005). These proximal parenting processes specifically influence children's cognitive and socioemotional outcomes (e.g., Bernier et al., 2010; Fay-Stammbach et al., 2014; Goodman, 2007; Kiernan & Huerta, 2008; Mills-Koonce et al., 2015).

Proximal parenting processes are influenced by more distal factors that fall within the macrosystem of ecological theory. The macrosystem includes larger constructs such as ideologies, values, attitudes, and cultural beliefs. Relevant to the current study, IM beliefs are a cultural phenomenon that holds certain notions about parenting norms. These widely held parenting beliefs, or IM beliefs and attitudes, have been demonstrated to connect with parenting behaviors (Schiffrin et al., 2015; Romagnoli & Wall, 2012; Wall, 2010). In other words, macro-

level parenting beliefs, or IM, appears to influence proximal parenting processes that may drive children's developmental trajectories. However, the significance of IM attitudes and their indirect influence on children's developmental outcomes through the mediating pathways of proximal maternal psychological and parenting processes are still unclear.

Similarly, contextual risk, conceptualized in this study as a broad set of relevant distal factors, have also been shown to influence children's trajectories through proximal processes (e.g., Evans et al., 2013; Lickenbrock & Braungart-Riekerb, 2015). For example, young mothers, a characterization that is often deemed "risky", are more likely to experience high parenting stress in relation to older mothers (Larson, 2004) which can have consequences for young children's socioemotional and behavioral functioning (Crnic et al., 2005). In addition, low-income families characterized by high family risk, conceptualized as an accumulation of relevant risks (e.g., parental incarceration), experienced more parenting stress than low-income families with lower levels of cumulative risk (Raikes & Thompson, 2005). Cumulative contextual risk also has implications for parents' abilities to engage in positive parenting practices. Through a systematic review of 22 studies involving mediating mechanisms that reduce the effects of early childhood poverty and improve children's developmental outcomes, Saitadze and Lalayants (2021) concluded that the effects of poverty negatively influence quality parenting through the mediating role of parenting stress. However, engaging in positive parenting strategies, such as praising young children (i.e., positive regard) and engaging in intellectually stimulating activities (e.g., playing learning games), enhance children's development. Considering the principles of IM, it could be that intensive mothers are more likely to engage in positive parenting strategies than mothers who are less intensive, thus potentially offsetting some consequences of cumulative risk (e.g., parenting stress). On the contrary and considering the pressures associated with IM,

the IM ideology could be paradoxical in that intensive mothers could experience more parenting stress than mothers who do not ascribe to such intensive parenting beliefs. Moreover, mothers who also experience higher levels of contextual risk likely experience more parenting stress (Saitadze & Lalayants,2021); IM, then, could contribute to high-risk mothers' experiences of parenting stress and thus confer negative consequences for young children's developmental trajectories. Utilizing an ecological framework to situate the proximal and distal constructs of interest, the present study advances the literature by holistically exploring the associations between IM attitudes, proximal processes, and indicators of young children's cognitive development within varying contexts of cumulative risk.

Resilience Theory

In addition to ecological theory, a resilience framework informed the present research. Application of resilience theory has shifted throughout the decades from the study of individual traits of children doing better than expected in the presence of some adversity, to a "systemic resilience" perspective that tends to be sensitive to family strengths and larger contexts (Hadfield & Unger, 2018). Indeed, Unger and Hadfield (2019) described resilience to be "a dynamic process which is facilitated through interactions between individuals and biological, psychological, social and ecological factors" (p. 135). These various contexts contribute to family and individual adaptations in the presence of certain risks. "Risk" may be defined as any specific context or factors that are believed to be a threat to successful development (Masten et al., 1999). Some risk and protective factors identified in the child development and family literature and which are relevant to the current study include parenting behaviors (Fay-Stammbach et al., 2014; Goodman et al., 2020; Lugo-Gil & Tamis-LeMonda, 2009; Maccoby, 1994), parenting stress (Deater-Deckard, 1998; Saitadze & Lalayants, 2021), and contexts of

cumulative disadvantage which include economic hardship (Pungello et al., 2010; Sherman & Harris, 2012). However, recent calls have been made to approach family research from a strength-based perspective—that is to purposefully examine strengths amongst individuals and families and their more distal contexts such as those found with the micro-and-macrosystems (Arditti & Johnson, 2020). In other words, research situated within a resilience framework ought to not only identify contextual risks that threaten children's developmental trajectories, but also include opportunities to identify adaptation or protective factors that confer family success (Arditti & Johnson, 2020; Masten, 2014).

Exemplary scholarship involving the application of a resilience framework can be seen in work involving parental incarceration (Arditti & Johnson, 2020). For instance, Giordano and Copp (2015) reviewed the risk and resilience literature as it pertains to parental incarceration and child adjustment. They outlined that there are certain risk factors associated with parental incarceration that seem to interact to have greater implications for children of incarcerated parents. On the contrary, Johnson, Arditti, and McGregor (2018) used a mixed-methods approach to advance the literature on parental incarceration and its' contribution to the adjustment of youth by applying a resilience framework that extended beyond a deficit-oriented model. Findings revealed that in addition to packages of risk (Giordano & Copp, 2015), there may also be "packages of resilience"—that is, certain variables, such as caregiver positive expressiveness, agency, and social support, that collectively seemed to contribute to positive outcomes for youth (Johnson et al., 2018).

Beyond contexts of parental incarceration, these "packages of resilience" may apply to an array of risk environments as they pertain to children's adjustment and developmental outcomes, and they may be more or less salient within groups. Indeed, variation appears to exist within

groups that are deemed "high-risk" or "at-promise," lending to the examination of resilience factors. For example, Turney and Wildeman (2015) found that there were subgroups of children of incarcerated parents that varied in terms of adjustment. In particular, they found that children of parents who were least likely to be incarcerated were impacted the most. Children who had parents who were incarcerated multiple times were the least affected (Turney & Wildeman, 2015). In this sense, children who were more accustomed to parental incarceration were the most resilient in the face of subsequent parental incarcerations. Perhaps Assari's (2019) conceptualization of differential exposure in relation to Black Americans is applicable to the understanding of these varying outcomes. According to Assari (2019) Black Americans are more likely to be exposed to certain risk factors yet they are also more resilient than White Americans in the face of adversity, likely due to their adaptations to harsh environments characterized by multiple risks (e.g., discrimination). It could be that this perspective, which is an extension of risk and resilience theory, can be applied to families within other contexts of risks. In a similar vein, Ungar (2017) proposed that differential impact theory helps to explain why some risks and some protective factors matter more or less to individuals and families according to their specific contexts of disadvantage. In this respect, differential impact theory (Ungar, 2017), in conjunction with and as an extension of resilience theory, may inform the ways in which IM beliefs differentially map on to parenting stress, parenting strategies, and child developmental trajectories depending on children's social location and risk profile.

IM likely has different implications depending on mothers' social locations and resources, and despite the potential for negative mental health outcomes, could potentially connect with positive outcomes for children. In this manner aspects of IM could contribute to family resilience in ways not previously considered. As reviewed in the following chapter, IM

attitudes seem to inform parenting processes and it is also well established that parenting behaviors and maternal psychological wellbeing contribute to children's cognitive and social-emotional adjustment. These parenting processes, such as parenting behaviors, may serve as protective factors for children in adverse contexts. Indeed, Masten and colleagues (1999) investigated parenting processes and their potential protective properties against cumulative exposure to psychosocial adversity. They found that parenting quality and child intelligence served as important protective factors that attributed to child resilience, defined by academic achievement, behavior, and social competence (Masten et al., 1999). Similarly, Vanderbilt-Adriance and Shaw (2008) found that child IQ, nurturant parenting, and parent–child relationship quality during early childhood were associated with fewer antisocial behaviors and higher social skills in adolescence within the context of neighborhood risk.

Given that parenting quality can serve as an important protective factor, it is worthwhile to consider how certain parenting strategies are enacted within various contexts of risk. It may be that parents within a context of risk employ compensatory parenting strategies to ensure their children fare well. Indeed, Gershoff et al. (2007) discovered that whenever families struggled more with material hardship, more positive parenting behaviors were recorded lending to the hypothesis that parents facing some adversity compensate for parenting stress and the inability to invest ample amounts of time and money into their children by providing positive parenting environments. These findings helped to situate theorizing regarding how IM's association with proximal parenting processes and children's developmental outcomes could be a function of the family's cumulative risk.

There are several ways the current study was grounded within a resilience framework. First, recruitment efforts were made to include mothers who likely experienced economic

hardship. For instance, Head Start centers across the U.S. and social service agencies were contacted and invited to share study information with eligible mothers. Ensuring that extra recruitment efforts were made to reach families across the economic spectrum was important in order to capture potential resilience processes that occur within contexts of adversity associated with limited financial resources. Further, because risk goes beyond limited financial resources, a cumulative risk index was created to capture a multitude of adversities and risk exposure. Finally, it was decided to provide participants with a parenting behaviors measure that specifically tapped into positive parenting (McEachern et al., 2012). Providing the opportunity to capture positive parenting allowed for potential resilience processes to be observed in the present data. Informed by resilience and ecological theories, the conceptual model advanced in the present research considered whether IM contributes to positive parenting strategies.

Summary of Theoretical Foundation

To summarize, this study was grounded within an ecological and resilience framework. Ecological theory situates the family within stratified contexts and centers the variables of interest. Relevant to this research, IM was conceptualized as a distal parenting ideology that permeates through more proximal parenting processes (i.e., parenting stress and positive parenting strategies) which have been demonstrated to connect with children's developmental outcomes. Resilience, which was conceptualized as positive parenting and optimal child outcomes in the face of adversity, was examined by exploring how IM might influence parenting and cognitive development within different levels of contextual risk.

CHAPTER 3: LITERATURE REVIEW

The present study sought to explore the associations between distal parenting beliefs (i.e., IM) and children's developmental outcomes through mediating parenting processes and moderating contexts of cumulative risk. This chapter reviews the empirical literature connected to the constructs central to the current study (i.e., parenting beliefs and behaviors, indicators of maternal distress, and children's developmental domains). First, the history of parenting beliefs and the evolution of modern attitudes toward parenting young children are discussed to provide a comprehensive background for considering IM as a macro-level factor. Next, the implications of IM for mothers and children are considered in conjunction with indicators of maternal distress (e.g., parenting stress) and children's cognitive and social-emotional functioning. Then, the ways that distal parenting ideologies are associated with proximal parenting processes (i.e., beliefs and strategies) and their implications for children's development are reviewed to situate the current study. Finally, previous literature on IM is critiqued with the intentions of illuminating the ways in which is it built upon privileged ideals.

Evolution of Parenting Ideologies

Sociologists have documented the wide shifts in parenting beliefs and attitudes across and within cultures throughout history. Notably, sociologist Sharon Hays (1996) sought to comprehensively document parenting attitudes and changes in parenting expectations, particularly for mothers, within the 1900s. Hays (1996) examined the history of parenting and child rearing practices, analyzed texts of best-selling parenting manuals for underlying themes, and conducted interviews with 38 mothers of two-to four-year-old children to explore modern parenting attitudes. Hays' work detailed the evolution of parenting attitudes that ranged from dismissive mindsets about children to a more intensive ideology of parenting in which children

are highly valued and central to the family. For instance, children were viewed as innately evil, animalistic, and fragile during the Middle Ages, and they were often abused and neglected (Hays, 1996). It was not until the seventeenth and eighteenth centuries that views towards children started to shift to resemble more current feelings about children. That is, European society, and the wealthiest families at that, soon began to view children as innocent and of needing protection from the evil ways of the world though these attitudes had not yet been embraced within the American colonies (Hays, 1996). In contrast, children in colonies in the seventeenth and eighteenth centuries were still largely ignored, subject to harsh discipline, and made to participate in family work life (Hays, 1996). Hays (1996) explained that attitudes about young children did not begin to evolve to resemble contemporary beliefs until the late eighteenth and early nineteenth centuries in America. During this timeframe, children increasing became a source of pride and happiness for families; discipline and childrearing strategies shifted from harsh and punitive, to more sensitive (Hays, 1996). Noticeable, too, was the transition of the perspectives about the maternal role during this time frame. Previous eras did not regard women as morally responsible for young children, nor inheritably nurturing. It was not until the late eighteenth and early nineteenth centuries that mothers were valorized and deemed responsible for ensuring young children were taught how to be moral and conscientious. Hays (1996) described this period as a transition to the onset of "Labor-intensive techniques of ongoing psychological manipulation intended to instill conscience replaced the rod and externally imposed discipline" (Hay, 1996, p. 29). Finally, by the end of the nineteenth century, *childrearing* was synonymous with *motherhood*, meaning that mothers were completely responsible for raising children as it was a part of their maternal identity (Hays, 1996). These shifts within the centuries and decades evolved to contemporary parenting attitudes.

Contemporary Parenting Ideologies

Modern parenting beliefs, as first described by Hays (1996) involve the idea that children are precious and that mothers must focus on their emotional and cognitive needs. In essence, parenting and family life are considered to be child-centric and appeared to be foundational to contemporary parenting attitudes. Indeed, Hays' work on IM was later extended by sociologists whose work built on thematic content around the intensity of modern parenting that was characterized by a hyper-awareness for children's developmental needs, and the implications of such attitudes for families (see for example, Arendell, 2000; Lareau, 2003; Ishizuka, 2019). Perhaps the most notable work that connected with Hays' IM framework, Annette Lareau's (2003) "Unequal Childhoods" explored the role of social class in shaping parenting beliefs and strategies among a sample of 88 racially and economically diverse families. Lareau (2003) engaged in qualitative interviews with all 88 families and then selected 12 families (six African American and six white) from the initial pool for a more intense ethnographic investigation into modern parenting beliefs and practices. Observations and interviews with the subsample of 12 families included a form of intense study in which the research team spent the majority of 3 weeks (including overnight visits) with families in their day-to-day activities. Based on these interviews and observations, Lareau (2003; 2011) argued that social class contributed to two distinct parenting approaches for parents with elementary aged children: concerted cultivation and the accomplishment of natural growth. These parenting approaches were believed to organize key dimensions of day-to-day family life, language, and social connections.

Concerted cultivation, a parenting style mostly associated with middle-and-upper -class white families, involved engagement in more structured, child-centered time in which parents were actively interacting with their children or structuring children's activities. Behaviors

associated with the concerted cultivation parenting style included negotiations and reasoning between parents and children, the use of open-ended questions and other methods to expand on children's language and cognitive skills, as well as parental advocacy and participation in institutions (e.g., schools). Children's participation in adult led, peer-based activities such as team sports and extracurricular clubs that were believed to support school success were also central to concerted cultivation parenting strategies. These behaviors were broadly orchestrated by parents and focused on a highly scheduled daily life and "parent-approved" social connections that were viewed as advantageous. Concerted cultivation was consistent with IM inspired practices in terms of the importance of cognitive and physical stimulation of children and the building of social capital via parent-facilitated social connections.

In contrast to concerted cultivation, Lareau (2003) found the accomplishment of natural growth style was more common among working class families. This parenting style involved less structure around children's leisure time resulting in more free play in the home and neighborhood for children. The accomplishment of natural growth was also characterized by less parental involvement in child activities, a greater use of directives (e.g., telling children what to do without the provision of choices), less use of negotiations with children, and more passive involvement with institutions. Family life in the "natural growth" scenario tended to revolve around the home and informal social and kin ties (Lareau, 2003; Lareau, 2011). As Lareau (2003; 2011) described, children from working and poor class families spent their time playing outside with friends and cousins while children from middle-class families were engaged in adult-directed and supervised activities.

Through the use of case exemplars, Lareau (2011) discussed the implications of these different parenting styles in terms of children's developmental trajectories-namely that a sense of

entitlement emerged among children from homes characterized by concerted cultivation. This sense of entitlement appeared to allow middle-class children to pursue their own individual preferences and advocate for themselves in institutional settings (Lareau, 2011). Lareau described these children as informed, assertive, and comfortable interacting with adults and institutions (Lareau, 2003; 2011). On the other hand, Lareau described the interactions of the working-class families and children as cautious, tentative, and "constrained." These children were less likely to make demands of their parents or people in some position of power, such as doctors, and were less likely to advocate for their individual preferences.

Natural growth and concerted cultivation approaches to parenting each had their own implications for children. For instance, natural growth certainly seemed advantageous to children in terms of having more leisure time and free play, which may have contributed to the overall sense that these children, as described by Lareau, were more creative and found more pleasure in leisure time than middle-class children. Still, "natural growth children," in general, had less favorable outcomes throughout high school and early adulthood, such as a higher likelihood of dropping out of school and having more negative experiences with the justice system than their concerted cultivation peers (Lareau, 2011). "Concerted cultivation children" were able to advocate for themselves and felt comfortable making demands of their parents and other adults but these characteristics are also not considered appropriate in many cultures and settings (Lareau, 2011). These children also appeared to be overscheduled, were unlikely to take risks, and generally seemed to be extrinsically motived. However, these children were more likely to excel in academics and enroll in 4-year college institutions. Still, Lareau's work was qualitative thus the causal significance of social class and parenting attitudes as they related to child outcomes cannot be known. Indeed, Lareau (2003; 2011) suggested that it was truly social class

that contributed the most to her study participants various outcomes, not necessarily the parenting styles of concerted cultivation or accomplishment of natural growth. Further, Lareau and Hays' early work on parenting attitudes and expectations largely neglected intersecting identities and failed to move beyond monolithic comparisons of poor versus economically privileged families. Still, recent evidence suggests that the IM ideology is largely embraced by many parents in Western cultures, regardless of race and other demographic characteristics such as economic status (Arendell, 2000; Ishizuka, 2019) warranting further examination of the ways in which IM attitudes connect with family life.

IM and the "Good Mother"

Since its inception, intensive mothering, or "intensive parenting", has been documented as a dominant parenting discourse in North American culture (Arendell, 2000; Ishizuka, 2019). In other words, many parents in the United States believe that intensive parenting practices, such as laboriously focusing on cultivating young children's development, equates with "good parenting." For instance, Ishizuka (2019) developed a large, nationally represented study to document current beliefs about parenting in the United States. Utilizing vignettes that described parenting behaviors which represented either concerted cultivation or accomplishment of natural growth parenting styles per Lareau (2003), Ishizuka (2019) found that most parents rated concerted cultivation behaviors as the best parenting practices regardless of parent gender, child gender, race/ethnicity of respondents, or socioeconomic status of respondents. Similarly, Craig and colleagues (2014) documented the trends towards intensive parenting ideology using time survey data in Australia from 1992 through 2006. They found that parents, regardless of educational background, spent more time in child-centered activities in 2006 than they did in 1992. Even more, fathers were found to spend more time in childcare activities than in 1992,

suggesting that intensive parenting is not only believed to equate to "good parenting," but aspects of it (e.g., engaging in intellectually stimulating conversations with children) may also be performed by both mothers and fathers. Still, contemporary beliefs reflect the important role of the mother in childrearing practices. These expectations for mothers, and more broadly, women, are evident in part by depictions of mothers in the mass media (Kuperberg & Stone, 2008). For instance, magazines frequently portrayed working mothers negatively from the late 1980s through the late 1990s and seemed to infer that women ought to provide day-to-day care for young children as opposed to working outside of the home (Smith, 2001). As reviewed, Hays detailed these shifts in Western parenting beliefs and coined this general approach to parenting as "intensive mothering" (Hays, 1996). Despite gains made by women in the employment sphere, she described a cultural, gendered model of parenting whereby women were still viewed as central to children's care and upbringing to be the most accepted in American culture. Still, Hays (1996) acknowledged that IM mainly represented white, middle-class families as opposed to racially diverse and economically strained families, but that middle-class parenting attitudes (i.e., IM) were the most visible to U.S. parents in terms of media representation, parenting books, and parenting policies, and thus set a general standard for how "good parenting" was conceptualized. Indeed, IM is portrayed in mass media and educational campaigns more often than other types of parenting attitudes (Romagnoli & Wall, 2012). In fact, recent studies have found that mothers' exposure to childrearing information and celebrity mothers on social media platforms predicted higher IM attitudes (Chea, 2015) and that such media exposure was associated with mothers' commitment to being a part of their children's education (Filik-Uyanık & Demircan, 2021). The widespread media exposure and educational embrace of IM, despite some families lack of economic and social support needed to obtain such high parenting expectations, may explain

why IM attitudes and beliefs are endorsed as "good" across most families in the U.S. (Forbes et al., 2020; Ishizuka, 2019).

The notion of "good parenting" has been explored in depth in previous research that support recent findings that suggest intensive parenting, or IM, is regarded as ideal parenting by mothers and fathers in the United States (Forbes, 2020; Ishizuka, 2019). Still, these expectations are especially prominent for mothers. For instance, participants in Johnston and Swanson (2006) largely described parenting practices that reflected IM assumptions which centers children in day-to-day life and positions mothers as responsible for childrearing. These practices included accessibility (i.e., close proximity to children), self-sacrifice, patience, empowerment, and focused attention [on children] for mothers (Johnston & Swanson, 2006). Omnipresent accessibility of the mother was especially salient in mothers' narratives about parenting. Johnston and Swanson described, "the meaning of accessibility was tied to a belief that the presence of the mother keeps the child on the path of moral rectitude and that the child's behavior is a reflection of the mother" (p. 513). In this sense, mother's childrearing practices were not only intended to cultivate young children's behavior, but also to uphold mothers' reputation of being "good mothers". In fact, other research connects IM assumptions, mainly that children need constant attendance by mothers, with good parenting. Wall (2010) interviewed highly educated, upper-middle class, and mostly white mothers about their experiences with the IM discourse and the connection IM has with ideals related to good mothering. To these mothers, IM meant being cognizant of the educational experiences their children were exposed to (e.g., high quality daycares), providing enrichment activities, cultivating children's interests, and providing opportunities to expand on children's thinking and reasoning.

