Socializing Social Emotional Skills Across Ethnic Minority Families

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APPROVAL OF THE DISSERTATION

The dissertation, “Socializing Social Emotional Skills Across Ethnic Minority Families”, has been approved by the Graduate Faculty of the Curry School of Education and Human Development in partial fulfillment of the degree requirements for the degree of Doctor of Philosophy.

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Dedication

This dissertation is dedicated to my mother, my homeschool teacher for third grade through fifth grade and my teacher in life. You always had a clear lesson plan.

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Problem Statement

Social emotional competencies allow for control of behavior, cognitions, and emotions (Jones & Doolittle, 2017). In early childhood, social emotional skills enable children to demonstrate social competence and behavioral conduct in the classroom while also processing academic information to complete early math operations and literacy tasks (Blair & Razza, 2007; Bohlmann & Downer, 2016; Fuchs et al., 2010; Garner & Waajid, 2012; Harvey & Miller, 2017). Families invest in socializing their children's social emotional skills to build the foundation for academic achievement throughout their lifespan (Evans & Rosenbaum, 2008; Farley & Kim-Spoon, 2017; Moilanen & Manuel, 2019). The current research on family socialization of social emotional skills emphasizes parental warmth, responsiveness and stress in parent-child interactions (Baumrind, 1971; Bronson, 2000; Conger et al., 2002; Gershoff et al., 2007; Grolnick & Ryan, 1989). However, this research may not reflect the socialization approaches of diverse families and their children (Karreman et al., 2006; Melendez, 2005; Mesman et al., 2012), a growing demographic in the United States (United States Census Bureau, 2018).

Social emotional skills relevant to academic achievement have been established according to White, middle class values and practices (Karreman et al., 2006).

Furthermore, many studies of social emotional skills in ethnic minority populations seek to compare ethnic minority trajectories of social emotional skill development to that of White or other racial/ethnic groups at the cost of explaining culturally specific mechanisms for socialization of social emotional skills within ethnic minority groups (Knight et al., 2009; McLoyd & Steinberg, 1998). As a result, socialization processes of social emotional skills are not well identified in ethnic minority families, limiting our ability to provide necessary supports for their school readiness that reflect the needs of ethnically diverse children.

In a similar vein, research on socialization of social emotional skills must be more inclusive of the socializing roles of non-parental family members such as siblings. Older siblings are not only apt to form relationships and engage in interactions with younger children that facilitate social emotional skills such as cognitive regulation (Hill & Palacios, 2019), but they may be an integral part of ethnic minority families' adaptive cultural approach to socializing social emotional skills (Killoren et al., 2015; Raeff et al., 2000). In order to take a more inclusive approach to social emotional research that supports ethnic minority families, it is necessary to explore how families socialize social emotional skills in early childhood within ethnic minority groups.

Defining Social Emotional Skills

Social emotional skills consist of domains of skills that are jointly active in managing emotions, behavior, and cognitions (Blair & Diamond, 2008; McClelland & Cameron, 2011). Social emotional skills are conceptualized as encompassing a variety of competencies, including social and interpersonal skills, emotional processes, and cognitive regulation (Jones & Doolittle, 2017). Specifically, emotional processes apply

to identification of emotions in oneself and others, as well as regulation and expression of emotions. Social and interpersonal skills involve pursuing successful social interactions by meeting social expectations and rules and appropriately judging the behavior of others (Bronson, 2000; Jones & Dolittle, 2017). Lastly, cognitive regulation refers to directing and redirecting attention and behavior in support of a particular task as well as preparing and problem solving (Jones & Doolittle, 2017; McClelland & Cameron, 2011). Importantly, a child's emotional response is dictated by the ability of the child to regulate thoughts and behaviors, and a child's emotional state also influences her regulatory response (Blair, 2002; Blair & Diamond, 2008). In Manuscript 1 of my dissertation, I focus on Approaches to Learning (ATL), a construct for cognitive regulation (i.e. focusing attention) and social and interpersonal aspects (i.e. helping others) of social emotional skills. ATL captures multiple social emotional competencies and are thought to be directly applicable to children's learning (Li-Grining et al., 2010). For Manuscript 2, I focus on social and interpersonal skills as they apply to social expectations and rules in shared reading interactions. In Manuscript 3, I investigate emotional processes, cognitive regulation, and social and interpersonal skills underlying social emotional skills in preschool.