Contemplating the pressure that mothers seem to face in light of IM expectations, it is reasonable to consider how mothers might internalize IM beliefs. Indeed, IM is a gendered model of parenting that is centered on expectations of mothers in regard to their childrearing practices. Historically, women have been regarded as the primary parents of young children and deemed responsible for their moral and academic development (Arendell, 2000; Budds et al., 2017; Hays, 1996). Despite evidence that men engage in more caregiving tasks than they had in the past (Craig et al., 2014), women still spend substantially more time in childcare activities. In fact, mothering, in comparison to fathering, involved more multitasking, more physical labor, and more responsibility for overall care despite full-time employment status (Craig, 2006). Moreover, the burden of multitasking was experienced more negatively by mothers than fathers—probably because mothers multitasking activities included more housework and childcare than fathers (Offer & Schneider, 2011). Holding more household and family responsibilities, including IM expectations relative to attending to children's developmental growth, likely has a bearing on women's mental health and general wellbeing. Indeed, mothers experienced more stress, depression, and work-family conflict than fathers in a study on multitasking in dual-earner families (Offer & Schneider, 2011). Similarly, in a study involving IM and maternal wellbeing, Meeussen and Van Laar (2018) suggested that IM norms place extreme pressure on women to be "perfect mothers." In efforts to reach and maintain "perfect mother" expectations, mothers engaged in gatekeeping behaviors to monitor partners' efforts at parenting. In other words, mothers attempted to limit or direct male partners attempts to parent in order to ensure that parenting was at IM standards of perfection. Meeussen and Van Laar (2018) found that maternal gatekeeping significantly mediated the relationship between efforts to be perfect mothers with parental burnout. That is, the extent that mothers engaged in gatekeeping

behaviors with their male spouses was associated with more maternal burnout. Even more, higher reports of IM attitudes were associated with more maternal gatekeeping behaviors (Meeussen & Van Laar, 2018). This paradox— gatekeeping to assert the image of the good mother at the expense of one's own emotional wellbeing—may be explained by the desire to avoid feelings of inadequacy because the role of the mother is central to many women's identities (Liss et al., 2013). Similarly, Wetherell (1997) posited that women may feel a stronger sense of moral responsibility to care for children than men, which may explain why mothers experienced more parental anxiety (Shirani et al., 2012).

These findings suggest that IM may be experienced by mothers to a different degree than fathers. Indeed, Shirani and colleagues (2012) investigated how fathers experienced intensive parenting and found that, despite evidence that fathers are engaging in more childcare practices, they are generally protected from intensive parenting discourses. In fact, fathers placed particular emphasis on making autonomous parenting decisions as opposed to following expert-guided parenting advice, a tenant central to IM (Shirani et al., 2012). Given this evidence, it is likely that fathers experience fewer negative mental health outcomes or stress associated with parenting pressure than mothers. In fact, mothers may be burdened even more so now in the height of a global pandemic than in recent decades. The global crisis has resulted in school and daycare closures thus rendering women responsible for more childcare than before the pandemic (Alon et al., 2020). Historical trends of placing the responsibility for childcare primarily on mothers and the recent global health crisis likely has important implications for women as they relate to IM beliefs and maternal wellbeing, and thus have potential implications for families.

IM: Implications for Families

The plethora of research on the salience of IM beliefs supports the need to further consider how these distal parenting attitudes connect with more proximal family processes. Given that IM is a gendered model of parenting that places mothers, as opposed to fathers, in a particularly central role within the childrearing context, IM likely has important implications for mothers. Similarly, considering that IM is, at the core, a broad set of beliefs regarding childrearing expectations, IM then likely has implications for children through mediating proximal processes connected to mothering. Indeed, IM attitudes were associated with maternal distress (e.g., Rizzo et al., 2013) which has obvious implications for mothers, as well as cascading effects for children. Additionally, IM attitudes had implications for the ways mothers engaged in caring for their children (i.e., parenting behaviors) (e.g., Paat, 2010; Schiffrin et al., 2015) which could have consequences for children's developmental trajectories. These processes—maternal distress and parenting behaviors—are considered in more detail in conjunction with their influences on children's developmental outcomes.

Maternal Distress

Maternal distress has been broadly defined as depression and unhappiness in women with children (Arendell, 2000) and is implicated in an array of problematic outcomes such as poor parenting or comprised developmental outcomes in children (Arditti et al., 2012). Key facets that pertain to maternal distress include parenting stress, defined as the adverse reactions to the demands of being a parent (Deater-Deckard, 1998), guilt, and depression (Arditti et al., 2012). Given the intensity of IM expectations, it is theoretically likely that IM contributes to indicators of maternal distress. Indeed, building on previous work, Rizzo and colleagues (2013) examined the relationship between IM attitudes and depression, stress, and low life satisfaction in mothers

through quantitative methods. They hypothesized that IM beliefs would contribute to more depression and general stress in a sample of 181 mothers of children aged 5 and under. Depression, measured via The Center for Epidemiologic Studies-Depression Scale, and stress, measured by The Perceived Stress Scale, was indeed related to increased levels of depression and stress in mothers who endorsed specific IM attitudes (Rizzo et al., 2013). Specifically, Rizzo and colleague used the Intensive Parenting Attitudes Questionnaire (IPAQ; Liss et al., 2012) to assess respondents' beliefs relevant to IM assumptions, such as "mothers are the best caregivers for children", "parenting should be fulfilling", "children should be cognitively stimulated by parents", and "children come before parents' own wants and needs." After controlling for social support, researchers found that mothers' beliefs in IM assumptions were related to lower life satisfaction and more depression and stress (Rizzo et al., 2013). The central belief that parenting young children is challenging was especially predictive of mothers scores on a measure of depression and general stress, even beyond perceptions of family support (Rizzo et al., 2013).

Other research has also demonstrated a clear association between IM attitudes and negative mental health outcomes for mothers. For instance, Meeussen and Van Laar's (2018) study on IM attitudes, maternal gatekeeping behaviors, and maternal distress amongst a sample of 169 fulltime working mothers in the United Kingdom and United States revealed that pressure to be perfect mothers, which they conceptualized as IM standards, was related to parental burnout through the mediating effects of parenting stress and maternal gatekeeping behaviors. Maternal gatekeeping, defined as women's efforts to manage and/or restrict partners' involvement in household and childcare tasks, was described as a behavior regulation strategy that may help mothers 'live up' to the image of the perfect mother, but which may have costly consequences over time. Gunderson and Barrett (2017) found that mental health outcomes in

mothers who had attitudes about parenting that were complimentary to IM were somewhat mixed. In particular, data from 1,388 middle-aged mothers revealed that higher investments in children predicted better mental health outcomes in mothers while, on the other hand, providing children with high-levels of emotional support was related to worse outcomes.

Increased stress in mothers who ascribe to IM beliefs may be preceded by or experienced in conjunction with maternal guilt. Guilt is conceptualized as the emotional response to failing to attend to specific responsibilities (Elvin-Nowak, 1999), such as certain parenting behaviors and which could have consequences for children. For instance, maternal reports of guilt were associated with parent emotional maladjustment (i.e., depression, stress, and anxiety) which had indirect effects on reported child behavior problems and lower levels of children's behavioral adjustment (Haslam et al., 2020). As discussed, mothers tend to be held responsible for children's developmental growth more so than fathers so they may be especially susceptible to guilt and parenting stress as they relate to attempts to keep up with the demands of modern, IM standards. For example, Wall (2010) conducted in-depth interviews with highly educated, full-time working mothers about activities their children were enrolled in, their experiences with childrearing advice centered on children's brain development, and their general beliefs about what constitutes "good motherhood". Qualitative interviews revealed that guilt was especially salient in mothers' narratives about how much time they left their children to play independently rather than engaging in play with them (Wall, 2010). For instance, a single mother of two children described that she felt guilty for observing and commenting on her children's play while she did household chores. She lamented that she might have more time to play with her children if she spent less time tending to household responsibilities. Other mothers' echoed similar sentiments that suggested mothers' ought to be ever-present and engaging with children.

Guilt and stress also extended to decisions around children's involvement in extra-curricular activities, unstructured play time, and quality family time. Although mothers in the Wall's (2010) study described reservations about over-enrolling young children in structured extra-curricular activities they still tended to do so, perhaps to fulfill IM expectations related to cultivating young children's skills. Mothers that resisted enrolling their children in multiple activities or otherwise restricted children's involvement in extracurriculars described feeling guilty or inadequate despite following their intuition that too much overscheduling might add unwarranted stress for their children and themselves. Indeed, stress associated with parenting was also salient in mothers' narratives. Mothers detailed specific decisions that reflected their general beliefs that good motherhood entailed IM attitudes, but which ultimately contributed to feelings of stress associated with parenting. For example, they described cutting back on paid work hours and sleep so that they could have more time to do chores, such as house cleaning and grocery shopping, in order for them to arrange for uninterrupted, quality family time. Mothers described feeling stressed and exhausted from trying to keep up with parenting demands in conjunction with work and household responsibilities (Wall, 2010).

Considering that IM positions children as vulnerable in that they cannot make cognitive gains without adult intervention (Hays, 1996; Wall, 2010), the belief that children ought to be constantly tended to by parents may explain why some mothers felt especially stressed for their perceived shortcomings in meeting IM standards while juggling home and workplace responsibilities. Indeed, cultural contradictions around mothering and women's professional identities seem to be connected to cultural prescriptions about IM and which contribute to mothers' experiences of guilt and stress. One woman in the Budds et al. (2017) study of how new mothers provide stimulating interactions for their infants, described tension between her

desire to keep her individual identity that was separate from motherhood (e.g., her professional self), with the societal pressures for her to be an intensive mother. She described feelings associated with guilt and shame in her narrative about not meeting the standards of "good motherhood" because of her commitment to her professional identity (Budds et al., 2017). Likewise, employed mothers experienced guilt in their negotiations of finding personal time for themselves without children, such as hiring a babysitter for a few hours to attend a movie (Elvin-Nowak, 1999). These mothers felt guilty that they took time for themselves instead of spending it with their children. Even mothers who seemed less ambivalent about taking time for themselves ultimately justified it for the benefit of their children. For instance, several working mothers emphasized that their personal time was necessary in order for them to be good mothers. In other words, they justified "me time" as a means to tend to their mental wellbeing which in turn helped them to parent in ways they perceived as better for their children (Elvin-Nowak, 1999). These sentiments were echoed by highly-educated mothers of preschoolers who described desires to tend to their own needs without feeling guilt (Budds et al., 2017).

In all, it appears that IM standards are especially inaccessible to working mothers. In fact, mothers seem to receive mixed messages from popular media regarding women's work status and how it connects with "good mothering" which could contribute to their experiences of stress and other maternal distress indicators. Media (e.g., films and advertising) widely depicts mothers as key family figures, responsible for the childcare and household responsibilities (Guendouzi, 2006) that compete with mothers' abilities to maintain work status and personal time. Johnston and Swanson (2004) described ambivalent feelings around mothers' employment versus staying at home to tend to children fulltime resulted in distress. These cultural contradictions, or expectations that mothers ought to provide excessive time into caring for their children while

simultaneously engaged in paid employment was discussed in detail by Hays (1996) in her introduction of IM. But how might IM standards also be inaccessible to mothers facing a multitude of risks, such as low financial and material resources? While previous literature has clearly articulated that IM ideals about the necessity of constant, engaged, and developmentally stimulating mothering for children to thrive likely contributes to parenting stress and reinforces women's guilt about how to manage employment as well as self-care in the face of caregiving demands, very little is known about how IM is experienced within families with contextual risks. Given evidence that parenting stress may be experienced at higher degrees within families characterized by various risk factors (e.g., Steele et al., 2016), it is reasonable to assume that the potential relationship between IM attitudes and parenting stress could be even more salient for mothers in high-risk scenarios. In addition, the mediating effects of parenting stress (as well as other indicators of distress) should be considered in relation to children's development.

Child outcomes: The Role of Maternal Distress. Research on the implications of IM attitudes for families is in its infancy but there is evidence that IM is associated with women's psychological distress—namely parenting stress and depression for mothers. Not only is this concerning with regard to mother's health outcomes and life satisfaction, but IM and its corresponding maternal psychological effects carry implications for children. A substantial body of evidence implies that indicators of maternal distress significantly influence specific child cognitive and social – emotional outcomes and general child wellbeing through direct and indirect effects (e.g., Belsky, 1984; Ewon Choe et al., 2013; Ciciolla et al., 2014; Goodman & Tully 2006; Goodman et al., 2020). In fact, previous research has demonstrated significant direct effects of maternal depression on cognitive and behavior outcomes for infants, young children, and even adolescents (Bernard-Bonnin, 2004; Goodman, 2007; Goodman et al., 2020). For

instance, in a comprehensive review and meta-analysis, Goodman and colleagues (2020) condensed evidence of the effects of maternal depression on children's development, including implications for children's affect, cognitive functioning, and interpersonal relationships. They found that children were more likely to be depressed themselves if their mothers were also depressed, and they were more likely to have anxiety (Goodman, 2007; Goodman et al., 2020). Further, maternal depression was associated with significantly more aggression and other externalizing problems, such as behavior disorders, in preschool-aged children (Goodman, 2007). These implications appeared to be even more significant whenever families experienced economic hardship. That is, contexts of poverty seemed to exacerbate the relationship between maternal depression and children's functioning (Goodman et al., 2020). In other words, maternal depression more strongly undermined children's functioning within low-resourced families.

While maternal distress has direct effects on children's developmental outcomes, other research has explored mediating mechanisms, such as parenting behaviors, that help explain the relationship between indicators of maternal distress and children's social-emotional and cognitive outcomes. It has been assumed, for instance, that mothers with depression or higher levels of parenting stress are sometimes limited in their capacity to parent their children in ways that are optimal for children's development. Goodman and colleagues (2020) were the first to test a model through a meta-analysis that placed parenting behaviors as the mediating factor between maternal depression and children's outcomes. Through structural equation modeling and a sample of 25,950 mothers, Goodman et al. (2020) found moderate support for their model. That is, they found evidence that positive and negative parenting behaviors served as mediators between the associations of maternal depression and a broad range of child functioning outcomes. In other words, maternal depression limited mothers' capacities to engage in positive

parenting practices, such as warmth, which hindered children's functioning (Goodman et al., 2020). In addition to depression in mothers, maternal reports of guilt were associated with maternal distress (i.e., depression, stress, and anxiety) which had indirect effects on reported child behavior problems and emotional adjustment (Haslam et al., 2020).

Depression and guilt in mothers may be experienced in conjunction with parenting stress which also has implications for children's adjustment. Parenting stress is unique from general experiences of stress in that parenting stress is directly related to parenting responsibilities and experiences (Deater-Deckard, 1998; Deater-Deckard, 2004). There are two pathways that researchers typically examine in relation to child developmental outcomes and parenting stress: direct effects of parenting stress on indicators of children's functioning, and indirect effects of parenting stress on child outcomes typically explained through parenting behaviors (for reviews, see Crnic & Low, 2002; Deater-Deckard, 1998). For instance, Mak and colleagues (2020) examined the relationship between parenting stress, parenting behaviors, and children's behavior adjustment amongst a sample of Chinese mothers and fathers of preschool-aged children. They found that parenting stress predicted more negative parenting practices, such as yelling at children when they misbehaved and threatening children with physical punishment. In turn, negative parenting partially explained variation in children's behavior outcomes (Mak et al., 2020). Similarly, Anthony and colleagues (2005) investigated the influence of parenting stress on children's internalizing and externalizing behavior problems amongst a sample of 229 African American mothers and children (aged 2-4). Through parent and teacher reports, they found that parenting stress was significantly and negatively associated with children's social competence, and positively associated with children's internalizing and externalizing behaviors. Even more, parenting behaviors, measured with the Parenting Behaviour Checklist (Fox, 1994) did not

significantly mediate this relationship- that is, parenting stress explained variation in children's functioning above and beyond parenting behaviors (Anthony et al., 2005). Still, the majority of research examining the associations between parenting stress and child developmental outcomes has typically been cross-sectional. To fill this gap in the literature, Mackler and colleagues (2015) conducted a longitudinal study of parenting stress and children's externalizing behavior problems across the span of 4 years whenever children were 4, 5, 7, and 10 years old. Importantly, they found that mothers experiences of parenting stress positively and significantly predicted children's externalizing behavior problems across all four timepoints. Additionally, Mackler and colleagues (2015) found strong support for their transactional model which demonstrated direct effects of children's externalizing behavior problems and parenting stress. In other words, parenting stress not only affected child behavior problems, but children's externalizing behavior problems also affected parenting stress. These findings are crucial to consider given the potential implications IM expectations have for mothers' psychological wellbeing, namely parenting stress.

To summarize, IM has implications for the way mothers perceive their effectiveness in parenting (i.e., "the good mother") and for which strategies and behaviors they use to parent their young children. Both of these—mothers internalized feelings related to their role as mothers and certain parenting behaviors that may be influenced by mothers' experiences with indicators of maternal distress— subsequently influence children's developmental trajectories. Still, IM situates children as vulnerable and of needing warm, maternal support in order to thrive (Hays, 1996). The prevalence of IM attitudes, then, may encourage certain parenting behaviors with the end goal of giving children opportunities to flourish. This paradox—that IM beliefs are associated with indicators of maternal distress, and that IM beliefs may encourage positive

parenting behaviors—must be explored to holistically understand the implications of the IM discourse.

Parenting Beliefs and Parenting Behaviors

Parenting, and mothering in particular, has long been seen as central to positive cognitive and social – emotional development for children. The connection between IM beliefs and specific parenting behaviors has not been well established within the literature, perhaps due to methodological decisions on how IM beliefs may be operationalized, which is discussed in detail in a later section of this document. Still, general parenting beliefs and parenting behaviors have been determined to be interdependent within the extant literature. That is, parenting beliefs inform specific parenting behaviors and vice versa (Barnett et al., 2012; Sigel & McGillicuddy-De Lisi, 2002; Tudge et al., 2000). Still, developmental researchers tend to focus independently on either parenting beliefs or parenting behaviors without considering them jointly in respect to child developmental outcomes (Barnett et al., 2012). Barnett and colleagues (2012) advanced the developmental literature by considering the joint contributions of parenting beliefs and behaviors. In a sample of 185 racially and economically diverse participants, Barnett and colleagues (2012) tested a model linking parenting beliefs, centered on discipline and spoiling, and behaviors, defined as sensitive and negative parenting, with children's internalizing and externalizing behavior problems within varying degrees of cumulative risk. They found that the inclusion of parenting beliefs and behaviors within their model, as opposed to their individual contributions, better predicted child developmental outcomes.

Based on empirical evidence and theory that supports the linkages between parenting beliefs and parenting behaviors, it can be inferred that mothers who tend to have parenting beliefs that align with IM will also demonstrate parenting behaviors or strategies that

theoretically connect with IM. For example, *attachment parenting* is described as an approach to parenting in which caregivers' intensely focus on their child's needs and desires and which inform specific parenting practices (Liss & Erchull, 2012). In fact, attachment parenting has been described as a detailed parenting style derived from broader IM beliefs (Faircloth, 2013). There certainly are similarities between attachment parenting and IM that would render the assumption that attachment parenting may be informed by larger IM attitudes. For instance, those who endorse attachment parenting believe that there is a biological connection between the mother and infant and that infants and young children can communicate their needs to mothers through non-verbal cues. These beliefs connect with the assumption in IM that mothers are especially suitable, as opposed to men, to care for young children and set the foundation for attachment parents' caregiving. Attachment parenting and IM also situates the child in the center of day-to-day family life, hold sentiments that children are to be treasured, and that maternal behaviors (i.e., parenting practices) are extremely important in the development of the child.

These core attitudes towards parenting may influence parenting behaviors that ultimately connect with children's developmental outcomes. For instance, authors of a popular attachment parenting book, *The attachment parenting book: A commonsense guide to understanding and nurturing your baby* (Sears & Sears, 2001), outlined seven "tools", deemed the "Baby B's" that direct parents, and mainly mothers, decisions on early caregiving: birth bonding, breastfeeding, baby wearing, bed sharing, belief in babies cries, balance and boundaries, and beware of baby trainers. These specific parenting strategies, which are informed by attachment parenting beliefs, may have implications for children's developmental trajectories. For example, room sharing, though not necessarily bed sharing, is one foundational parenting practice associated with attachment parenting. Researchers found that room sharing with infants was associated with

more prosocial behaviors when children were 8 years old (Beijers et al., 2019). Likewise, responsive, consistent parenting behaviors, which relates to the belief in constantly attending to babies and maintaining close contact with infants in attachment parenting, had long-term benefits for children's cognitive and language skills (Landry et al., 2001). In another study, Narvaez and colleagues (2013) considered parenting practices found within attachment parenting from an evolutionary perspective amongst a sample of 682 diverse group of mothers of children (58% adolescent mothers; 5% African American, 19% European-American, 15% Hispanic-American, and 1% other). Narvaez et al. (2013) focused on caregiving practices performed by mammals and evolved on by humans across 30 million years to present day caregiving practices in their study which began during the prenatal phase until children reached the age of 3. Specifically, maternal responsivity, breastfeeding, touch, and maternal social support were key variables in their longitudinal study on children's prosocial behaviors, behavior problems, and cognitive abilities. They found that all core constructs (i.e., responsivity, breastfeeding, touch, and social support) were indeed associated with optimal child outcomes, although these variables had different implications across various time points. The emphasis on maternal behaviors in Narvaez et al. (2013) aligns with the ways IM elevates mothering and assigns primary caregiving responsibilities to women. Collectively, these findings support the need to further consider how IM beliefs connect with specific parenting behaviors which may influence young children's development.

Parenting Strategies: Implications for Children. At the heart of IM is the belief that children need their mothers in order to successfully develop—that is, children need maternal intervention to gain skills critical to academic and general success. IM then, similar to attachment parenting, likely informs certain parenting behaviors that would theoretically

correspond to the underlying goals of IM (i.e., parenting successful children). The achievement of the goal of raising successful children, then, can be determined by examining children's developmental outcomes. Broadly, in the developmental, quantitative literature, child outcomes involving cognitive development and social – emotional adjustment receives a great deal of attention and are believed to be the key building blocks of children's long term academic success (e.g., Denham et al., 2014; Fay-Stammbach et al., 2014; Mann et al., 2017; Tronick, 2007). Terminology related to these broad constructs are worth discussing to situate the following review of parenting behaviors and their influence on child developmental outcomes.

First, cognitive development encompasses the study of children's neuro(cognitive) outcomes (de Cock et al., 2017). Children's cognitive functioning is often measured through specific variables, such as executive functions, that contribute to overall academic or intellectual success (Garon et al., 2008) and which are related to children's social – emotional outcomes. Executive functions are specific higher order processes, including working memory, inhibitory control, and cognitive flexibility that promote adaptive behaviors and which relate to later academic success (Fay-Stammbach et al., 2014; Monette et al., 2011; Müller et al., 2008). "Executive functioning" or "executive function" (EF), then, is the umbrella term used to capture overall cognitive functioning represented by more than one executive function (Diamond, 2013; Fay-Stammbach et al., 2014). EF is a core indicator of overall cognitive functioning and academic success. For example, Ten Eycke and Dewey (2016) found that parents of children between the ages of 5 and 18 reliably reported on children's EF, which related to children's performances in attention, reading, and mathematics. EF was also associated with preschool-aged children's academic achievement (Blair & Razza, 2007; Clark et al., 2010). These findings

not only support parent-reports of children's EF, but they also provide more support for using EF as indicators of children's overall cognitive development.

Next, children's social-emotional development is also central to children's overall adjustment and academic success, and therefore key to the examination of IM beliefs and parenting behaviors in regard to their potential influences on children's trajectories. For instance, EF connects with children's behavior (i.e., children's adjustment) in that they include the specific skills needed to direct action—that is, EF include the skills needed to control behavior. This mechanism can be best understood through the concept of children's self-regulation. Self-regulation is a concept that encompasses the processes through which children manage attention and behaviors to guide goal-directed activities (Korucu et al., 2017). Executive functions lay the foundation for which children's self-regulation skills are achieved and through which adaptive and appropriate behaviors are used (Korucu et al., 2017; Miyake et al., 2000; Riggs et al., 2006; Vohs & Baumeister, 2015). In other words, children's social-emotional skills and cognitive abilities are largely interdependent, and in fact, EF is often measured through behavioral manifestations.

Parenting Strategies: The Role of IM. Parenting strategies (i.e., behaviors), which are likely informed by larger attitudes about parenting, have long been documented as having direct and indirect effects on children's cognitive and social-emotional outcomes (Fay-Stammbach et al., 2014; Goodman et al., 2020) yet research centered specifically on IM beliefs, parenting behaviors, and their ultimate connection with children's abilities is limited. Still, scholars have concluded that IM attitudes do indeed seem to inform some parenting decisions (e.g., Elliot et al., 2015; Paat, 2010; Schiffrin et al., 2015; Walls et al., 2016), which may have important implications for children's social-emotional and cognitive skills. For instance, in a quantitative

investigation of IM beliefs, parenting strategies, and child outcomes, Schiffrin and colleagues (2015) found support that IM informs certain parenting decisions among a sample of 241 parents (gender of parents was not specified). In particular, enrolling young children in extra-curricular activities was one such strategy that parents with IM attitudes enacted with the goal of boosting their children's physical and cognitive development. Schiffrin and colleagues (2015) hypothesized that parents who scored higher on a measure of IM attitudes would be more likely to try to predict challenges their children may face in the future and thus enroll them in extracurricular activities to help children learn skills needed when such challenges would arise. In particular, Schiffrin et al. (2015) conceptualized "anticipatory problem solving" as a form of overparenting; overparenting was conceptualized as the enactment of IM attitudes. An example from the 12-item measure meant to capture behaviors operationalized from IM attitudes (Liss et al., 2012) included: ''I try to help my child steer clear of any troubles that s/he might encounter in the world" (Schiffrin et al., 2015, p. 2326). IM beliefs, then, was enacted through anticipatory problem solving which was operationalized by enrolling preschool aged children in extracurricular activities. Indeed, Schiffrin et al. (2015) found that mothers who were categorized as "intensive" based on the Intensive Parenting Attitudes Questionnaire (IPAQ; Liss et al., 2013) were more likely to enroll their children in creative and physical activities, such as music lessons and sports. However, children enrolled in enrichment activities did not demonstrate any developmental advantages in comparison to other children. In fact, Schiffrin and colleagues (2015) proposed that scheduling young children in structured activities believed to promote children's development may detract from children's time for unstructured play. Indeed, other researchers have also questioned whether young children are over-enrolled in extracurricular

activities at the expense of free play time, which has its own very important benefits for young children (Ginsburg, 2007).

Despite a lack of empirical research that directly tests the associations amongst IM beliefs, parenting behaviors, and child developmental outcomes, parallel literature in family processes and child development gives insights into how certain parenting practices, which could be informed by larger IM beliefs about optimal parenting, connect with children's developmental trajectories. There is consensus within the literature that certain parenting behaviors are especially important in the consideration of children's optimal developmental outcomes. Cognitive stimulation and maternal sensitivity are hallmarks of positive parenting given their influence for positive child cognitive and social-emotional outcomes (Belsky et al., 2007; Bernier et al., 2010; Bernier et al., 2012; Bornstein et al., 2013; Fay-Stammbach et al., 2014; Lugo-Gil & Tamis-LeMonda, 2009). It would be useful to examine the potential associations between these broad positive parenting strategies, which are well established within the developmental literature as having direct effects on children's outcomes, and IM beliefs given the prevalence of IM and the importance of parenting beliefs and behaviors in relation to child developmental outcomes.

Cognitive Stimulation. Cognitive stimulation refers to caregivers' efforts to provide environments believed to enhance children's language and cognitive development (Lugo-Gil & Tamis-LeMonda, 2009). Frequently reading to children, providing children with developmental toys, and scaffolding children's language are some examples of cognitive stimulation which do appear to connect with positive outcomes for children's cognitive development (e.g., Caldwell & Bradley, 1984). Cognitive stimulation appears to be central to IM given Hays (1996) conceptualization of the modern parenting discourse and Lareau's (2003) theory of concerted

cultivation, which suggests that parents tend to their children's cognitive development by engaging in cognitively stimulating behaviors. In fact, qualitative studies situated on the discourse of IM and parenting decisions around quality parenting expectations appear to confer support that mothers engage in cognitive stimulation with their children (Budds et al., 2017; Romagnoli & Glenda Wall, 2012). Considering the centrality of cognitive stimulation within the IM discourse, it could be that IM beliefs motivate parents to provide an intellectually and language-rich environment for young children which may connect with healthy and optimal development. For instance, utilizing open-ended questions to encourage children to elaborate further on their thoughts was a hallmark strategy documented within the families characterized by "concerted cultivation" in Lareau's (2003) observations of parenting. Strategies such as this and others, including reading to children, is referred to as "language nutrition" (Head Zauche et al., 2016). More specifically, language nutrition refers to the belief that an environment must provide sufficient language exposure to flourish children's neurodevelopment (Head Zauche et al., 2016). Through an extensive review involving studies situated on language nutrition in early childhood, Head Zauche and colleagues (2016) did, in fact, conclude that specific parenting strategies for language nutrition were important to children's cognitive outcomes. Specifically, the quantity of words infants and young children hear per day from their caregivers, the number of different words caregivers speak to their child per day (lexical diversity), parent responsiveness in conversation, and parent warmth and sensitivity during talking interactions were some strategies that were of particular importance to children's long-term cognitive success. In other words, these variables were strong predictors of later cognitive abilities (Head Zauche et al., 2016). It could be that IM attitudes contribute to mothers' efforts to provide an intellectually enriching environment through day-to-day interactions with children. In this

manner, despite the potential of IM to contribute to mothers' experiences of parenting stress and other indicators of distress, IM beliefs may also encourage parents to engage in behaviors that positively impact young children.

Maternal Sensitivity. In addition to cognitive stimulation, a plethora of research has documented the importance of parents' sensitivity for young children. Sensitivity "refers to parents' attunement to their children's cues, emotions, interests, and capabilities in ways that balance children's needs for support with their needs for autonomy" (Lugo-Gil & Tamis-LeMonda, 2009, p. 1066). Sensitivity is also defined as warmth and affection in the parent-child relationship (Fay-Stammbach et al., 2014). Maternal sensitivity has important implications for children's cognitive and social-emotional outcomes that appear to extend across the lifespan. For example, maternal sensitivity predicted children's cognitive abilities which were measured through executive functions amongst a sample of 1,292 economically and racially diverse families (Blair et al., 2011). In another study Brooks-Gunn et al. (2002) found that early maternal sensitivity predicted children's cognitive outcomes at age 3. Perhaps more impressive was the findings highlighted by Raby and colleagues (2015) which demonstrated the influence of maternal sensitivity in early childhood appeared to confer benefits that persisted across childhood, adolescence, and adulthood (Raby et al., 2015). That is, maternal sensitivity in early childhood predicted social and academic outcomes for adults through the age of 32 even after accounting for contextual risks and child characteristics (Raby et al., 2015).

Indeed, positive parenting strategies, including maternal sensitivity, appears to be a strong protective factor for children within risky contexts. For instance, Whittaker and colleagues (2011) examined the potential protective role of positive parenting, defined as maternal sensitivity, amongst a high-risk sample of 114 low-income mother-child dyads. Whittaker et al.

(2011) tested a model to better understand the potential mediating role of maternal sensitivity on children's outcomes while considering proximal risks to vulnerable families. Proximal risk was assessed through maternal depression and parenting stress while distal risk was conceptualized as inadequate family resources and family disconnectedness. Maternal warmth, responsiveness, and acceptance made up the latent construct of maternal sensitivity. They found that positive parenting served as a salient protective factor against distal and proximal risk factors for young children's social-emotional outcomes (Whittaker et al., 2011). Still, mothers' abilities to be sensitive and respond to children's needs are threatened by contextual risks, such as parenting stress, ecological stress, and maternal age in that their abilities to engage in positive parenting strategies may be constrained (Booth et al., 2018; Whittaker et al., 2011).

Summary of Implications

Collectively, the literature posits that quality parenting practices confer benefits for young children's developmental growth, and which therefore can be considered as a protective factor in the presence of adversities. It brings to question, then, how broader societal attitudes about parenting young children are potentially operationalized through positive parenting strategies such as cognitive stimulation and the provision of a warm, safe caregiving environment. Indeed, mothers queried about their experiences with the IM discourse placed emphasis on children's social-emotional development and discussed the importance of maintaining a warm, emotionally supportive environment for their children (Romagnoli & Wall, 2012), as well as the provision of a cognitively stimulating environment (Wall, 2010). It may be, then, that IM beliefs not only confer parenting practices aimed at boosting young children's cognitive skills through positive parenting practices, but also tending to children's social-emotional needs and skills through sensitive caregiving. Still, although IM beliefs theoretically

connect with positive parenting behaviors, IM has also been demonstrated to be associated with indicators of maternal distress (Rizzo et al., 2013), thus the influences that IM may have on children's development may be complex and paradoxical. Even more, the literature thus far has largely neglected the potential role of families' social location and risk contexts. It could be that IM is enacted and experienced differently amongst families characterized by diverse contexts of cumulative risk.

Intensive Mothering and Child Outcomes: Considering Context

Ecological theory posits that children are nested within stratified environments, or contexts, that interact to shape children's development (Bronfenbrenner, 1979). Examples of contexts that have been demonstrated to impact children's development through mediating processes include family SES, family resources, and the neighborhood (e.g., Evans et al., 2013). In addition to the need to consider how IM may inform positive parenting practices while also adding to mothers' experiences of parenting stress, the literature reviewed in the previous section leaves room for critically examining family processes within varying economic contexts in relation to IM beliefs and child outcomes. Indeed, the majority of the research on IM and children's development is centered on middle-class, white families with relatively few contextual risks (e.g., Budds et al., 2017; Schiffrin et al., 2015; Walls, et al., 2016) which does not capture variation in how IM may be expressed in more diverse family scenarios. It could be that IM beliefs are more protective for some families than others. For instance, despite evidence that children's developmental outcomes were not significantly enhanced by certain parenting strategies that are motivated by IM attitudes (Schiffrin et al., 2015), other findings suggested that such strategies could be beneficial to some families with economic risk (Covay & Carbonaro, 2010). It may be that the ways in which IM beliefs connect with indicators of maternal distress,

parenting practices, and child outcomes vary according to different socioeconomic contexts, similar to the differential implications of parental disciplinary strategies (c.f., Deater-Decker & Dodge, 1997) or extracurriculars for children.

With regard to parenting strategies most likely to be influenced by IM, such as cognitive stimulation, there is evidence suggesting differential implications based on SES. For example, the cognitive benefits of enrolling children in extracurricular activities were different for children from middle-class backgrounds than they were for youth from low SES contexts (Covay & Carbonaro, 2010). A study by Covay and Carbonaro (2010) provides insight about the potential for differential effects of specific positive parenting behaviors on children. Utilizing Lareau's (2003) concerted cultivation and natural growth scenarios regarding differential parenting based on families' SES to theoretically ground their study, these authors explored the associations between SES, academic achievement and non-cognitive skills with extracurricular activities within a nationally representative sample of 21,260 third-grade children. Noncognitive skills were defined as task persistence, independence, following instructions, working well within groups, dealing with authority figures, and fitting in with peers" (Covay & Carbonaro, 2010, p. 21). In other words, noncognitive skills, as defined by Convey and Carbonaro (2010) largely reflected executive functions. It was hypothesized that extracurricular activities would facilitate the development of noncognitive skills which would in turn connect with higher academic achievement.

Theoretically, it makes conceptual sense that noncognitive skills, or skills that largely reflect executive functions, would positively connect with higher academic success given executive functions serve as predictors of later academic achievement (Diamond, 2013). Covay and Carbonaro (2010) predicted, based on Lareau's theory of concerted cultivation and natural

growth, that involvement in extracurriculars would be even more important for children experiencing the most contextual risk (i.e., low SES). That is, the Covay and Carbonaro (2010) believed that children from low-income backgrounds would cultivate the most noncognitive skills from participation in extracurriculars, which would have important implications for their academic outcomes. Indeed, results revealed that while higher SES children were more likely to be enrolled in extracurricular activities (95%), all children, regardless of family SES, were likely to be enrolled in activities to some degree. In fact, 60% of children from the lowest SES quartile were still enrolled in some extracurriculars. The relationships between academic achievement and SES were found to be rather complex. For instance, high-SES children enrolled in sports had lower reading scores than high-SES children who were not involved in sports. Low-SES children involved in sports had higher math scores than other low-SES children who were not enrolled in sports. Covay and Carbonaro (2010) theorized that high-SES children do not receive additional benefits, conceptualized as experiences that boost children's non-cognitive skills, from enrollment in sports above and beyond what they already have at home. On the other hand, low SES children reaped math skills, to some degree, because they may be exposed to more opportunities to build non-cognitive skills which in turn related to higher academic achievement. Higher SES-children may already be exposed to various opportunities to build these skills at home and in other environments readily available to them while low SES children do not, thus they reaped more benefits from extracurricular than their non-extracurricular participating peers (Covay & Carbonaro, 2010). While activity enrollment was not key to the current study, the findings in Convary and Carbonaro (2010) highlight how variation in outcomes may be dependent upon family's ecological contexts, and which further support Ungar's (2017) differential impact theory.

Support for the differential implications of IM and parenting based on social location also comes from a study by Paat (2010), which examined how proximal neighborhood and parenting contexts influenced children's behavioral outcomes through a subsample of 1,381 mothers from the Fragile Families and Child Well-Being Study. IM, operationalized as time mothers spent engaging with their young children (ages 4-5) in enrichment activities such as reading, playing, and singing, was found to be marginally significant ($\beta = -.056$, $p < .10$) with children's behavioral problems through Ordinary Least Squares (OLS) regression analysis. That is, the more time mothers spent in activities with children (e.g., reading, playing in the park, singing), the less likely children were rated as having frequent disruptive behavior problems (e.g., disobedience, problems with other children, temper tantrums) as indicated by mothers. However, Paat (2010) discovered that these findings were more complex after analyzing the ways in which IM practices and child outcomes were experienced by families according to contextual risk, defined by homeownership status. That is, children of mothers who engaged in more IM practices were reported as having fewer behavior problems *only* whenever they did not own their home (e.g., renting a home). In contrast, mothers who owned their own homes and who were also defined as intensive mothers reported that their children had *more* behavior problems than non-intensive mothers who owned a home (Paat, 2010).

These findings give credence to the need to critically examine how parenting beliefs serve families according to their specific micro and macro-level contexts. For instance, it could be that low-resourced mothers with IM beliefs enact parenting behaviors that give their children more opportunities to thrive—these opportunities may be more salient for low-resourced families than middle-class families who may already have access to many opportunities and environments that naturally support developing children. That is, low-resourced mothers (i.e., low SES

mothers) may need to provide "extra" opportunities or quality-rich environments to their children in order to help their children keep up with their more privileged counterparts. Indeed, Ungar's (2017) differential impact theory posits that efficacy of interventions is dependent upon the contextual risk of the family. In essence, high-quality interventions and access to resources are much more impactful for higher-risk families. By extension, children in families characterized by economic risk would be impacted differently by certain factors, such as positive parenting behaviors, than children of families without said risks. Considering differential impact theory, it could be that IM beliefs are more influential for high-risk families in that they are operationalized through positive parenting practices which may be more protective for children in contexts of risk. Still, IM could also be a paradox in that such intensive parenting beliefs appeared to be associated with negative health implications for mothers (Rizzo et al., 2013), which has cascading implications for children's adjustment. Not only must these findings be considered in a holistic fashion, but they must also be recognized as being limited to monolithic samples of families that have largely been characterized as low-income or middle-class. Indeed, a cumulative risk index that captures multiple contextual risks associated with families' multiple social locations may provide a more comprehensive understanding of the processes surrounding IM and families.

Variation in IM According to Social Location

Scholars have long studied the role of social class, such as socio-economic status, in shaping parenting behavior and ultimately child outcomes. In a similar vein, the current research went beyond questions of social class, to more precisely consider indicators of social location, which involves race, ethnicity, class, gender, and sexual orientation (Few-Demo, 2014), indicators of contextual risk (e.g., young motherhood, limited social and financial resources) and

how such indicators connect with the IM ideology, parenting stress, and positive parenting strategies. Despite evidence that IM is largely embraced by western cultures, it may be that IM beliefs and practices vary according to families' social locations and in unexpected ways. Indeed, while IM beliefs appeared to be equated with "best parenting" practices across demographic groups (Ishizuka, 2019), mothers from various social locations provided evidence that suggests there are important distinctions in the ways IM is enacted. Social location indicators, such as mothers' race, educational level, labor force participation and marital status, may influence the degree to which mothers endorse IM and the ways in which IM beliefs are expressed.

Social class and IM. First, it is important to consider the importance of social class in relation to IM beliefs given the historical underpinnings of IM ideology—namely, Lareau's (2003) work on concerted cultivation and natural growth. In contrast to original conceptualization of IM and concerted cultivation which posited that such attitudes about parenting were largely reserved for more affluent families, recent evidence suggested that most parents tend to favor parenting strategies that represent IM attitudes (Forbes et al., 2020; Ishizuka, 2019). For instance, Ishizuka (2019) surveyed a nationally representative sample of more than 3,600 parents on their beliefs about parenting strategies. Parents tended to rate concerted cultivation scenarios as "excellent" while scenarios that depicted natural growth were mostly rated as "OK" or "Good". Still, though the parents who participated in Ishizuka's (2019) research were from diverse backgrounds, other studies may provide deeper insight into the ways in which families with limited financial resources engage with the IM discourse.

While evidence that IM beliefs and practices are equated with "good parenting," which in turn may contribute to parenting stress for mothers, findings from Romagnoli and Wall (2012) suggested that mothers' experiences with IM may vary according to social locations—namely

income status and young motherhood. Romagnoli and Wall (2012) queried 10 young, low-income mothers about their experiences with the IM discourse. IM strategies were largely conceptualized as efforts to tend to children's potential intellectual and academic development through strategies such as reading to children, providing developmental toys, and providing children with extracurricular opportunities (Romagnoli & Wall, 2012). They found that, in general, young, low-income mothers resisted traditional IM attitudes such as the need to constantly teach children new concepts and skills even though they recognized such beliefs as being equated with "good mothering" by the larger society. Instead, these mothers believed that "good mothering" involved ensuring children's basic necessities and general happiness more so than the provision of an intellectually stimulating environment. In other words, these mothers placed more emphasis on children's social-emotional development. Still, pressures to conform to traditional notions of IM, which centers parenting on cultivating young children's cognitive abilities were described by the young mothers. For instance, the mothers in Romagnoli and Wall (2012) emphasized that they read to and played with their children as much as possible, despite their instances that providing a warm and sensitive environment was most important for children's healthy growth. These contradictions, or mothers' narratives about their desires to resist traditional IM expectations yet still describing ways they performed IM may illuminate the tension experienced by low-income mothers between conceptualizations of "good mothering." That is, young, low-income mothers were conflicted about their intuitive conceptualizations of ideal parenting (i.e., providing a warm and safe environment) with larger societal conceptualizations of good mothering (i.e., providing an intellectually stimulating environment). While IM expectations seemed to inform definitions of "good mothering," IM prescriptions

failed to capture the mothering performed by low-income mothers that was centered on keeping children safe and tending to their emotional wellbeing.