Social emotional skills as a competency for academic achievement. In early childhood, social emotional skills prepare children to meet behavioral and social demands for classroom conduct (Bohlmann & Downer, 2016; Rimm-Kaufman et al., 2009). Social emotional skills such as emotional processes and cognitive regulation are essential for supporting early math and language skills (Garner & Waajid, 2012; Harvey & Miller, 2017). The social emotional construct of ATL, a composite of social and

interpersonal skills and cognitive regulation, is directly associated with reading achievement (Li-Grining et al., 2010; Xu et al., 2010). Social emotional skills are also integral to early reading in particular, as early reading often takes on the form of guided or shared reading (Aram & Aviram, 2009; Bus, 2003; Bus & van Ijzendoorn, 1995; Doyle & Bramwell, 2006). In guided or shared reading, children demonstrate social emotional competencies such as behavioral and emotional engagement in reading, cooperative interaction with other readers, and effective communication with other readers to seek help, obtain information, and interact with the text (Aram & Aviram, 2009; Bus, 2003; Bus & van Ijzendoorn, 1995; Doyle & Bramwell, 2006). As part of shared reading, development of social emotional skills for early reading ability starts in the home environment (Bernier et al., 2012; Baker, 2013; Segers et al., 2016), where families are responsible for the socialization inputs that build children's social emotional skills.

Socialization of Social Emotional Skills

Achieving social emotional skills such as cognitive regulation and emotional processes requires children to progress from external regulation of emotions, cognitions, and behavior to internalization of social emotional skills (Bronson, 2000; Kopp, 1982). Internalization of social emotional skills occurs in the context of interactions between children and other family members. More specifically, children develop social emotional skills by internalizing strategies for meeting expectations and demands introduced in interaction with family members. Parents build children's social emotional skills by familiarizing children with expectations for social interaction and competency development and imposing expectations on children to carry out developmentally

appropriate tasks. Parents also supply scaffolds that support the child in regulating cognitions, emotions, and social behavior such as monitoring the child's actions, providing control to set parameters for appropriate and inappropriate behavior, providing feedback on a child's actions, and creating opportunities for autonomy and leadership (Bronson, 2000; Grolnick & Ryan, 1989; Calkins et al., 1998; Kuczynski & Kochanska, 1995). In order to achieve independent emotional processes, children must first learn to express their emotions and cope effectively with emotional arousal and stress. Parents model emotional expression and coping strategies by regulating their own emotions and responding to children's emotional arousal, supporting positive affect and comforting negative affect (Bronson, 2000; Eisenberg et al., 2005; Calkins et al., 1998; Kochanska et al., 2000). However, the occurrence of the above processes of parental socialization of social emotional skills is largely a factor of the quality of parent-child interactions and relationships (Baumrind, 1971; Bronson, 2000; Grolnick & Ryan, 1989; Karreman et al., 2006; Matte-Gagné et al., 2018; von Suchodoletz et al., 2011).

The quality of parent-child interactions is indicated by elements of parenting such as the attachment relationship with the child, parenting behaviors, and the parental attitudes driving those parenting styles and behaviors (Darling & Steinberg, 1993). In high-quality parent-child relationships in which children have secure attachment with parents, and parents employ parenting styles characterized by warm and responsive parenting behaviors, the structured environment supports socialization of social emotional skills (Ainsworth et al., 1978; Bergin & Bergin, 2009; Darling & Steinberg, 1993). Secure attachment relationships seem to be significant for social emotional skills because the child develops a secure bond with the parent to explore and operate based on

an emerging sense of self, implementing parents' inputs in order to regulate the self (Baumrind, 1971; Bronson, 2000; Grolnick & Ryan, 1989). Within this secure attachment relationship, a parenting style characterized by warm and responsive parenting behaviors is considered to be important for cognitive regulation development such as effortful control (Nordling et al., 2016) and executive functions growth from toddlerhood through the beginning of schooling (Matte-Gagné et al., 2018; McCormick et al., 2016). Additionally, in secure attachment relationships involving responsive and warm parenting behaviors, parents establish opportunities to participate in shared reading and related social emotional skills needed for shared reading (Bus, 2003; Bus & van Ijzendoorn, 1995). However, parent-child interactions and their role in children's social emotional skills are influenced by contextual factors to which families must adapt. The family stress model considers the impact of economic hardship on parent child interactions. Family stress brought on by economic hardship sets off cascading events of harm to the parent-child relationship and reduced levels of positive parenting, ultimately negatively influencing child adjustment such as social emotional skills (Conger et al., 2002; Farley & Kim-Spoon, 2017; Gershoff et al., 2007). Thus, parental warmth and responsiveness create interactions that support socialization of social emotional skills; in contrast, parental stress disrupts the types of interactions that support parental socialization of social emotional skills.