Even more than potential conflict between low-income mothers internalized views of "good" motherhood and broader cultural expectations, the high standards set by IM attitudes may be even more inaccessible to low-income mothers and families characterized by other contextual risks. For instance, efforts to engage in IM-inspired parenting also seemed to contribute to mothers' parenting stress due to the economic and time demands associated with scheduling and paying for extracurriculars and ensuring a developmental environment in the face of material hardship (Romagnoli & Wall, 2012). Low-income mothers described stressful decisions around making budget cuts to occasionally allow their children to participant in extracurriculars (e.g., swimming). They also described teaching themselves how to navigate social services in order to find out about free activities their children could partake in which seemed to confer both stress and pride in their abilities to be resourceful (Romagnoli & Wall, 2012). For example, mothers described the need to seek out charity organizations around the holidays so they could provide gifts for their children, which seemed to add to their experiences of maternal guilt and stress, but which also made them feel relieved because it allowed them [mothers] to provide more for their children. In one instance, a mother reflected on her appreciation for receiving an expensive developmental toy for her child that she would not have been able to otherwise afford (Romagnoli & Wall, 2012). To this mother, being able to provide her child with "intellectual toys" was important but often financially unrealistic. As such, low-resourced mothers appeared to adapt to IM expectations by being inventive—that is, seeking out resources that provided means to fulfilling parenting desires (i.e., providing stimulating toys). These efforts to be intensive in the traditional sense are likely unique to mothers with limited resources, potentially

adding to parenting stress, as the inability to provide material needs adequately for children is a documented source of distress for low-income mothers (Arditti et al., 2012).

These issues are not straightforward as mothers' distress has various facets and is distinct from corresponding constructs such as guilt (Arditti et al., 2012). For example, Romagnoli and Wall (2012) speculated that despite the potential for low-income mothers to experience stress in relation to keeping up with traditional IM standards, low-income, young mothers seemed to be protected from internalized feelings of guilt associated with failing to keep up with these expectations, unlike mothers from more economically privileged social locations (e.g., Budds et al., 2017; Elvin-Nowak, 1999). Romagnoli and Wall (2012) theorized that the mothers in their qualitative study, centered on the IM discourse and guilt, were largely protected from internalizing parenting guilt because they were already perceived by larger society as "inadequate parents" due to their young age. In this sense, young mothers were "freed" from conforming to IM and from some of the consequences (i.e., guilt) of failing to keep up with intensive strategies. Still, as described by mothers, parenting stress permeated day-to-day living as young, low-income mothers navigated the demands of IM expectations with limited financial resources and social support. These findings give support for examining IM beliefs and their implications according to varying social locations, such as parental age and social class.

Race and IM. Mothers that do not fit the white, middle-class demographic have long challenged the assumptions of dominant parenting discourses by emphasizing children's need for protection and survival skills against discrimination (Collins, 1994). With regard to IM, ethnic-minority mothers may engage in distinct parenting strategies that go beyond IM inspired behaviors, such as cognitive stimulation, to ensure children's physical and emotional wellbeing. Indeed, Elliott and colleagues argued that such strategies could also be defined as "intensive"

thus challenging the traditional sense of IM to be incomplete without consideration for motherwork (Collins, 1994) performed by Black mothers. To elaborate further, Elliott and colleagues (2015) considered the intersection of gender, race, and class in their qualitative investigation of IM with 16 black, low-income single mothers of teenagers. Similar to the mothers in Romagnoli and Wall's (2012) study, from the perspective of study participants, qualities of a good mother meant to self-sacrifice, to protect their children, and to teach children to be self-reliant. Based on the study findings, Elliott and colleagues (2015) argued that low-income Black mothers embraced IM strategies without larger social supports that may be available to middle-class families, though their expression of IM may look different in that they enact additional parenting practices that go beyond the provision of a stimulating environment. In other words, Elliott and colleagues (2015) proposed that "intense" parenting behaviors may not be confined to Hays (1996) and Lareau's (2003) early interpretations that limits intensive practices to those aimed at enhancing children's cognitive development through over-enrolling children in activities, directing children's play, and teaching children to make demands of adults. Indeed, these intensive qualifications, according to traditional notions of IM, assumes that families basic needs, such as safety, are already acquired. Instead, Elliott and colleagues argue that keeping children safe from external threats, such as racism, ought to also be considered expressions of IM in that such strategies are demanding for mothers. Indeed, similar conclusions were drawn in another study which explored Latinx mothers' efforts to protect their children from racial discrimination (Brown, 2021). Still, while Elliot and colleagues (2015) provided valuable insight into the ways IM may be enacted for low-income Black mothers, their experiences were centered on adolescents. It may be that the way IM is performed is not only dependent upon families' intersecting identities that include SES and race, but also include

children's ages and developmental stages. Also, the mothers in study led by Elliott and colleagues (2015) were from low-resourced backgrounds, thus the ways in which Black families with more financial and other resources enact IM strategies and strategies aimed at protecting Black children from discrimination were not illuminated.

Counter to findings that suggest that ethnic-minority mothers adopt IM beliefs in addition to white mothers (Ishizuka, 2019), Dow (2016) found that the 24 middle-upper class Black mothers in her study largely rejected notions that childrearing is a mother's duty, that mothering occurs within a self-sufficient nuclear family, and that paid employment conflicts with motherhood. Dow (2016) suggested that middle-class mothers, and Black middle-class mothers in particular, engage in an alternative parenting ideology which she termed "integrative mothering." Integrated mothering "assumes that (a) mothers are economically independent, not needing financial support from a man (economic self-reliance); (b) working outside of the home is a duty of good mothers; and (c) interdependent childrearing is supported by family and community members" (Dow, 2016, p. 188). However, Dow's (2015) work on intensive and integrated mothering was focused exclusively on the role of the mother in relation to maintaining dual roles (i.e., work-role and mother-role). While this is an important facet of IM, it is only part of the broader IM ideology. Instead, it could be that being child-centric is more salient in the IM discourse. Further, Dow's study was qualitative and cross-sectional, thus while their work theoretically extends and challenges the IM discourse for middle-class African American mothers, it cannot not be considered causal.

Indeed, it could be that multiple social locations that extend beyond comparisons of race groups are better indicators of the extent to which mothers embrace the IM ideology and how mothers extend traditional notions of IM. In fact, in another study, Walls and colleagues (2016)

considered race and social class in relation to IM beliefs. Amongst a sample of 205 full-time employed mothers of infants, Walls and colleagues (2016) measured IM beliefs using the Intensive Mothering Beliefs Scale (Walls et al., 2016) which consisted of 21 items around IM assumptions including "maternal employment, childrearing, self-sacrificing, and mothering as a natural talent" (Walls et al., 2016, p. 254). Sample questions included, "Mothers should stay at home to care for their children," "Childcare is the responsibility of the mother," and "Mothers should always place children's needs before their own" (p. 254). They found that while mothers of infants working full-time generally did not endorse beliefs related to IM, education was a key predictor in the degree to which mothers would agree with certain IM assumptions. Specifically, mothers with more education (4-year degree or more) were *less* likely to rate IM beliefs as important. Even more, Walls and colleagues (2016) noted unique intersections of race, education, and marital status as they predicted IM attitudes. They found that, overall, Black mothers were more likely to endorse IM beliefs than white mothers, and that single mothers were more likely than married mothers to endorse IM (Walls et al., 2016), suggesting that different families scenarios that are informed by various social locations are better indicators of who endorses IM. Still, while Walls (2016) study provided valuable insight into the complexities of IM within diverse family scenarios, it is still a question of how families with multiple social identities which are associated with elevated risk engage in IM-inspired parenting practices that extend beyond providing an environment rich in cognitive stimulation.

To bridge the theoretical gap between IM and the motherwork performed by poor, marginalized women, Randles (2020) introduced the concept of "inventive mothering." Noting the Eurocentric roots of IM and the sweeping assumptions that suggest quality parenting is best reflected by mothers' efforts to cultivate young children's cognitive and social-emotional

development to maintain or reach higher social economic status, *inventive mothering* (Randles, 2020) encapsulates poor mothers' rigorous and innovative efforts to meet children's physical development in addition to "higher-order" developmental domains. Randles (2020) critiqued IM for being built upon assumptions that assume safety and physical needs of children are already met, which neglects poor mothers' efforts to provide basic necessities for their children. Drawing from 70 in-depth interviews with racially diverse (44% Latina/Hispanic; 24% Black; 13% Multiracial; 13% White; 6% Asian) and low-income mothers, Randles (2020) argued that mothers facing economic strain, conceptualized as experiences with diaper needs, do not simply just find lower-cost alternatives to performing traditional notions of IM, but that they advance IM practices by engaging in strategies that protect children's dignity and which construct positive maternal identities for mothers who cannot keep up with the financial demands associated with traditional IM practices. Similar to the low-income mothers in Romagnoli and Wall (2012), the mothers in Randles (2020) seemed to reject notions that suggested they were not good mothers for failing to keep up with traditional IM standards which assumes the provision of necessities, such as food and residential stability, and instead embraced their efforts to provide for their children as exemplifying their efficacy as mothers.

These findings create a complex picture in regards to who endorses IM and under what circumstances. On one hand, mothers who have fewer financial resources seemed to embrace IM attitudes more so than middle-upper-class mothers (Walls et al., 2016), yet low-income mothers with other marginalized identities also seemed to reject or protect themselves from IM expectations in light of limited resources needed to engage in IM (Randles, 2020; Romagnoli & Wall, 2012). Further, there does not seem to be evidence that explains differences in IM endorsement based on solely on race. However, there does seem to be evidence that mothers of

ethnic-minority children must provide extra parenting efforts in protecting their young children from the effects of discrimination. That is, researchers (e.g., Dow, 2016; Elliott et al., 2015) have proposed that Black mothers engage in IM above and beyond the narrow traditional scope presented by Hays (1996) and later extended upon by Lareau (2003). Instead, ethnic-minority mothers appear to place their efforts towards teaching their children how to navigate a world built upon white supremacy, perhaps in addition to traditional definitions of IM.

Collectively, these recent findings, and especially those that suggest low-income mothers embrace IM more so than middle-upper-class mothers, run counter to Lareau's (2003) early work on concerted cultivation and accomplishment of natural growth suggesting a potential shift in parenting paradigms or variation in the ways IM is experienced by families according to their specific social locations. That is, counter to Lareau's (2003) findings that suggested that low-income families were content to let development occur naturally, without parental intervention (i.e., natural growth), and that middle-class families tended to place importance on intervening to enhance children's development (i.e., concerted cultivation), more recent findings suggest the opposite might be true (Wall et al., 2016), or, at the least, concerted cultivation is embraced by most parents regardless of social class standing (Forbes et al., 2020; Ishizuka, 2019). It may be that families characterized by various social location indicators experience and conceive of parenting differently than how they were described by Lareau (2003) over two decades ago. In other words, Lareau (2003) posited that intensive parenting (i.e., concerted cultivation) was unique to middle-class families. Recent evidence reviewed here, however, suggests that low-income families also endorse IM ideals (Ishizuka, 2019; Wall et al., 2016).

Summary of Intensive Mothering and Critiques

The findings reviewed in this chapter highlight variations of IM that largely depend upon families' social locations. For instance, children's intellectual stimulation versus their psychological wellbeing was emphasized by mothers depending upon their socioeconomic positions (e.g., Lareau, 2003; Romagnoli & Wall, 2012). Moreover, despite some variations in the ways IM is expressed, research also demonstrated the pervasiveness of IM attitudes reflected by high standards for parental investments in children-although these investments may be qualitatively different from Hays' (1996) original formulation. Broadly, the pervasiveness of IM has important implications for mothers, including parenting stress and other negative mental health outcomes, and may also have important implications for children through the mediating pathways of mothers' psychological distress and parenting behaviors. While IM may confer distress for women with children as they attempt to engage in an idealized prescription of motherhood, IM beliefs may also motivate parents to engage in positive, quality parenting behaviors that could be particularly beneficial in family contexts characterized by risk. Research has yet to consider these paradoxical implications for families from a holistic viewpoint.

Present Study

IM is a dominant parenting discourse in the U.S. and many parents, regardless of race, gender, or social class internalize IM as "good parenting" (Forbes et al., 2020; Ishizuka, 2019). IM, then, serves as a distal contextual factor that has implications for proximal parenting processes and child developmental outcomes. Despite its apparent widespread acceptance by American parents, previous research has failed to holistically capture the implications of IM beliefs for mothers and children within diverse socioeconomic backgrounds and multiple risk contexts. The purpose of this study was to advance the literature on IM by critically examining the complex interactions between IM, theoretically relevant parenting processes, and children's

cognitive development within varying degrees of cumulative contextual risk. A conceptual model (see figure 1) specifying the hypothesized direct and indirect relationships among IM, parenting stress, positive parenting, and children's executive functioning was tested. In addition, a second conceptual model (see figure 2) specified mothers' reports of cumulative risk as moderating the relationships between IM, parenting processes, and children's executive functioning. Indeed, previous research on IM has largely failed to include families within diverse risk-scenarios, thus the implications of IM, which may confer more strain for families outside of the margins are especially important to identify. While IM may contribute to more parenting stress, IM beliefs could potentially serve as a protective factor, if it strengthens positive parenting strategies or lessens parenting stress, within contexts of higher contextual risk, lending support to the hypothesis that traditional IM attitudes are paradoxical in that they could link to resilient parenting practices in the most disadvantaged families.

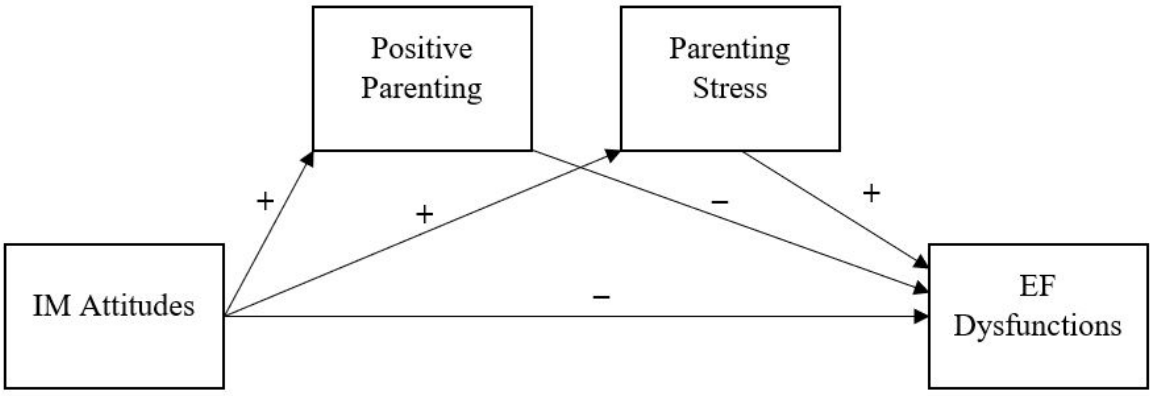
Research Questions & Hypotheses

The aim of the present study was to examine the potentially paradoxical associations among IM attitudes, positive parenting, parenting stress, and children's EF within contexts of cumulative risk. Figure 1 represents a conceptual model that summarizes a series of hypotheses which addresses the potentially paradoxical role IM attitudes may have with regard to the variables under study. The first set of study questions relate to the examination of how IM attitudes associate with positive parenting and parenting stress. First, do IM attitudes contribute to higher reports of positive parenting strategies? Though previous research has demonstrated that IM attitudes seem to confer more overparenting strategies meant to support children's development (e.g., Schiffrin et al., 2015), little is known about how IM attitudes may contribute to day-to-day parenting strategies. Given that IM captures attitudes about centering the child in

day-to-day activities and beliefs that children are precious and vulnerable, it was predicted that IM attitudes would be positively related to positive parenting strategies. That is, mothers who scored higher in a measure of IM attitudes would also report utilizing more positive parenting strategies, such as praising young children (i.e., warmth and support), setting clear boundaries with children, and engaging in play and conversations with children (i.e., cognitive stimulation). Second, what are the associations between IM attitudes and parenting stress? Previous research demonstrated that IM attitudes were positively associated with general depression, general stress, and low life satisfaction (Liss et al., 2013) but less is known about how such attitudes relate to parenting stress in particular —that is, stress derived from parenting responsibilities (Deater-Deckard, 1998). Given that IM captures hyper-parenting attitudes, it was predicted that higher endorsement of IM would relate to higher reports of parenting stress. Likewise, it was hypothesized that IM attitudes would directly explain variation in children's EF (i.e., direct effect).

Figure 1

Conceptual Mediation Process Model



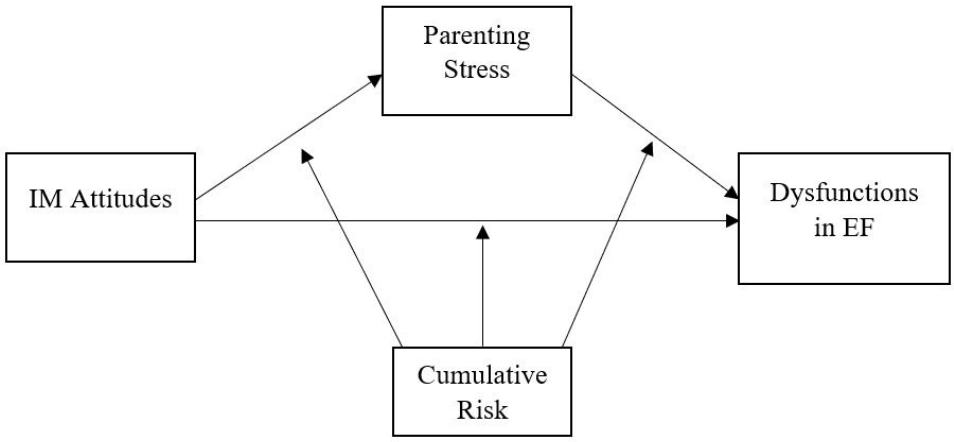
The next set of research questions were related to the direct and indirect effects (i.e., mediation) of IM attitudes on maternal reports of dysfunctions within children's executive functioning: (1) are the associations between IM attitudes and dysfunctions in children's executive functioning mediated by positive parenting strategies and/or parenting stress and (2) are the direct and/or indirect effects of IM attitudes on dysfunctions in children's executive functioning through parenting stress and/or positive parenting strategies moderated by varying degrees of cumulative risk? It is unclear how IM attitudes directly or indirectly relate to children's developmental outcomes but based on previous literature and theory, it was predicted that IM attitudes would be associated with variation in children's executive functioning through the mechanisms of positive parenting strategies and parenting stress and that these associations would be strengthened within contexts of cumulative risk. First, Schiffrin and colleagues (2015) found that parents who enacted IM attitudes by enrolling their young children in extracurricular activities did not report significant developmental gains in fine motor skills, language skills, or subjective happiness but they did not consider the ways in which day-to-day parenting strategies, such as positive parenting (e.g., warmth in parent-child interactions, setting limits on children's behavior, and scaffolding children to plan ahead to avoid problems), may contribute to the cognitive skills needed to direct, control, and manage behaviors and emotions (i.e., executive functions). A plethora of research has shown the advantages of positive parentings strategies for young children's behavioral and cognitive development (e.g., Collins et al, 2000; McEachern et al., 2012; Stack et al., 2010). Building on the previous hypothesis that IM would contribute to higher reports of mothers engaging in positive parenting strategies, it was also hypothesized that positive parenting strategies would contribute to maternal reports of optimal executive functioning. In other words, the effects of IM attitudes on dysfunctions in children's executive

functioning would be mediated (either partially or fully) by positive parenting strategies. Even more, it was hypothesized that cumulative risk would strengthen the associations between IM and positive parenting, positive parenting and dysfunctions in executive functioning, and IM and dysfunctions in executive functioning. In other words, cumulative risk would moderate all paths in the conceptual model.

Next, previous research established that IM attitudes relate to more negative mental health constructs, such as depression and low life satisfaction (Liss et al., 2013). As previously stated, it was predicted that IM attitudes would also contribute to higher reports of parenting stress given the intensity of expectations associated with IM, particularly for mothers. Parenting stress, however, has also been established in the literature as a proximal process related to less than optimal child developmental outcomes, including deficits in children's executive functions (Anthony et al., 2005). Thus, it was hypothesized that the effects of IM attitudes on children's executive functioning would be mediated by parenting stress. In particular, it was hypothesized that IM would be positively related to dysfunctions with children's executive functioning through maternal reports of parenting stress. Finally, it was hypothesized that cumulative risk would strengthen the associations between IM and parenting stress (path a), parenting stress and dysfunctions in executive functioning (path b), and IM and dysfunctions in executive functioning (path c). Figure two depicts the conceptual conditional process model that was tested following preliminary analyses. Note that positive parenting was removed from the final moderation model following preliminary analyses, discussed in more detail in a later section.

Figure 2

Conceptual Conditional Process Model.



CHAPTER 4: METHODS

Participants

Data were collected from 255 mothers of children who were between the ages of 3 and 5 (*M* = 3.87 years, *SD* = .76). 45.9% (n = 117) of the children were girls; 54.1% (n = 138) were boys. This age group was of particular importance given it is a developmental phase in which cognitive and social-emotional growth is especially salient. In addition, there is theoretical merit for examining this age group given evidence that IM appears to be centered on boosting children's development before kindergarten, perhaps to set children up for success. The average number of children in each household reported by mothers was 2.09 (SD = 1.02). The mothers were between the ages of 21 and 48 (*M* = 33.96, SD = 5.05). The majority of mothers self-identified as White (83.5%), followed by Black or African American (5.7%), Hispanic or Latinx (5.9%), Asian (3.5%), and other/multi-racial (.4%). The sample was economically diverse, though the majority reported incomes that are typically categorized as middle class (60%), followed by lower or working class (22.2%), and upper-class (11.8%) according to income parameters based on a household composition of 3 (Bennett et al., 2021). In addition, 14.2% of the families in this study fell under the national poverty threshold—the U.S. poverty rate in 2020 was 11.4%, meaning the sample in this study represented slightly more families within poverty than the national average. Poverty thresholds were based on the U.S. census Bureau (2020) which combines household composition with total household income. For instance, a family unit of 5 or more people with a household income of $31,417 was coded as "under poverty threshold." In addition, 21.2% of mothers reported using assistance programs such as food stamps, HUD, or WIC. Half of the mothers in this sample worked full-time (50.6%) while 28.6% were unemployed, 12.5% worked part-time, and 8.2% reported being self-employed. As for

education, 2.4% of mothers did not complete high school, 8.2% completed high school but not go on to additional schooling, 1.2% attended a vocational school, 15.3% had some college experience, 36.9% completed a 4-year college degree, and 36.1% had a graduate degree.

Procedure

An electronic survey (see appendix B) containing the study measures was created using Qualtrics. Mothers of children between the ages of 3 and 5 and who also lived with the target child were eligible to participate in the study (see appendix A for the IRB approval letter). Participants were recruited through distribution of the study flyer through social media platforms, social service agencies, and early learning centers across the U.S. A small percentage of participants were also recruited through Amazon Mechanical Turk (Mturk; N = 24; 9.4%). Individuals interested in participation were provided a link to access the online survey where they could read more about the study (i.e., informed consent) and decide to participate. Participants recruited through social media, childcare sites, and social services were given an electronic $10.00 gift card to Amazon once their data were checked for quality and consistency. Participants recruited through Mturk were given $3.00 after completion of the survey which typically took less than one hour to complete. Mturk workers (i.e., participants) are typically paid only $1-2 per hour for their participation in academic research; a rate that has proven to yield reliable results (Porter et al., 2020). However, Porter and colleagues (2020) argued that paying so little may discredit academic researchers with those that utilize Mturk as a primary or secondary source of income. Indeed, Mturk requesters with good reputations amongst Mturk workers compensate their participants at twice the rate of requesters with poor reputations. As such, Mturk workers were paid about twice the average pay for their participation (Porter et al., 2020).

Measures

Intensive Mothering Attitudes

The Intensive Parenting Attitudes Questionnaire (IPAQ; Liss et al., 2015) was used to measure IM attitudes. The IPAQ consists of 25 items and 5 scales: Essentialism (e.g., ''Although fathers may mean well, they generally are not as good at parenting as mothers.''); Fulfillment (e.g., ''Being a parent brings a person the greatest joy they can possibly experience''); Stimulation (e.g., ''Finding the best educational opportunities for children is important as early as pre- school''); Challenging (e.g., ''It is harder to be a good mother than to be a corporate executive''), and Child- centered (e.g., ''Children's needs should come before their parents''). Questions on the IPAQ are answered on a 6-point scale from 1 (strongly disagree) to 6 (strongly agree). A composite variable was created by summing each subscale score in order to represent IM attitudes. Cronbach's alphas were similar to previous studies which used the IPAQ. In particular, Cronbach's alphas were: Essentialism (α=0.89), Fulfillment (α=0.71), Stimulation (α=0.60), Challenging (α=0.64), Child-Centered (α=0.77), and a composite score of IM attitudes (α=0.82). See appendix C for a full list of measure items.

Cumulative Risk

A cumulative risk composite construct combining seven microsystem and exosystem factors was created to capture varying degrees of contextual risk. While there are drawbacks to measuring risk through a summary index of risk factors (e.g., risk is designated arbitrarily; Evans et al., 2013), there are also many benefits including statistical sensitivity to small sample sizes and congruence with theoretical underpinnings (e.g., ecological theory). Even more, Atzaba-Poria and colleagues (2004) tested if risks at multiple ecosystem levels (i.e., micro-level and

macro-level risks) acted in a cumulative manner or if individual risk factors were better predictors of behavior problems of children between the ages of 7 and 9. They found that risks did act in a cumulative manner and children who experienced more risks also demonstrated more problem behaviors (Atzaba-Poria et al., 2004), giving credence to utilizing a cumulative risk index.

The cumulative risk composite used in this study was similar to other risk indices used in research examining the effects of risk on children's developmental outcomes (Evans et al., 2013; Northerner et al., 2016; Popp et al., 2008; Stolk et al., 2008; Tømmerås & Kjøbli, 2017). Risk variables included (1) parent education, (2) single parenthood, (3) young parenthood, (4) economic risk, (5) residential instability, (6) homelessness, and (7) family resources. Consistent with previous research (e.g., Evans et al., 2013; Tømmerås & Kjøbli, 2017; Trentacosta et al., 2008), each observed variable was dichotomized (0= no risk, 1= risk present) and summed for a total risk index (M = .91, SD = .96, Range = 0—4). The cumulative risk index thus theoretically ranged from 0 to 7, though the participants in this study did not score higher than 4 on the risk index. From the total sample, 41% reported no risks, 35.8% presented one risk, 16.1% reported 2 risks, 5.5% reported 3 risks, and 1.6% of the sample reported 4 risks.

Parent Education. Consistent with previous research (for examples, see Heberle et al., 2014; Tamis-LeMonda et al., 2009), having less than a high school education was considered a risk factor. Mothers with less than a high school education (2.4%) was categorized as "risk present".

Single Parenthood. Single parenting was defined as not living with another adult who helps with the care of the target child in the home. 13.7% of mothers identified as single parents.

Young Parenthood. Young parenting was defined as having a child at the age of 19 or younger (Martin et al., 2019). Mothers who had at the age of 19 or younger (4.7%) were categorized as "risk present."

Economic Risk. Income risk was determined by the U.S. poverty threshold for 2020. The United States Census Bureau (2020) estimates the poverty threshold based on family size. For instance, a family of three with a collective yearly income of $20,586 or less would be categorized as living in poverty. Mothers reported their household size and total household income. A dichotomized variable capturing poverty was created (i.e., 1= poverty, 0= above poverty, where poverty represented "risk present"). 14.2% of mothers indicated that their family fell below the U.S. poverty threshold.

Residential Instability. Residential instability was indicated by the family changing households three or more times in the previous three years, encompassing the majority of the child's lifetime (see Moran et al., 2017). A dichotomous variable was created to indicate residential instability (i.e., 1= three or more moves within the past three years; 0= less than three moves within the last three years). 4.3% of mothers reported moving three or more times within the last three years.

Homelessness. Mothers reported if they had ever been homeless. Risk was present if mothers reported that they had experienced homelessness. Nine mothers (3.5%) experienced homelessness.

Family Resources. The Family Resources Scale (Dunst & Leet, 1987) consist of 30 items that respondents rate on a 5-point Likert scale from *not at all adequate* (1) to *almost always adequate* (5). Respondents are directed to choose the response that best describes how

well their family's needs are met on a consistent basis. Examples of items include: *money to pay monthly bills*, *time to get enough sleep/rest*, and *money to buy things for self*. Participant responses were averaged and a dichotomized variable for above the mean (0) and below the mean (1) were created. Mothers who reported total family resources that fell below the sample average were categorized as "risk present." 40% of respondents reported below average family resources. Cronbach's alpha for this sample was (α= .92). See appendix G for a full list of measure items.

Positive Parenting Strategies

Positive parenting strategies were measures through the Parenting Young Children questionnaire (PARYC; McEachern et al., 2012). The PARCY consists of 21 items (see appendix E) which asks parents to indicate how often they were able to perform certain parenting strategies within the past month on a 7-point Likert scale (1= *not at all*, 7= *most of the time*). Examples of behaviors include, *play with your child in a way that was fun for both of you*, *stick to your rules and not change your mind*, and *avoid struggles with your child by giving clear choices*? Three subscales make up the PARCY: (1) Supporting positive behavior (α=.71), (2) Setting limits (α=.78), and (3) Proactive parenting (α=.78). A composite variable was created for the analyses in the present study by combining the subscale scores and dividing by the total number of subscales (α=.88).

Parenting Stress

The Parenting Stress Index- Short Form, 4th edition (PSI-SF; Abidin, 2012) was used to measure mother reports of parenting stress. The PSI-SF (see appendix D) includes 36 items assessing parental distress (α= .88), parent-child dysfunctional interaction (α= .84), and difficult

child (α= .87), which combine to form a Total Stress scale (α=.93). Parents respond to item questions on a 1 to 5-point Likert-type scale (1 = strongly agree, 2= agree, 4= disagree, 5= strongly disagree). Examples of items from the PSI-F include (1*) I feel trapped by parenting,* (2) *my child does not like me*, and (3) *I can't do thing I like* (Whiteside-Mansell et al., 2007). Reliability and validity tests support the PSI-SF as a useful measure for assessing parenting stress across economically and ethnically diverse families (American Psychological Association, 2011).

Children's Executive Functioning

The Behavior Rating Inventory of Executive Functioning- Preschool (BRIEF-P; Sherman & Brooks, 2010) is a parent-report measure of behavioral manifestations of executive functioning (i.e., EF). EF is an umbrella term for the cognitive processes that controls and directs behavior and emotional responses. The BRIEF-P (see appendix F) includes 63 items that measures each executive function: Inhibition (e.g., "child has trouble putting the brakes on"), Shift ("takes longtime to adapt in new situations"), Emotional Control ("easy outbursts"), Working Memory ("trouble with tasks of more than one step"), and Plan/Organize ("trouble following routines"). The clinical scales form three broad indexes (Inhibitory Self-Control, Flexibility, and Emergent Metacognition) and one composite score (Global Executive Composite); only the composite score was used in the present study analyses. The Global Executive Composite captures overall EF; higher EF, as reported by mothers, indicates more problems with children's EF therefore the terms "EF dysfunctions" or "dysfunctions in EF" were used for clarity to describe the outcome variable. Normed t-scores for the global executive composite were used in statistical analyses to capture children's overall problems in EF. Cronbach's alphas for all scales were good or excellent (α=.84 - .90).

Analytic Strategy

Data Screening and Missing Values

Data screening and multivariate analyses were conducted in SPSS 27.0 after data were collected. First, descriptive data analyses were used to thoroughly screen data for errors, normality, and missingness. Less than 3% of the data (3 items total from two different measures and 2 different participants) were missing and were determined to be missing completely at random based upon Little's Missing Completely at Random (MCAR) test (α=.54). According to Dong and Peng (2013), missing data values of less than 5% is considered "ignorable" and thus can be treated using the expectation-maximization (EM) algorithm, a powerful maximum-likelihood based missing data method. Preliminary analyses were also conducted to ensure no violation of the assumptions of normality, linearity, multicollinearity or homoscedasticity through plotting of the data, and tolerance and VIF statistics.

Analysis Plan

A series of preliminary analyses were conducted to test each research hypothesis following treating the data for missingness. First, correlation analyses and t-tests were performed to identify potential covariates. Correlation analyses were also performed to examine the associations between each key variable. Next, to examine the first three study hypotheses which explored the extent to which IM attitudes explained variation in parenting stress, positive parenting strategies, and dysfunctions in children's EFs respectively, three hierarchical regression analyses were conducted. Hierarchical regression analysis was determined to be the most appropriate to test the first three study hypotheses because it permitted the examination of how much each variable, or "block", explained variance in maternal reports of dysfunctions in

children's EF (i.e., the dependent variable) while holding study covariates constant (i.e., controlled variables). As such, the unique contribution of positive parenting strategies (i.e., independent variable one) and parenting stress (i.e., independent variable two) on the variance in children's EF was able to be examined. In addition to testing study hypothesis 1.1. through 1.3, the purpose of the hierarchical regression analyses was to develop the most parsimonious conditional process model possible. Parsimony is a critical aspect of developing regression-based path analyses and involves developing the simplest model with the fewest predictors that have the most explanatory value (Streiner, 2005).

The final set of study hypotheses regarding mediation and moderated-mediation were tested in SPSS 27.0 through the PROCESS macro (Hayes, 2021, version 4.0). PROCESS is a computational tool for path-based mediation and moderation analyses, and which utilizes bootstrapping methodology. Bootstrapping methodology arguably provides the best statistical power when testing mediating and moderating effects (Hayes, 2018). Bootstrapping fares well in avoiding the Type I error and it does not assume normal distribution of the sample (Hayes, 2018). Bootstrapping treats the sample as a miniature version of the population it was derived from. The sample is then resampled *k* times, where *k* should be at least 5,000 (Hayes, 2007). The product of the test is a confidence interval. The model is considered to be statistically significant if the confidence interval does not contain zero.

This phase of the analysis plan was concerned not only with individual contributions each variable made in regard to explaining variation in children's EF, but also focused on the process through which all variables in the theoretically based conceptual model (see figures one and two) collectively shaped children's EF. In particular, the process model specified that higher IM attitudes would indirectly contribute to higher reports of dysfunctions in children's EF through

the mediating role of parenting stress, and fewer dysfunctions in children's EF through the mediating role of positive parenting. In other words, it was predicted that higher endorsements of IM attitudes would be related to more parenting stress which would, in turn, be associate with higher reports of dysfunctions in children's EF. On the other hand, it was also hypothesized that IM attitudes would negatively contribute to maternal reports of dysfunctions in children's EF through the mediating role of positive parenting strategies. In other words, it was predicted that mothers who endorsed IM attitudes would be more likely to engage in more positive parenting strategies which would be associated with fewer reports of dysfunctions in children's EF (see appendix G for a conceptual and statistical diagram). Bootstrapping methodology was deemed most appropriate to test these hypotheses, which specify indirect effects of IM attitudes on children's EF through proximal parenting processes, given the complexities of the conceptual model.

In addition to testing the indirect effects of IM attitudes on reports of dysfunctions in children's EF, the PROCESS macro (i.e., bootstrapping methodology) was used to test the final model which specified conditional indirect effects, or more commonly referred to as "moderated mediation or mediated moderation." Tests of conditional indirect effects explain the magnitude of an indirect effect (i.e., mediator) at a particular value of a moderator (Preacher et al., 2007). In this sense, the moderator (W), which is specified based on previous literature or theory, could change the strength and/or direction of the indirect effect (see appendix G for a conceptual and statistical diagram). In this study, the conditional process modeling is tested when a mediator M (parenting stress) mediates the direct effect of the independent variable X (IM attitudes) on the outcome variable Y (dysfunctions in children's EF) when this indirect effect depends on the particular value of the moderator W (cumulative risk) on the relationship between X (IM

attitudes) and Y (children's EF). In this model (see figure 2), the process through which IM attitudes indirectly influence children's EF through proximal parenting processes is advanced by considering the multiple social locations and resources of families.

CHAPTER 5: RESULTS

The purpose of the present study was to apply an ecological and resilience framework to the examination of the potential implications of IM attitudes for mothers and their young children. Informed by previous literature and theory, per Figure 1, it was hypothesized that IM attitudes would be positively associated with positive parenting strategies and parenting stress but would be negatively associated with maternal reports of problems with children's executive functioning. These hypotheses were first tested through bivariate correlation analyses (i.e., to determine the direction and strength of the relationship), as well as through hierarchical regression analyses (i.e., to determine predictive power). Next, it was hypothesized that IM attitudes would directly and indirectly affect children's EF through the mediating roles of positive parenting strategies and parenting stress. Finally, it was hypothesized that the direct and indirect effects of IM attitudes on children's EF would be moderated by cumulative risk. That is, the potential relationships amongst model constructs would be dependent upon degrees of cumulative risk experienced by families. Tests and analyses of these hypotheses are discussed further.

Descriptive Statistics

Descriptive analyses were conducted and are reported in Table 1. The mothers in the present study varied in regard to how much they endorsed each subscale from the IM attitudes measure (IPAQ; Liss et al., 2015). Participants in this study most strongly endorsed Challenging, Essentialism, and Stimulation while Fulfillment and Child Centered were least endorsed. Participants had moderate levels of parenting stress with 35.7% scoring in the clinical range (≥85). As for parenting practices, the mothers in this study had high reports of utilizing positive parenting strategies with the target child.

Table 1

Descriptive Statistics for Study Variables (N = 255)

Variable	Mean	SD	Possible Range	Actual Range
IPAQ				
Challenging	4.34	.75	1.00–6.00	1.00–6.00
Child-Centered	1.90	.53	1.00–6.00	1.00–6.00
Essentialism	3.65	1.49	1.00–6.00	1.00–6.00
Fulfillment	2.92	.62	1.00–6.00	1.00–6.00
Stimulation	3.30	.46	1.00–6.00	1.00–6.00
IPAQ Composite	3.22	.48		
PSI-SF				
Difficult Child	25.27	7.82	12.00—60.00	12.00—54.00
Parent-Child Dysfunction	22.92	6.96	12.00—60.00	12.00—47.00
Parental Distress	30.61	8.99	12.00—60.00	12.00—59.00
Total Stress	78.80	20.19	36.00—180.00	37.00—140.00
PARYC				
Proactive Parenting	5.82	.82	1.00—7.00	3.71—7.00
Setting Limits	5.49	.83	1.00—7.00	3.14—7.00
Supporting Positive Behavior	5.88	.76	1.00—7.00	3.57—7.00
PARYC Composite	5.73	.69	1.00—7.00	3.76—7.00
BRIEF-P				
Emotional control	16.16	4.14	10.00—48.00	10.00—30.00
Inhibit	25.53	6.02	16.00—48.00	16.00—47.00
Plan/Organize	16.29	3.99	10.00—30.00	10.00—29.00

Shift	15.56	4.22	10.00—30.00	10.00—30.00
Working memory	24.43	6.02	17.00—51.00	16.00—44.00
Global EF Raw Scores	97.96	20.56	63.00—186.00	62.00—170.00
Global EF (T-scores)	53.75	12.35	31.00—115.00	33.00—95.00

Univariate Analyses

A series of univariate analyses were conducted in order to identify covariates that warranted inclusion in the multivariate process models and to determine how the model variables related to one another. Correlation analyses were first conducted for all model variables to identify how each variable related (i.e., direction) and by how much (i.e., degree). Table 2 presents bivariate correlations amongst study variables. Pearson's correlation coefficients showed weak to moderate significant correlations amongst most study variables. IM attitudes were positively correlated with parenting stress ($r = .33$, $p < .01$) but were not significantly associated with positive parenting. Most notable was the associations between parenting stress, positive parenting, and children's EF. Parenting stress was negatively associated with positive parenting ($r = -.47$, $p < .01$) and positively associated with dysfunctions in children's EF ($r = .57$, $p < .01$).

Table 2.

Pearson correlations and Descriptive Statistics

Variable	1	2	3	4	5	6
1. Mother age	—					
2. Family resources	.10	—				
3. IM attitudes	-.12	-.37**	—			
4. Parenting Stress	-.07	-.31**	.33**	—		
5. Positive Parenting	.15*	.21**	-.06	-.47**	—	
6. Dysfunctions in EF	-.11	-.20**	.18**	.57**	-.32**	
M	33.96	132.11	3.22	78.80	5.73	53.75
SD	5.05	14.16	.48	20.19	.69	12.35

*Correlation is significant at the 0.05 level (2-tailed).
**Correlation is significant at the 0.01 level (2-tailed).

Identification of Covariates

Potential covariates that would be relevant to the conceptual model were explored through bivariate correlations and t-test analyses. First, independent sample t-tests were conducted to explore potential differences between the Mturk and traditional samples amongst key demographic and study variables. No significant differences were found between the two samples thus participation modality was not set as covariates in the models. Next, previous literature and theory posit that families with fewer resources typically report more parenting stress than families with adequate resources. Therefore, family resource scores were examined as a potential covariate for the first mediation model given the inclusion of parenting stress in the model. "Family resources," a continuous variable based on scores from the Family Resources Scale (Dunst & Leet, 1987), was examined using bivariate correlations. As expected, total family resources were negatively correlated with all subscales from the parenting stress index: parental distress ($r = -.35$, $p < .01$), parent-child dysfunction ($r = -.26$, $p < .01$), and difficult child ($r = -.15$, $p < .05$). Higher scores on the Family Resource Scale were indicative of adequate material needs and financial resources. Family resources was also significantly correlated with subscales

of the Intensive Parenting Attitudes Questionnaire (IPAQ): child-centered ($r = -.26$, $p < .01$), essentialism ($r = -.39$, $p < .01$), and challenging ($r = -.16$, $p < .05$). These findings suggested that mothers with fewer resources were more likely to endorse IM attitudes. Likewise, total family resources were positively correlated with supporting positive behavior ($r = .25$, $p < .01$) and proactive parenting ($r = .22$, $p < .01$), meaning that families with more resources tended to report engaging in more positive parenting strategies than families with fewer financial, material, and social resources. Finally, family resources were negatively associated with 4 of the 5 subscales from the BRIEF-P: Inhibit ($r = -.14$, $p < .05$), shift ($r = -.15$, $p < .05$), working memory ($r = -.26$, $p < .01$), and plan/organize ($r = -.19$, $p < .01$), as well as the global composite in dysfunctions in EF ($r = -.20$, $p < .01$). These findings suggested that mothers within families with adequate resources were less likely to report problems with their children's EF. Collectively, these bivariate correlation analyses suggested that the family resources variable was significant thus must be controlled for in the first multivariate model.

T-tests and the Kruskal-Wallis Test were conducted to examine whether the study variables differed based on sample characteristics of child age, child gender, and maternal age. The Kruskal-Wallis Test, similar to a t-test, allowed for the comparison of three or more groups for each variable, therefore it was used to compare differences based on ages of children (3, 4, or 5 years) and mothers (21—25; 26—29; 30—34; 35—40 years; 41 years or older).

Sample Characteristics and IM Attitudes. No significant differences were found for IM attitudes, including each subscale of the IPAQ, based on child gender or age. Given previous literature that suggested black mothers may not endorse traditional IM attitudes to the same extent as white mothers (Dow, 2016; Elliott et al., 2015), race was also explored as a potential covariate. Results of a Kruskal-Wallis Test revealed that mothers who identified as Black or

African American had significantly higher means of child-centered attitudes than White mothers. In other words, Black mothers tended to score higher on items that captured attitudes regarding the provision of daily life surrounding the child. However, group differences were not present for any other IM attitudes subscale or the IM composite variable thus race was not delineated as a covariate.

Significant differences between maternal age groups were found for the child-centered subscale of the IPAQ. A Kruskal-Wallis Test revealed a statistically significant difference in child centered attitudes across five different maternal age groups (Group 1, n = 12: 21—25 years; Group 2, n = 38: 26—29 years; Group 3, n = 88: 30—34 years; Group 4, n = 90: 35—40 years; Group 5, n = 27: 41 years or older), χ^2 (4, n = 255) = 18.299, $p < .01$. In particular, groups 1 (21—25) and 2 (26—29) reported significantly different median scores (M = 1.83, $p < .05$) with the older groups reporting higher child-centered attitudes. Similarly, group 2 reported significantly higher child-centered attitudes than group 3 (30—34-year-olds; $p < .05$) and significantly higher child-centered attitudes with group 4 (35—40-year-olds; $p < .01$). Group 3 reported statistically higher child-centered attitudes than group 4 ($p < .01$) and group 5 (oldest mothers) reported significantly higher scores than group 4 ($p < .05$). However, significant differences in composite scores of IM attitudes were not present. Still, given these significant differences based on univariate t-tests, Maternal Age was delineated as a covariate for the multivariate models.

In addition to maternal age, family resources and family income were examined as potential covariates given previous research and theory that posits IM beliefs are endorsed more by middle-upper class families in comparison to working- or lower-class families (Lareau, 2003). First, an independent samples t-test was performed to compare families who were above and

below the national poverty threshold. Results revealed that families characterized by living in poverty tended to report higher IM attitudes than families above the poverty threshold, but only the fulfillment subscale was statistically significant $t(253) = -1.31$, $p < .05$. In other words, mothers below the poverty threshold tended to report that parenting their young child(ren) was fulfilling more so than what mothers with higher incomes reported.

Next, an independent samples t-test was performed to compare the mean differences in IM attitudes based on total family resources. Groups were created based on sample means; that is, below or above the average for total family resources for the given sample. Comparing family resources goes beyond the comparisons based on family poverty status by capturing available social, medical, financial, material, and other (e.g., time to oneself) resources. Results of the independent samples t-test revealed no significant differences in IM attitudes (subscales and composite) but families with fewer resources tended to report more IM attitudes than families with more resources, similar to the findings that mothers living in poverty tended to report higher IM attitudes than mothers above the poverty threshold.

Sample Characteristics and Positive Parenting. No significant differences were found for positive parenting based on child gender or age, although significance was trending for gender and the supporting positive behavior subscale ($p < .10$). That is, mothers of boys reported more ($p < .10$) supporting positive behaviors such as praising children for good behavior and inviting children to play games. Because significance was not at the 95% confidence interval, child gender was not added as a covariate in the final models.

A Kruskal-Wallis Test revealed a statistically significant difference in supporting positive behaviors based on maternal age (Group 1, n = 12: 21—25 years; Group 2, n = 38: 26—29 years; Group 3, n = 88: 30—34 years; Group 4, n = 90: 35—40 years; Group 5, n = 27: 41 years or

older), χ^2 (4, n = 255) = 12.743, p < .01. Groups 1 and 4 were statistically different (p < .05) with older mothers reporting more use of supporting behaviors than younger mothers. Likewise, group 1 (youngest mothers) and group 5 (oldest mothers) were statistically different (p < .01) with older mothers reporting engaging in more supportive behaviors. Finally, group three (30—34 years) was statistically different from groups four (35—40 years, p < .01) and five (41 years or older, p < .01). In general, older mothers reported using strategies that encouraged or supported young children's positive behaviors than younger mothers. Therefore, maternal age was delineated as a covariate for the multivariate models.

Sample Characteristics and Parenting Stress. An examination of differences in parenting stress based upon children's gender and age and maternal age revealed no significant differences.

Sample Characteristics and Children's Executive Functioning. No significant differences were found for children's raw scores of executive functioning, as reported by mothers, based on maternal age, child age, or child gender.

Summary of Covariates

In sum, preliminary univariate analyses revealed that maternal age and family resources were significantly related to multiple study variables. Briefly, family resources were related to more parenting stress and higher scores on the BRIEF-P which are indicative of problems with children's EF. Higher maternal age was related to higher scores in child-centered beliefs (subscale of the IPAQ) and more positive parenting strategies. As such, maternal age and family resources were identified as covariates and included in the multivariate analyses.

Multivariate Analyses

Upon completion of the univariate tests, a series of multivariate analyses were conducted for the purpose of hypothesis testing and process model refinement. Each set of analyses was progressively more complex. First, hierarchical regression analyses were conducted to examine the first set of study hypotheses relating to the associations between IM attitudes and parenting stress, IM attitudes and positive parenting, and IM attitudes and dysfunctions in children's EFs. Then, bootstrapping methodology was employed to examine the direct and indirect effects amongst study variables within a cohesive path analysis. Finally, a conditional process model was tested in order to examine the extent to which the mediating effect depends on the level of familial cumulative risk.

Hierarchical Regression Results

The first set of study hypothesis (1.1 – 1.3) were tested using hierarchical regression analyses. These analyses permitted the examination of the predictive power of each study variable in regard to variation in children's EF. As aforementioned, significant group differences in maternal age and high correlations between family resources and key variables were observed in the present data therefore maternal age and family resources were included in the regression models as covariates.

Hypothesis 1.1: Endorsement of IM attitudes will be positively associated with positive parenting strategies.

Theoretically, it was proposed that mothers who endorsed IM attitudes would be more likely to engage in positive parenting strategies that have been demonstrated to support children's developmental trajectories. As such, it was hypothesized that IM attitudes would be

positively associated with positive parenting strategies, as reported by mothers. As previously stated, correlation analyses did not support this hypothesis, yet a regression analysis was still performed to identify if IM attitudes significantly predicted positive parenting strategies. The total variance explained by the model as a whole was 5.4%, $F (3, 251) = 5.51$, $p < .001$. After controlling for maternal age and family resources, IM attitudes did not explain any additional variance in positive parenting strategies ($R^2 \Delta = .001$, $F \Delta (1, 251) = .220$, $p = .64$), suggesting that there were other variables that could be driving the variance in the model. Contrary to the study hypothesis, IM attitudes did not significantly predict more positive parenting strategies.

Hypothesis 1.2: Endorsement of IM attitudes will positively predict parenting stress.

To test the second hypothesis, which specified that IM attitudes would predict higher reports of parenting stress, a hierarchical regression analysis was conducted. Maternal age and family resources were entered at Step 1, explaining 9.5% of the variance in parenting stress. After entry of IM attitudes at Step 2, the total variance explained by the model as a whole was 13.7% (adjusted R^2), $F(3, 241) = 14.50$, $p < .001$. In other words, after controlling for maternal age and family resources, IM attitudes explained an additional 5% of the variance in parenting stress, $R^2 \Delta = .05$, $F \Delta (1, 251) = 15.524$, $p < .001$. These results support the hypothesis that endorsement of IM attitudes would be associated with more parenting stress.

Hypothesis 1.3: Endorsement of IM attitudes will predict dysfunctions in children's executive functioning.

Finally, the direct association of IM attitudes with dysfunctions in children's EFs were examined in a hierarchical regression. The entire model explained 5% (adjusted $R^2 = .05$) of the variance in children's EF ($F (3, 251) = 5.36$, $p < .001$). After controlling for maternal age and

family resources, IM attitudes only explained an additional 1% of variance in children's executive functioning, $R^2 \Delta = 0.01$, $F \Delta (1, 251) = 3.27$, $p = .07$. These results demonstrated that while the relation between IM attitudes and dysfunctions in children's EFs was trending toward significance ($p < .10$), the present data do not significantly confirm the hypothesis that IM attitudes predicted better EF in children. Contrary to what was expected, IM attitudes was related to fewer in cognitive skills ($\beta = .12$, $p < .07$) as measured by the BRIEF-P in which higher scores indicate more dysfunction.

In summary, preliminary regression analyses allowed for model refinement in order to ensure the most parsimonious test of the conceptual model advanced in Figure 1. These analyses revealed that IM attitudes significantly predicted maternal reports of parenting stress but did not predict maternal reports of engaging in positive parenting strategies. Further, although results revealed that IM attitudes did not significantly predict higher reports of dysfunctions in children's EF ($p < .10$), the potential indirect effects of IM were of interest thus was retained in the model. Collectively, these findings suggested support for testing the conceptual mediation model in order to identify potential direct and indirect effects of IM attitudes, parenting stress, and positive parenting strategies on children's EF.

Process Models

Two process models were tested using the PROCESS macro (Hayes, 2018) in SPSS 27.0 to address the final two study hypotheses. First, a central concern of the present study was to explore the process by which IM attitudes might explain variation in children's cognitive competencies. Based on prior research and extant theory, it was hypothesized that key parenting variables mediate the relationship between IM and children's EF, and results of the hierarchical regression confirmed that IM attitudes did in fact explain variation in parenting stress and

children's EF, suggesting, in addition to a theoretical basis, a statistical underpinning for its inclusion in the process models. Although IM did not directly explain variation in positive parenting, resilience theory and research specify positive parenting behaviors contribute to better EF in children (e.g., Lugo-Gil & Tamis-LeMonda, 2009) therefore it was also specified as a mediator with regard to IM and EF in the first mediation model.

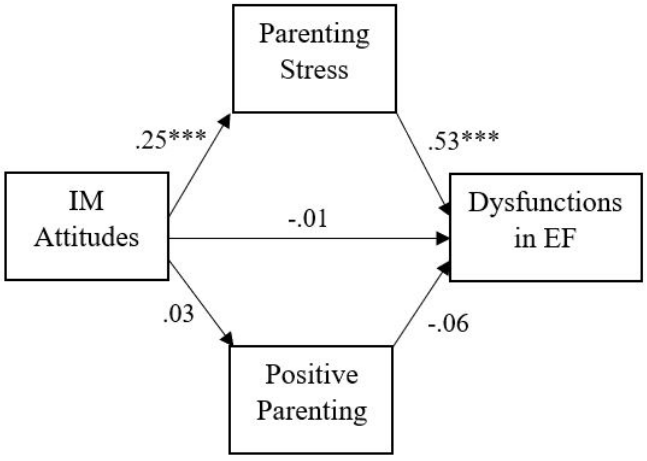
Hypothesis 2.1: The effects of IM beliefs on dysfunctions in children's executive functioning will be mediated by parenting stress and positive parenting behaviors.

Bootstrapping methodology with 10,000 replaced samples and 95% confidence intervals estimated around the indirect effect was used to examine the indirect effect of parenting stress (M_1) and positive parenting behaviors (M_2) on the relationship between IM attitudes (X) and dysfunctions in children's EF (Y). Maternal age and family resources were included in the model as covariates. Indirect effects are significant when the 95% confidence interval does not include zero. Bootstrapping methodology has been argued to provide a more powerful alternative to the causal steps regression method for testing mediation effects (Baron & Kenny, 1986; Frazier, Tix, & Barron, 2004). Model 4 (Hayes, 2013) was specified to examine the direct and indirect effects of IM attitudes on children's executive functioning through parenting stress and positive parenting (see Appendix H for a conceptual and statistical diagram).

The total effect of the model (i.e., direct and indirect effects) explained 6% of the variation in children's EF and was statistically significant ($p < .001$). Further, results revealed a marginally significant ($p < .10$) total effect, meaning that IM attitudes affects maternal reports of dysfunctions in children's EF though the relationship was not significant at the $p < .05$ value. Likewise, the direct effect of X (IM attitudes) on Y (EF) was not significant (95% CI [-3.26, 2.73]) yet the total indirect effect of IM attitudes on dysfunctions in EF was significant (95% CI

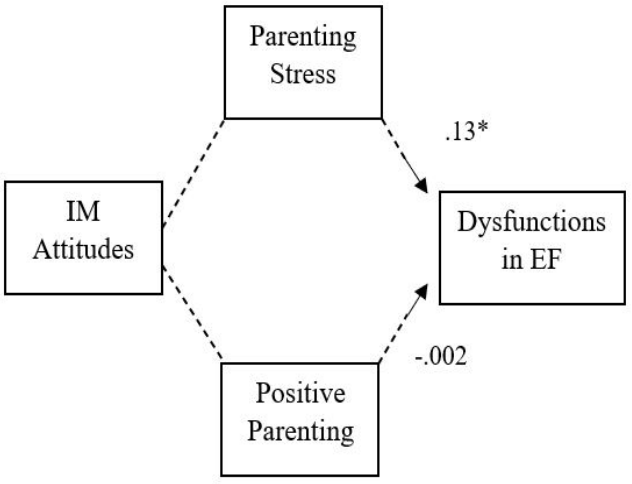
[1.27, 5.70], effect = 3.37, boot se = 1.13). These results demonstrated that the effect of IM attitudes on dysfunctions in children's EF are fully mediated by one or more mediating variables (i.e., parenting stress and/or positive parenting strategies). Further examination of the indirect effects demonstrated that parenting stress was the only significant mediating variable in the model. In particular, results of the indirect effects (see Figure 4) based on 10,000 bootstrap samples showed a significant indirect positive relationship between IM attitudes and dysfunctions in children's EF through the mediating variable of parenting stress (95% CI [.06, .21], effect = .13, boot se = .04). Positive parenting, however, was not a significant mediator (95% CI [-.02, .01], effect = -.002, boot se= .01. These results of the mediation analysis using bootstrapping methodology in the PROCESS macro suggested that IM attitudes may indirectly explain variation in children's EF through the role of parenting stress, regardless of family resources and maternal age. That is, IM attitudes contributed to higher reports of parenting stress which was associated with higher reports of dysfunction in children's EF (see Tables 3 and 4 which summarize the mediation bootstrapping results).

Figure 3
All path coefficients (direct effects).



Note. Completely standardized coefficients. $R^2 = .33$, $p < .001$
*** $p < .001$

Figure 4
Indirect effects of IM attitudes on EFs.



Note. Completely standardized coefficients. $R^2 = .06$, $P <. 001$
*$p < .05$

Table 3.

Direct Effects on Each Predictor

Predictor Variables	B	*SE*	t	BC 95% CI Lower	BC 95% CI Upper	R^2
DV: Parenting Stress (mediator)						.15***
IM Attitudes	.25	2.67	3.94***	5.27	15.79	
DV: Positive Parenting (mediator)						.06***
IM Attitudes	.03	.095	0.47	-0.14	0.23	
DV: Dysfunctions in EF						.33***
IM Attitudes	-.01	1.52	-.173	-3.26	2.73	
Parenting Stress	.53	.039	8.36***	0.25	0.40	
Positive Parenting	-.06	1.09	-.944	-3.17	1.12	

***p <. 001

Table 4.

Indirect Effects of Intensive Mothering Attitudes on Dysfunctions in Children's Executive Functions through Positive Parenting and Parenting Stress

Mediator	Estimate	*SE*	BC 95% CI Lower	BC 95% CI Upper
Positive Parenting	-.002	.006	-.02	.01
Parenting Stress	.131	.039	.06	.21
Total indirect effect	.130	.041	.05	.21

Note. Based on 10,000 bootstrap samples. BC = bias corrected; CI = confidence interval.

Hypothesis 2.2: Moderation – Degrees of cumulative risk will moderate the effects of IM beliefs on parenting stress and executive functioning.

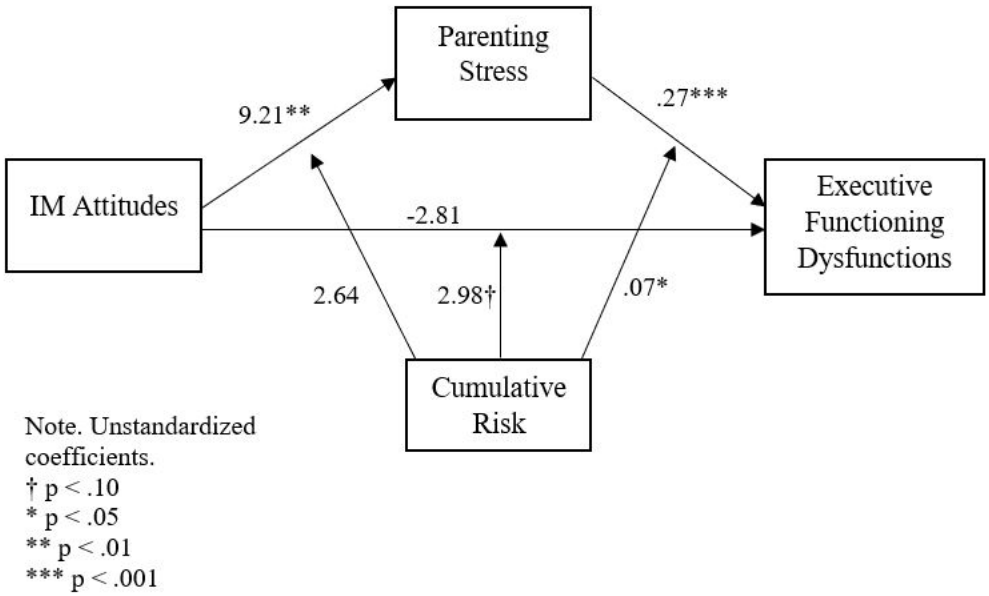
It was central to the present study to explore whether IM attitudes could be more or less adaptive within certain contexts. It was hypothesized that the relationship between IM attitudes and dysfunctions in children's EF would be mediated by parenting stress and positive parenting strategies, and that these relationships would depend upon varying levels of cumulative risk (i.e., moderation). It was originally hypothesized that mothers who endorsed IM attitudes and who also had higher levels of cumulative risk would engage in more positive parenting strategies.

However, hierarchical regression analyses and a mediation analysis in PROCESS revealed that IM attitudes did not significantly predict positive parenting strategies and IM attitudes did not indirectly contribute to variation in children's EF through positive parenting. Therefore, the final moderation model excluded positive parenting strategies as a mediating variable. Instead, it was hypothesized that cumulative risk would strengthen the relationship between IM and parenting stress (path a) and parenting stress and dysfunctions in EF (path b), thus moderate the indirect effects of IM on children's EF through parenting stress.

A conditional indirect effect model was performed using the PROCESS macro (model 59; see Appendix G) in order to test the final hypothesis that cumulative risk would moderate the indirect effects of IM beliefs on children's EF through parenting stress. Model 59 was chosen instead of model 7 which specifies moderation of the path only between the mediator (i.e., parenting stress) and the dependent variable (i.e., dysfunctions in children's EF) given the hierarchical regression analyses results that demonstrated a relationship trending significance between IM attitudes and dysfunctions in EF ($p = .07$). Figure 5 depicts the model that was tested. Maternal age was retained as a covariate in the model.

Figure 5.

Cumulative risk as a moderator.



The conditional process model advanced the mediation model by considering how family-level cumulative risk strengthens the direct and indirect effects of IM attitudes on dysfunctions in children's EF. Results revealed that the effect of the interaction between cumulative risk and parenting stress to children's EF (path b) was significant (95% CI [.00, .14], effect = .07, $p < .05$). In other words, the relationship between parenting stress and children's EF was moderated by cumulative risk. Plotted interactions (see appendix I) demonstrated that higher parenting stress scores predicted more dysfunctions in maternal reports of children's EF and that this relationship was exacerbated by cumulative risk, confirming hypothesis 2.2.

Conditional process model results also demonstrated that the effect of the interaction between cumulative risk and IM attitudes to parenting stress (path a) was not significant (95% CI

[-3.62, 8.90], effect = 2.64), meaning that risk did not weaken or strengthen the relationship between IM attitudes and parenting stress. In other words, IM attitudes appeared to contribute to maternal reports of parenting stress regardless of familial level of risk, although high-risk families reported the highest IM attitudes and the most parenting stress (see appendix H for the plotted interaction). Finally, the interaction effect between cumulative risk and IM to dysfunctions in children's EF (i.e., the direct effect/path c) approached conventional levels of statistical significance (95% CI [-.48, 6.46] effect = 2.98, $p < .10$). Interestingly, when the interaction is plotted, there is a reverse direction amongst varying levels of risk (see Appendix J). Mothers with the lowest risk and the lowest endorsement of IM attitudes reported the highest dysfunction in children's EF. Low risk mothers who were high in IM attitudes reported that their children fared well in EF, suggesting that IM attitudes may be adaptive for families who do not experience significant contextual risk. On the contrary, mothers with the highest risk and the lowest endorsements of IM attitudes reported that their children fared well in EF. High risk mothers who also highly endorsed IM attitudes reported the highest dysfunction in children's EF suggesting that IM attitudes may not be adaptive for families with more contextual risk. Though these interactions were only trending toward significance at the 90% confidence interval, they suggest that IM attitudes may have differential impacts for families who experience varying degrees of contextual risk. These results are discussed further in the following section.

CHAPTER 6: DISCUSSION

IM work goes beyond meeting children's basic childcare needs; IM encompasses cultivating young children to be their most successful through intensely focusing on children's needs and developmental growth. But what is *success* and how do parents of young children narrow in on ensuring their children are successful? Previous studies on parenting attitudes, and IM attitudes in particular, suggested that optimal outcomes or success in young children is largely defined by academic readiness or cognitive abilities (e.g., Wall, 2010). It is assumed, then, that parents of young children believe that laboriously focusing on cultivating young children's skills will contribute to the successful cognitive development of their children, but previous research has not tested these associations. Still, prior literature demonstrated the ways in which IM attitudes could contribute to negative mental health outcomes for mothers (Liss et al., 2013), which also has consequences for developing children. How, then, might IM attitudes connect with parenting processes and children's cognitive growth given these complexities?

The present study was guided by a theoretical framework formed from ecological and risk and resilience theories, as well as from previous literature on cultural parenting expectations and parenting processes. In this study, the implications for children's developmental outcomes were examined to advance previous understandings of the ways in which IM is experienced by mothers and their young children through multiple processes. IM was conceptualized as a distal, macro-level factor that would influence the proximal parenting processes of parenting stress and positive parenting strategies, which in turn would explain variation in children's executive functioning (EF). It was hypothesized that IM attitudes would contribute to variation in children's EF through positive parenting strategies, including practices that would support the development of children's EF. However, results of the multivariate analyses did not support this

hypothesis. In other words, IM attitudes did not significantly explain variation in mother's engagement in positive parenting practices, nor did positive parenting strategies explain variation in children's EF, as reported by mothers. Still, it was it was also predicted that IM attitudes would explain variation in children's EF through the mediating role of parenting stress. In contrast to the popular expectations that IM intensely cultivates children's cognitive abilities, findings from these data did not indicate any direct effects of IM attitudes on at least one aspect of young children's cognitive function in that IM attitudes did not explain variation in mothers' reports of their children's EF. However, findings revealed an important indirect pathway through which IM can influence children's EF: IM attitudes were associated with more parenting stress, and parenting stress was associated with higher reports of dysfunctions in children's EF. In other words, parenting stress completed mediated the relationship between IM attitudes and dysfunctions in children's EF. The association between parenting stress and children's EF was intensified by cumulative risk. These findings and their implications are expanded upon in the following sections.

IM and Parenting Stress

The present study adds to previous literature that postulates IM may be harmful to mothers' wellbeing. For instance, Rizzo and colleagues (2013) explored the ways in which IM beliefs correlated with negative mental health outcomes for 181 mothers of children aged 5 and under. They found that Essentialism, or the belief that mothers are essential to children's growth and development, and beliefs that raising children is challenging were correlated with higher reports of general experiences of stress. Results from this study support and extend Rizzo and colleagues (2013) findings. In particular, the subscales of the IPAQ meant to capture Essentialism and Challenging were correlated with parenting stress, and that overall IM attitudes

(i.e., composite scores) were also positively correlated with parenting stress. In fact, the mothers in this study reported higher endorsement of Essentialism and Challenging attitudes than the mothers in Rizzo and colleagues (2013), further validating their findings that IM attitudes likely contribute to maternal experiences of stress and other negative mental health outcomes. This study extended Rizzo et al.'s (2013) research, however, by more carefully delineating parenting stress, as opposed to general stress, as a central construct of interest.

"Parenting stress" captures parents' experiences with stress that are in direct relation to their parenting responsibilities (Deater-Deckard, 1998) and is an important component of mental health and parental wellbeing. In fact, parenting stress is often experienced in conjunction with other indicators of mental distress, such as depression and general low-life satisfaction (Crinic & Ross, 2017). Given the nature of IM beliefs which place immense burden on mothers, it was predicted that mothers who tended to agree with statements that exemplified IM attitudes would also indicate more experiences with parenting stress. Aside from the consequences of parenting stress for mothers, it is also well established that parenting stress has consequences for young children's developmental outcomes through indirect and direct mechanisms, though the majority of the developmental literature postulates that parenting stress indirectly impacts child outcomes through diminished parenting behaviors (e.g., harsh parenting). Still, there is also evidence that parenting stress has a direct effect on children's developmental outcomes. Indeed, Crnic and colleagues (2005) found that observed positive and negative parenting behaviors did not mediate the relationship between parenting stress and children's behavioral problems.

While previous literature was often concerned with how parenting stress was related to children's behavioral outcomes, there is merit in examining parenting stress as having an influence on children's EF given that executive functions consist of the skills necessary to direct

behavior. In fact, executive functions are thought of as the most basic cognitive skills that are necessary for the ability to control impulsive behaviors, delay gratification, focus on the task at hand and shift focus appropriately when necessary (Diamond, 2013). Indeed, results from extant literature postulate parenting stress to be an important factor with negative implications for children's EF (Joyner et al. 2009; Molfese et al. 2010). This study, then, was concerned with how mothers with IM attitudes would fare in regard to parenting stress and what that may mean for young children. The intention here was not to place undue blame on mothers, however, but to critically examine the implications of broader cultural parenting attitudes that confer pressure for mothers to be central in cultivating their children's cognitive abilities. In doing so, results demonstrated that IM not only contributed to more parenting stress in mothers, but IM also indirectly contributed to higher reports of dysfunctional EF through the process of parenting stress. In other words, IM was associated with worse EF because *intensive mothers* were more likely to *experience parenting stress*.

Given the assumptions of IM that situates the mother as being primarily responsible for the child's success (i.e., Essentialism) while maintaining multiple competing roles (e.g., full-time worker, spouse) it is not surprising that attitudes that place the child's needs in the center of family life would contribute to mothers' experiences of parenting stress. Indeed, parallel literature regarding family demography highlights the intensity of which women are engaging in childcare responsibilities while simultaneously maintaining various additional roles such as full-time employment status (e.g., Bianchi et al., 2006; Sayer & Gornick, 2011). It could be that IM attitudes are further contributing to the burden experienced by women, and mothers in particular, through perpetuating traditional gendered ideas about parenting without regard for women's roles in the workforce. In fact, Pepper (2021) explored working mothers' perceptions about their

experiences balancing mothering expectations, conceptualized as IM, and work obligations. Mothers in Pepper's (2021) qualitative investigation described their desires to maintain their work identities but also explained that they felt largely responsible for all of the domestic household duties, teaching their children traditional skills and knowledge, and playing with their children which, collectively, seemed to confer feelings of stress. On the other hand, IM beliefs may contribute to maternal experiences of parenting stress regardless of work status given the pressure mothers may experience to be intensive mothers. In fact, an ad hoc independent samples t-test analysis utilizing the data presented in this research demonstrated no significant differences in maternal reports of IM attitudes or parenting stress based on work status. In other words, IM attitudes and parenting stress did not vary based on work status, further supporting the notion that experiences of parenting stress for mothers who endorse IM attitudes may not be dependent on employment status. Still, there may be other family scenarios that do heighten mothers' experiences of parenting stress, and which may have costly implications for young children's EF.

Implications of Cumulative Risk

Findings from this study demonstrated that IM attitudes explain variation in dysfunctions in children's EF by increasing parenting stress. Still, previous literature has demonstrated that certain parenting processes are adaptive in some contexts while maladaptive in others (e.g., Gershoff et al., 2007). In this study, it was hypothesized that IM attitudes would relate to positive parenting strategies and parenting stress but that these associations would depend upon family's contextual cumulative risk. It was speculated that, while IM attitudes would likely contribute to maternal reports of parenting stress, that they could indirectly contribute to better EF in children through positive parenting strategies and that these associations might be stronger in contexts of higher cumulative risk. As such, a cumulative risk index was created based on extant literature to

capture family risk. Mothers' education, single parenthood, young parenthood, poverty, residential instability, homelessness, and low family resources were delineated as risk factors which combined to create a total risk index score. Because regression and mediation analyses revealed that IM attitudes did not significantly relate to positive parenting strategies and that maternal reports of positive parenting did not explain variation in children's EF, it was not included in the final conditional process model. However, cumulative risk did moderate the interactions between parenting stress and dysfunctions in children's EF. In other words, contexts of risk exaggerated the effects of parenting stress on children's EF.

Considering previous literature and risk and resilience theory, it is not unexpected that cumulative risk moderated the relationship between parenting stress and children's EF. It was unexpected, however, that IM did not contribute to positive parenting strategies, as reviewed, to potentially offset these effects. Given this finding, and the fact that IM did not explain variation in positive parenting, it would make sense to refine the initial conceptualization of how IM may in fact connect with family processes and child outcomes in conjunction with cumulative risk (i.e., that it could be adaptive if it contributed to positive parenting strategies). Assari's model (2018) of health disparities among Black people and Whites is applicable here as it specifies diminished gains for Black people associated with assets that significantly contribute to health among White Americans. Similar to Ungar's discussion of differential effects (2017), Assari (2018) argues that certain risks carry a stronger penalty or negative effect for Black Americans than White Americans. While it appears that IM parenting ideology may be a context of risk for all mothers and their families, cumulative risk has a "penalty" effect in that it exacerbates the relationship between parenting stress and problems with children's executive functioning—given that IM attitudes appear to significantly contribute to parenting stress, it could be considered that

IM carries additional penalty for families with more cumulative risk through the role of parenting stress and its' implications for children. Future research needs to consider more carefully the complicated pathways through which parenting ideologies and parenting stress connect with an array of child outcomes-particularly among Black families and families in poverty. Additionally, a developmental sensibility needs to be applied to these effects. For example, previous research found that parenting stress typically remains the same or increases as children age (Crnic et al., 2005). Future research should consider, then, how IM attitudes shift as children age and what this may mean for experiences of parenting stress and children's EF.

It is also worth mentioning that, while the direct effects of IM attitudes on children's EF were only trending towards significance, plotted interactions of the moderated relationship revealed group differences based on clusters of risk. Mothers who highly endorsed IM and reported high degrees of cumulative risk reported poor EF for their children while mothers low in IM attitudes within the same high-risk contexts reported better child EF. These findings give further credence to the differential effects or diminished effects possibility in that families are penalized by cumulative risk when they are also characterized as "intensive mothers". In essence and in line with the diminished effects/diminished gains model, it could be that IM attitudes contribute to more parenting stress for mothers who experience stressors related to cumulative risk factors (e.g., low financial resources), thus holding such high expectations and gendered parenting associations poses an additional risk (i.e., penalty) for families already navigating multiple adversities. It is also possible that highly-intensive mothers are also more critical of their children's development than their less-intensive counterparts. Indeed, it could be that high IM attitudes pose ideals about children's abilities, thus explaining group differences within families characterized by high-risks.

On the contrary, mothers who highly endorsed IM but reported low levels of risk reported that their children fared well in EF, yet high-resourced but less-intensive mothers reported the worse EF within this sample. It is possible that some aspects of IM, such as Stimulation and Child-Centered attitudes, could be adaptive for some families with few contextual risks or it could also be that mothers who are able to meet parenting expectations associated with IM are more optimistic about their children's abilities. Similarly, to explain why high-resourced but less-intensive mothers report deficits in children's EFs, it is possible these mothers are more critical of the children's EF than families with more contextual risks. Finally, considering a transactional framework of parent-child relations, it could also be that children with fewer EF skills explain variation in how much mothers endorse IM attitudes amongst high-resourced mothers. That is, mothers with children who struggle with tasks associated with abilities in executive functions (e.g., task persistence, behavior regulation) could be less likely to ascribe to parenting-intensive attitudes in an effort to protect their own wellbeing. Indeed, parenting children with deficits in EF is associated with more permissive parenting (Hutchison et al., 2016) and parenting stress (Crnic et al., 2005) given the high-demands associated with parenting children who have problems with executive functions. In all, these possibilities which ponder within and across-group differences based on familial contextual risk and IM attitudes should be more carefully examined in future studies.

Study Limitations and Future Directions

The present study advances current understandings of the complexity of the IM ideology by shedding light on the ways in which IM is associated with multiple parenting processes within families characterized by varying levels of cumulative risk. Still, the present research is not without limitations. First, the current study was cross-section thus causation cannot be

determined. In addition, self-report and single-reporter methods were used. In particular, the mothers in the present study reported on their positive parenting strategies and their children's EF but their perceptions could be biased. Next steps to better understanding how IM attitudes are associated with parenting strategies include the need for observational assessments. Similarly, the present study relied on maternal reports of children's EF. While parent reports of EF are reliable, it would be more rigorous to test children's abilities using trained experimenters. In this study, it was discovered that IM attitudes indirectly contributed to higher reports of dysfunctions in children's EF, but it could be that highly stress or highly intensive mothers are more critical of their children's abilities.

A second limitation of the present study is the sole focus on positive parenting strategies through the use of the PARYC measure (McEachern et al., 2012). While the PARYC was chosen to reflect the theoretical orientation of this study (i.e., a resilience framework), it could be that IM is associated with parenting strategies that are traditionally conceptualized as "negative." For instance, intensive mothers could utilize more controlling parenting strategies with their young children. Future research should more holistically consider the multitude of ways IM attitudes may confer positive and negative parenting practices, as well as consider the implications of such practices within multiple contexts. Next, the present study was informed primarily by white, middle-class mothers who were, in general, highly educated and overall "low-risk" according to the cumulative risk index in which roughly 40% of participants did not indicate any contextual risks. The research on IM attitudes and their implications for families should be advanced through future research that includes more diversity in regard to education, socioeconomic status, and ethnicity. Still, it is worth reiterating that mothers with more resources were less likely to endorse IM attitudes than low-income and low-resourced families. Thus, it should be considered

that IM may not be as predominant in more affluent families than previously documented (Hays, 1996; Lareau, 2003).

Future studies should also critically consider the ways in which ethnically diverse mothers reject or endorse IM. It could be that mothers who fall outside of the white, middle-class norm define good mothering in nuanced ways (e.g., Elliott et al., 2015; Randles, 2020). In other words, it should be considered that current conceptualizations of IM and thus measures that capture IM attitudes (e.g., IPAQ; Liss et al., 2013), are incomplete without the inclusion of parenting beliefs from mothers outside of the majority perspective. Indeed, the IPAQ was created and validated with a primarily white sample (Liss et al., 2013) and has recently been critiqued in regard to its' application to parents of different genders, races, and ethnicities (Long et al., 2021). In particular, Long and colleagues (2021) were concerned with whether the IPAQ (Liss et al., 2013) is a reliable measurement of parenting attitudes across parent genders and race. They found that, as it was originally created with 24 items, the IPAQ was not a structurally valid tool that could be used with parents across three races and two genders. Instead, Long and colleagues (2021) refined the IPAQ to include just 11 items and two subscales (Essentialism and Challenging), which they demonstrated to be reliable for use amongst mothers, though not fathers, who identified as Asian, Black, or White. As such, future analyses using the IPAQ amongst a racially diverse sample of mothers ought to consider utilizing the amended version of the IPAQ. It should still be noted, however, that an ad-hoc analysis replicated the conceptual model depicted in figure 1 (i.e., mediation analysis) utilizing a composite score of these two subscales (i.e., essentialism and challenging which combined to a sum of 11 items) did not yield significantly different results than those presented in the analyses in chapter 5.

Finally, the present study analyses were one-directional thus limiting the availability of testing a bi-directional relationship amongst specific study variables. For example, the developmental literature has long held that the relationship between parenting and children's outcomes are often bidirectional (e.g., Belsky, 2006). In fact, Baker and colleagues (2003) and Lecavalier et al. (2006) found evidence that children's behavior problems predicted parenting stress, and parenting stress also predicted children's behavior problems (i.e., a transactional model). Could it be that parenting stress experienced by the mothers in the present study is partially explained by children's EF? In other words, mothers of children with fewer EF skills could experience more stress related to parenting more difficult children regardless of their endorsement of IM attitudes. Similarly, it could be that children with problems in EF require more intensive parenting efforts on the part of mothers, thus potentially contributing to their experiences of parenting stress. Future research should carefully consider these possibilities and utilize analyses that would permit non-recursive tests.

Conclusion and Implications

Results from this study suggest that IM may not be an adaptive parenting ideology even though IM appears to be favored by many parents in the U.S. (Forbes et al., 2020; Ishizuka, 2019). At the very least, based on the moderation analysis, IM seems to have "diminished gains" with regard to proximal processes and EF outcomes for families with higher levels of cumulative risk. To elaborate, from an ecological perspective, IM is a macro-system construct that, theoretically, informs micro-level processes. The findings from this study suggest that IM may contribute to parenting stress, which had consequences for young children's EF, as reported by mothers. A surplus of literature has examined parenting stress as a multidimensional process with implications for parents and children, especially in contexts of various forms of risk. Still,

parenting stress is not often considered within a cultural context nor are the predictors of parenting stress considered in the same empirical model as outcomes of parenting stress (Crnic et al., 2005). The findings from this study advance current perspectives on parenting stress by examining IM as a macro-level cultural phenomenon with implications for parental wellbeing and children's cognitive abilities.

From a risk and resilience approach, these findings also suggest that IM could be considered a context of risk given the potential implications that such hyper-parenting attitudes appear to increase experiences of parenting stress which, in turn, related to higher EF dysfunction scores. Future research should not only more carefully consider the ways in which IM attitudes are associated with specific parenting processes within economically and racially diverse families in order to better understand the complexities of modern parenting ideologies but should also consider the ways in which current practice and policy is built upon IM ideals given these findings that suggest IM could perpetuate maternal experiences of parenting stress. As such, parenting interventions designed to support the most vulnerable families ought to consider the ways in which mothers take care of their own mental health in conjunction with meeting parenting demands. Considering that IM attitudes appear to contribute to mothers' experiences of parenting stress, which is consequential to children, practitioners working with parents of young children should be critical of intervention practices that are solely aimed at cultivating children's development. Instead, developmentally appropriate practices, including the provision of free play in a safe environment, and encouraging parents to balance their involvement in young children's activities should be considered. Not only are these tactics healthy for young children (Ginsburg, 2007), but they may also alleviate the burdensome pressure for mothers to be omnipresent in child activities. Indeed, these suggestions align with

Assari's call (2018) for multi-level interventions which more wholistically consider differential effects or diminished gains.

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APPENDICES

Appendix A

IRB Approval Letter

TO: Joyce A Arditti, Casey Marie McGregor
FROM: Virginia Tech Institutional Review Board (FWA00000572)
PROTOCOL TITLE: The Implications of Intensive Mothering Beliefs for Children's Cognitive and Emotional Competencies in the Context of Cumulative Risk: A Resilience Approach
IRB NUMBER: 21-403
Effective May 25, 2021, the Virginia Tech Human Research Protection Program (HRPP) determined that this protocol meets the criteria for exemption from IRB review under 45 CFR 46.104(d) category(ies) 2(i),2(ii).

Ongoing IRB review and approval by this organization is not required. This determination applies onlyto the activities described in the IRB submission and does not apply should any changes be made. If changes are made and there are questions about whether these activities impact the exempt determination, please submit an amendment to the HRPP for a determination.

This exempt determination does not apply to any collaborating institution(s). The Virginia Tech HRPP and IRB cannot provide an exemption that overrides the jurisdiction of a local IRB or other institutional mechanism for determining exemptions.
All investigators (listed above) are required to comply with the researcher requirements outlined at:https://secure.research.vt.edu/external/irb/responsibilities.htm
(Please review responsibilities before beginning your research.)

PROTOCOL INFORMATION:
Determined As: **Exempt, under 45 CFR 46.104(d) category(ies) 2(i),2(ii)**
Protocol Determination Date: **May 25, 2021**

ASSOCIATED FUNDING:
The table on the following page indicates whether grant proposals are related to this protocol, and which of the listed proposals, if any, have been compared to this protocol, if required.

Appendix B

The Intensive Parenting Attitudes Questionnaire

1. Both fathers and mothers are equally able to care for children.
2. Although fathers may mean well, they generally are not as good at parenting as mothers.
3. Parents should begin providing intellectual stimulation for their children prenatally, such as reading to them or playing classical music.
4. Although fathers are important, ultimately children need mothers more.
5. Parents never get a mental break from their children, even when they are physically apart.
6. Ultimately, it is the mother who is responsible for how her child turns out.
7. Being a parent brings a person the greatest joy he or she can possibly experience.
8. Parenting is exhausting.
9. It is important for children to be involved in classes, lessons, and activities that engage and stimulate them.
10. Parenting is not the most rewarding thing a person can do.
11. The child's schedule should take priority over the needs of the parent's.
12. Men do not recognize that raising children is difficult and requires skills and training.
13. Child rearing is the most demanding job in the world.
14. Holding his or her baby should provide a parent with the deepest level of satisfaction.
15. Being a parent means never having time for oneself.
16. Women are not necessarily better parents than men.
17. Men do not naturally know what to do with children.
18. A parent should feel complete when he or she looks in the eyes of his or her infant.
19. Children should be the center of attention.

20. Men are unable to care for children unless they are given specific instructions about what to do.
21. Finding the best educational opportunities for children is important as early as preschool.
22. It is harder to be a good parent than to be a corporate executive.
23. To be an effective parent, a person must possess wide ranging skills.
24. Children's needs should come before their parents.
25. It is important to interact regularly with children on their level (e.g., getting down on the floor and playing with them).

Scale Coding

Items are presented on a scale from 1 = (strongly disagree) to 6 = (strongly agree).

1. Essentialism: 1(r), 2, 4, 6, 12, 16(r), 17, 20
2. Fulfillment: 7, 10(r), 14, 18
3. Stimulation: 3, 9, 21, 25
4. Challenging: 5, 8, 13, 15, 22, 23
5. Child-Centered: 11, 19, 24

Appendix C

The Parenting Stress Index- Short Form (4th Edition)

Read each statement carefully. For each statement, click the response that best represents your opinion. **Answer all questions about the same Target Child.**

Options are on a scale from 1 - 5: (1) strongly disagree, (2) disagree, (3) not sure, (4) agree, (5) strongly agree

1. I often have the feeling that I cannot handle things very well.

2. I find myself giving up more of my life to meet my children's needs than I ever expected.

3. I feel trapped by my responsibilities as a parent.

4. Since having this child, I have been unable to do new and different things.

5. Since having a child, I feel that I am almost never able to do things that I like to do.

6. I am unhappy with the last purchase of clothing I made for myself.

7. There are quite a few things that bother me about my life.

8. Having a child has caused more problems than I expected in my relationship with my spouse/parenting partner.

9. I feel alone and without friends.

10. When I go to a party, I usually expect not to enjoy myself.

11. I am not as interested in people as I used to be.

12. I don't enjoy things as I used to.

13. My child rarely does things for me that makes me feel good.

14. When I do things for my child, I get the feeling that my efforts are not appreciated very much.

15. My child smiles at me much less than I expected.

16. Sometimes I feel my child doesn't like me and doesn't want to be close to me.

17. My child is very emotional and gets upset easily.

18. My child doesn't seem to learn as quickly as most children.

19. My child doesn't seem to smile as much as most children.

20. My child is not able to do as much as I expected.

21. It takes a long time and it is very hard for my child to get used to new things.

22. I feel that I am: (Choose a response from the choices below.)

    a. A very good parent

    b. A better-than-average parent.

    c. An average parent.

    d. A person who has some trouble being a parent.

    e. Not very good at being a parent.

23. I expected to have closer and warmer feelings for my child than I do, and this bothers me.

24. Sometimes my child does things that bother me just to be mean.

25. My child seems to cry or fuss more often than most children.

26. My child generally wakes up in a bad mood.

27. I feel that my child is very moody and easily upset.

28. Compared to the average child, my child has a great deal of difficulty in getting used to changes in schedules or changes around the house.

29. My child reacts very strongly when something happens that my child doesn't like.

30. When playing, my child doesn't often giggle or laugh.

31. My child's sleeping or eating schedule was much harder to establish than I expected.

32. I have found that getting my child to do something or stop doing something is: (choose a response from the choices below.)

a. Much harder than I expected.

b. Somewhat harder than I expected.

c. About as hard as I expected.

d. Somewhat easier than I expected.

e. Much easier than I expected.

33. Think carefully and count the number of things which your child does that bothers you. For example, dawdles, refuses to listen, overactive, cries, interrupts, fights, whines, etc. (choose a response from the choices below.)

a. 1-3

b. 4-5

c. 6-7

d. 8-9

e. 10+

34. There are some things my child does that really bother me a lot.

35. My child's behavior is more of a problem than I expected.

36. My child makes more demands on me than most children.

Subscales

1. Parental Distress- Items: 1-12
2. Parent-Child Dysfunctional Interaction- Items: 13-23, 34
3. Difficult Child- Items: 24, 25-33, 35-36

*Items 22 and 23 should be reverse coded

Appendix D

Parenting Young Children (PARYC)

Parenting young children can be hard at times. Thinking about your parenting practices during the past month:

1. *Fill in the circle that best describes how often you were able to do the following items on a scale from 1 to 7.*
2. *For each item, rate whether or not this was a problem for you during the past month.*
3. *For each area of parenting, please fill in the circle that tells us if you would like to change, on a scale from 1 to 7.*

SHARING FUN AND SUPPORTING GOOD BEHAVIOR

Think about parenting your child in the past month. Were you able to...

A. Play with your child in a way that was fun for both of you?

B. Stand back and let your child work through problems s/he might be able to solve (such as putting a puzzle together)?

C. Invite your child to play a game with you or share an enjoyable activity?
D. Notice and praise your child's good behavior (such as, "Good job putting away your toys.")?
E. Teach your child new skills (such as tying their shoes)?
F. Involve your child in household chores?
G. Invite your child to play a game with you or share an enjoyable activity?
H. Reward your child when s/he did something well or showed a new skill?

Thinking about the items above, would you like to do things differently in this area of parenting?

(Yes/No)

SETTING RULES AND FOLLOWING-THROUGH:

Think about parenting your child in the past month. Were you able to...

A. Stick to your rules and not change your mind?
B. Speak calmly with your child when you were upset with him or her?
C. Explain what you wanted your child to do in clear and simple ways?
D. Tell your child what you wanted him/her to do rather than tell him/her to stop doing something?
E. Tell your child how you expected him or her to behave (such as in the grocery store)?

F. Set rules on your child's problem behavior that you were willing/able to enforce?
G. Make sure your child followed the rules you set all or most of the time?

Thinking about the items above, would you like to do things differently in this area of parenting?

(Yes/No)

PLANNING AHEAD WITH YOUR CHILD:

Think about parenting your child in the past month. Were you able to...

A. Avoid struggles with your child by giving clear choices (such as offering toast or cereal for breakfast)?
B. Warn your child before a change of activity was required (such as a five-minute warning before leaving the house in the morning)?
C. Plan ways to prevent problem behavior (such as feeding your child before going to the store)?
D. Give reasons for your requests (such as "We must leave in five minutes, so it's time to clean up.")?
E. Make a game out of everyday tasks (such as picking up toys) so your child followed through?
F. Break a task into small steps (such as "Put your shoes on first and then get your coat." instead of "Get ready to go.")?

G. Prepare your child for a challenging situation (such as going to a toy store or starting a new school)?

Thinking about the items above, would you like to do things differently in this area of parenting?

(Yes/No)

Appendix E

BRIEF-P (2-5 year old's)

This questionnaire contains 63 statements. Read each statement carefully and click the response that best represents your opinion. We would like to know if your child has had problems with these behaviors during the ***past 6 months****. Think about the child as you read each statement and select your response.*

Scale is 1-3 where, 1= Never, 2= Sometimes, 3= Often

1. Overreacts to small problems
2. When given two things to do, remembers only the first or last.
3. Is unaware of how his/her behavior affects or bothers others
4. When instructed to clean up, puts things away in a disorganized, random way
5. Becomes upset with new situations
6. Has explosive, angry outbursts
7. Has trouble carrying out the actions needed to complete tasks (such as trying one puzzle piece at a time, cleaning up to earn a reward)
8. Does not stop laughing at funny things or events when others stop
9. Needs to be told to begin a task even when willing to do it.
10. Has trouble adjusting to new people (such as babysitter, teacher, friend, or day care worker)
11. Becomes upset too easily
12. Has trouble concentrating on games, puzzles, or play activities
13. Has to be more closely supervised than similar playmates
14. When sent to get something, forgets what he/she is supposed to get
15. Is upset by a change in plans or routine (for example, order of daily activities, adding last minute errands to schedule, change in driving route to store)
16. Has outbursts for little reason
17. Repeats the same mistakes over and over even after help is given
18. Acts wilder or sillier than others in groups (such as birthday parties, play group)
19. Cannot find clothes, shoes, toys, or books even when he/she has been given specific instructions
20. Takes a long time to feel comfortable in new places or situations (such as visiting distant relatives or new friends)
21. Mood changes frequently
22. Makes silly mistakes on things he/she can do
23. Is fidgety, restless, or squirmy
24. Has trouble following established routines for sleeping, eating, or play activities

25. Is bothered by loud noises, bright lights, or certain smells
26. Small events trigger bigger reactions
27. Has trouble with activities or tasks that have more than one step
28. Is impulsive
29. Has trouble thinking of a different way to solve a problem or complete an activity when stuck
30. Is disturbed by changes in the environment (such as new furniture, things in room moved around, or new clothes)
31. Angry or tearful outbursts are intense but end suddenly
32. Needs help from an adult to stay on task
33. Does not notice when he/her behavior causes negative reactions
34. Leaves messes that others have to clean up even after instruction
35. Has trouble changing activities
36. Reacts more strongly to situations than other children
37. Forgets what he/she is doing in the middle of an activity
38. Does not realize that certain actions bother others
39. Gets caught up in the small details of a task or situation and missed the main idea
40. Has trouble "joining in" at unfamiliar social events (such as birthday parties, picnics, holiday gatherings)
41. Is easily overwhelmed or overstimulated by typical daily activities
42. Has trouble finishing tasks (such as games, puzzles, pretend play activities)
43. Gets out of control more than playmates
44. Cannot find things in room or play area even when given specific instructions
45. Resists change of routine, foods, places, etc.
46. After having a problem, will stay disappointed for a long time
47. Cannot stay on the same topic when talking
48. Talks or plays too loudly
49. Does not complete tasks even after given directions
50. Acts overwhelmed or overstimulated in crowded, busy situations (such as lots of noise, activity, or people)
51. Has trouble getting started on activities or tasks even after instructed
52. Acts too wild or out of control
53. Does not try as hard as his/her ability on activities
54. Has trouble putting the brakes on his/her actions even after being asked
55. Unable to finish describing an event, person, or story
56. Completes tasks or activities too quickly
57. Is unaware when he/she does well and not well
58. Gets easily sidetracked during activities
59. Has trouble remembering something, even after a brief period of time
60. Becomes too silly
61. Has a short attention span
62. Plays carelessly or recklessly in situations where he/she could be hurt (such as playground, swimming pool)

63. Is unaware when he/she performs a task right or wrong

Subscales and Items:

Subscale	**Items**
Inhibit	3 8 13 18 23 28 33 38 43 48 52 54 56 58 60 62
Shift	5 10 15 20 25 30 35 40 45 50
Emotional Control	1 6 11 16 21 26 31 36 41 46
Working Memory	2

	7 12 17 22 27 32 42 47 51 53 55 57 59 61 63
Plan/Organize	4 9 14 19 24 29 34 39 44 49

Appendix F

Family Resources Scale

This scale is designed to assess whether or not you and your family have adequate resources (time, money, energy, and so on) to meet the needs of the family as a whole as well as the needs of individual family members. For each item, please circle the response that best describes how well the needs are met on a consistent basis in your family (that is, month-in and month-out).

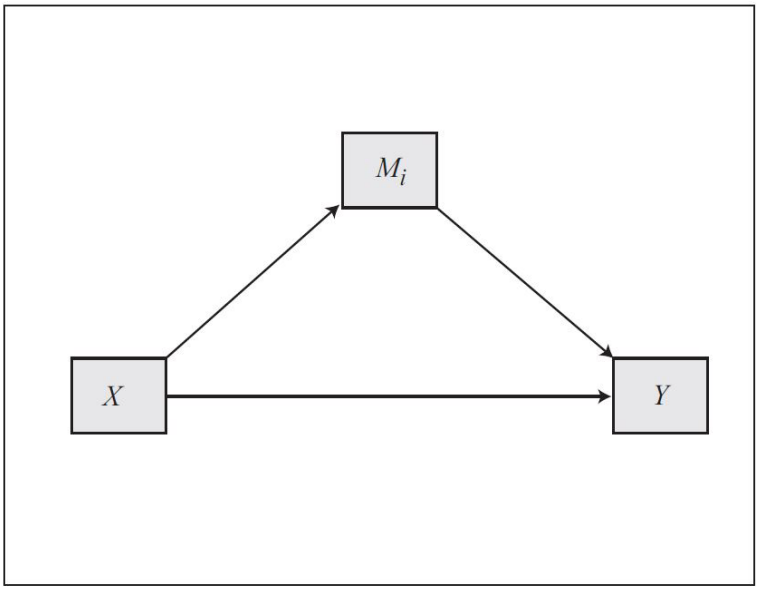
(Responses are on a 5 point Likert-type Scale from "Not at all adequate" to "Almost always adequate")

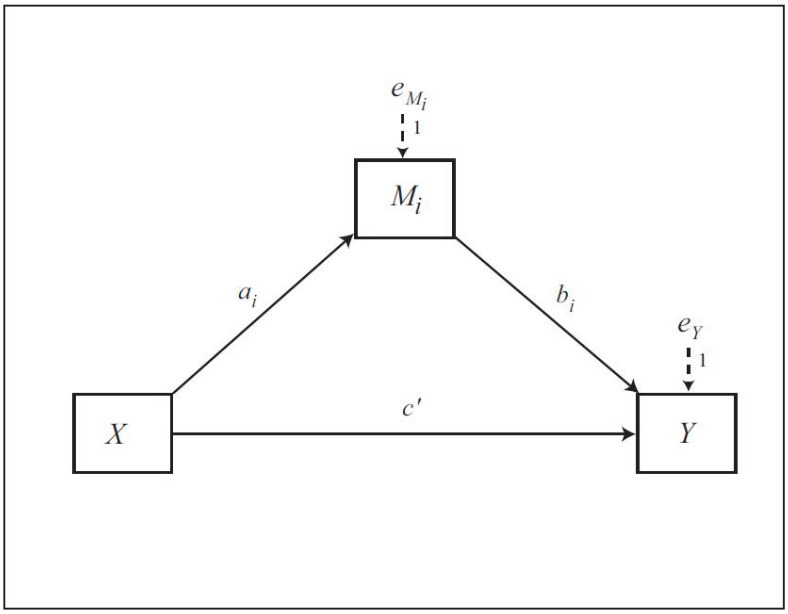
1. Food for 2 meals a day
2. House or apartment
3. Money to buy necessities
4. Enough clothes for your family
5. Heat for your house or apartment
6. indoor plumbing/water
7. Money to pay monthly bills
8. Good job for yourself or spouse
9. Medical care for your family
10. Public assistance (SSI, AFDC, Medicaid, etc.)
11. Dependable transportation (own car or provided by others)
12. Time to get enough sleep/rest
13. Furniture for your home or apartment
14. Time to be by self
15. Time for family to be together
16. Time to be with children
17. Time to be with spouse or close friend
18. Telephone or access to a phone
19. Babysitting for your child(ren)
20. Childcare/day care for your child(ren)
21. Money to buy special equipment/supplies for child(ren)
22. Dental care for your family
23. Someone to talk to
24. Time to socialize
25. Time to keep in shape and looking nice
26. Toys for your child(ren)
27. Money to buy things for self

28. Money for family entertainment
29. Money to save
30. Travel/vacation

Appendix G

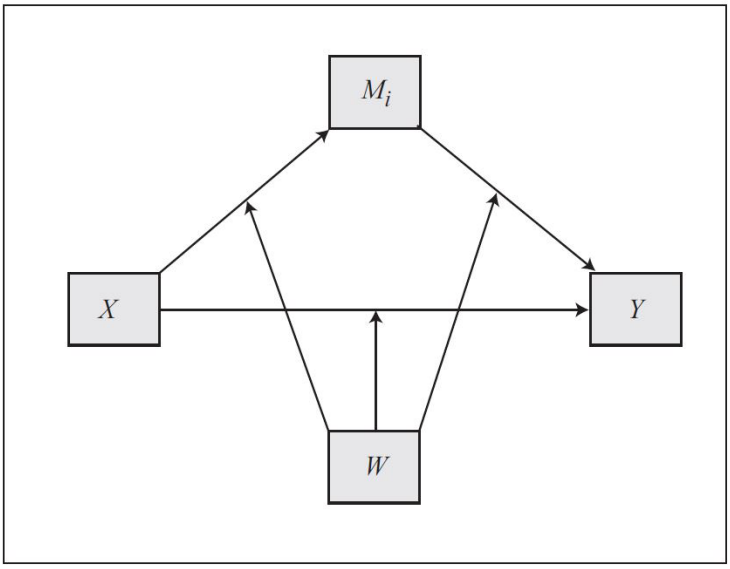
Hayes Model 4 (Conceptual and Statistical Diagrams)

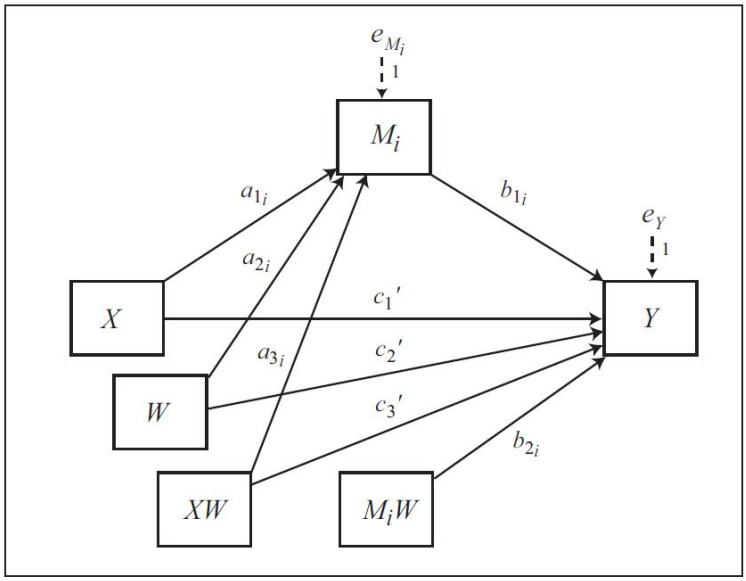




Appendix H

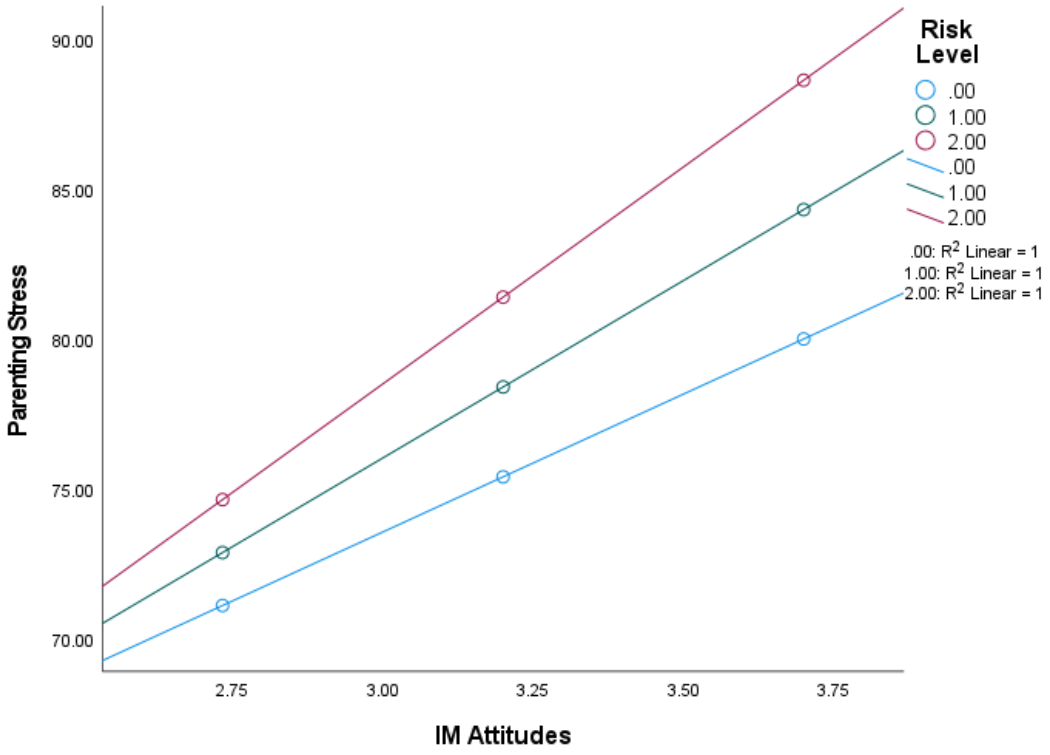
Hayes Model 59 (Conceptual and Statistical Diagrams)





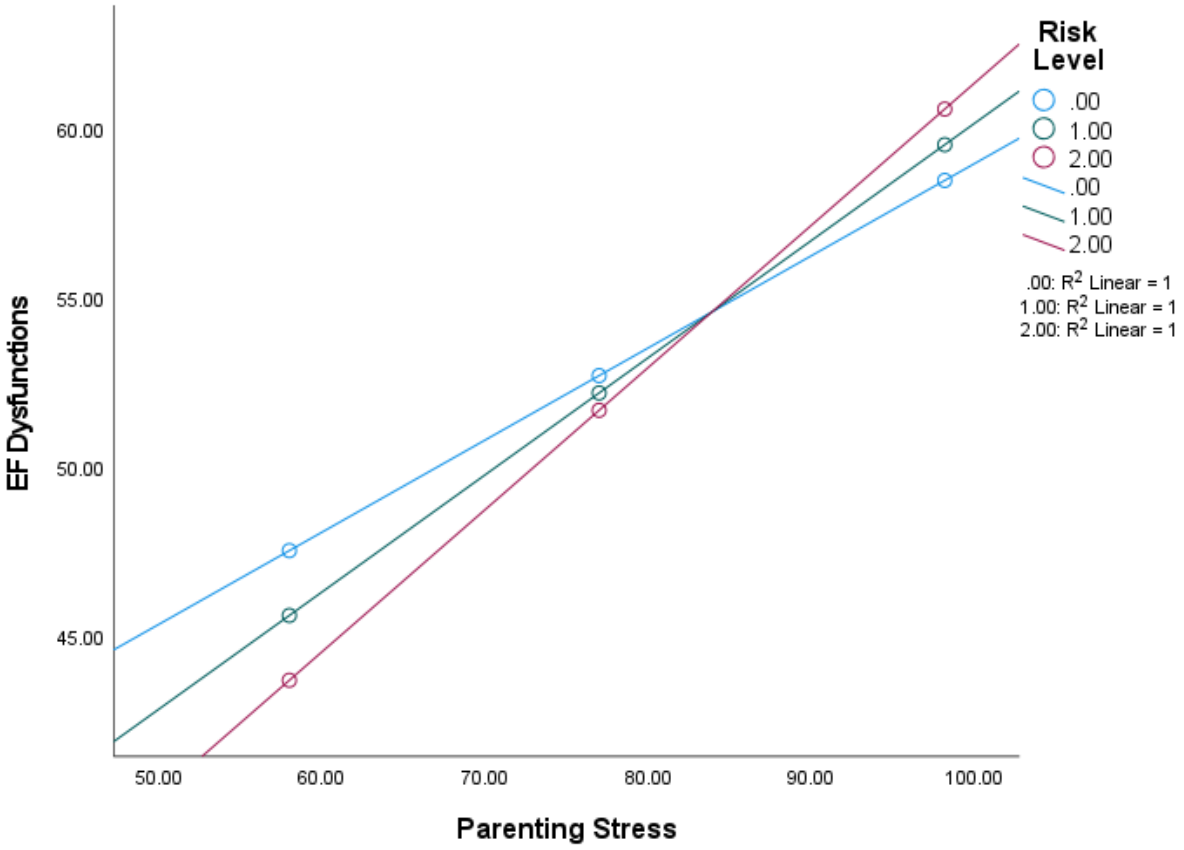
Appendix I

Plotted Interaction: Parenting stress and IM Attitudes within Degrees of Cumulative Risk



Appendix J

Plotted Interaction: Dysfunctions in Executive Functioning and Parenting Stress within Degrees of Cumulative Risk



Appendix K

Plotted Interaction: Dysfunctions in Executive Functioning and IM Attitudes within Degrees of Cumulative Risk