In the dialogue around socialization of social emotional skills, parents are portrayed as the primary agents of socialization, and parent-child interactions are the settings in which socialization of social emotional skills occurs. Despite the positioning of parents as key socializing agents of social emotional skills,

socialization is also instigated by non-parental family members (i.e. siblings) who form critical relationships with younger children. Reliance on siblings may be a more common system of socialization in cultures that endorse collectivism such as Latinx families (Greenfield & Cocking, 2014; Raeff et al., 2000). Therefore, building a comprehensive understanding of contexts of socialization of social emotional skills that reflects ethnic minority families requires understanding of parents and siblings as socializing agents.

Adaptive Cultural Approach to Socialization of Social Emotional Skills

Though secure attachment, parental warmth, responsiveness, and stress have been identified as interactional contexts for socializing social emotional skills in the family, this research may not adequately address how these contexts for socialization of social emotional skills are shaped by culture (Meléndez, 2005). Culture, or the belief system held by an ethnic group, defines approaches to parenting behavior that, once internalized, translate to patterns of interaction with children (Bronfenbrenner, 1977; Vélez-Agosto et al., 2017). Culture is actively present in microsystems of direct interaction between the child and family members and macrosystems exerting distal influence on the child's socialization (Vélez-Agosto et al., 2017). Previous conceptualization of the socialization of social emotional skills has relied on dominant cultural frames of secure attachment relationships as well as parenting attitudes and behaviors centered on warmth, responsiveness, and stress. These frames have been applied with ethnic minority families under the assumption that these parenting approaches to socialization are mutually adaptive for ethnic minority groups. However, non-White families may practice cultural value systems that are divergent from that of the dominant culture and are reflective of

minoritized experiences (Coll et al., 1996), suggesting that socialization mechanisms may vary in adaptiveness based on the sociocultural context. Therefore, conventional constructs for family socialization mechanisms of social emotional skills may not be reflective of minoritized experiences because they are based on the dominant culture. When assessing how these constructs function for racial/ethnic minority families, constructs may either be adaptive, maladaptive, or invalid in sociocultural context.

The integrative model (Coll et al., 1996) captures the sociocultural influences on socialization of children's developmental competencies within ethnic minority groups. The integrative model includes eight constructs of sociocultural influence, of which I focus on family and adaptive culture. In navigating sociocultural factors, the agents must develop an adaptive cultural approach to socializing social emotional skills. Adaptive culture is defined as the "goals, values, attitudes, and behaviors" (Coll et al., 1996, p.1904) held by minority families that are responsive to current contextual demands and the ethnic group's political, economic, and cultural history. When conceptualizing adaptive culture as shaping the formation of developmental competencies such as social emotional skills, adaptive culture operates within the family system (Perez-Brena et al., 2018). Adaptive culture shapes the values and goals of family members regarding social emotional skills and ultimately manifests in the behaviors and styles that minority families rely on in interacting with their children to develop their children's social emotional skills. Using the framework of adaptive culture, we rely on traditional constructs as an initial investigation as to the adaptiveness of these constructs.

Defining Family Socialization of Social Emotional Skills through the Lens of Adaptive Culture: A Within Group Approach

Systemic oppression experienced by those in minoritized social positions impacts the distribution of resources and supports that make an environment promoting or inhibiting of development of competencies (Coll et al., 1996) such as social emotional skills. Existing studies of social emotional skill development in ethnic minority families are largely based on families of low socioeconomic status, given the notable overlap between ethnic minority families and economically disadvantaged communities (Kia-Keating et al., 2018; Raver et al., 2011). Though poverty inhibits development of social emotional competencies (Sharkins et al., 2017; Yoshikawa et al., 2012), few efforts have been taken to disentangle the influence of socioeconomic context from that of ethnic minority culture on social emotional skill development. As a consequence, developmental differences resulting from inhibiting environments and contexts are wrongfully attributed to race/ethnicity or culture (Knight et al., 2009).

Additionally, studies of social emotional skills are often based on a comparative approach in which socialization of social emotional skills is compared between racial/ethnic groups. A strength of comparative studies is the ability to test for variation in mechanisms of socializing social emotional skills between racial/ethnic groups. In Paper 1 we take a comparative approach to assess whether parenting mechanisms function similarly or differently across racial/ethnic groups in contributing to reading through social emotional skills. Yet comparative studies may also contribute to the deficit-oriented research practice of comparing racial/ethnic groups, presenting practices in the dominant racial/ethnic group as the superior standard and classifying other ethnic groups as inferior for not meeting that “standard”. Establishing the standard based on one racial/ethnic group and one cultural value system fails to acknowledge that mechanisms

of socializing social emotional competencies may be unique to each racial/ethnic group; moreover, the standard may not be relevant or adaptive for non-dominant racial/ethnic groups and their cultural value systems. In order to effectively study family socialization of social emotional skills that occurs within an ethnic minority group according to cultural value systems and promoting or inhibiting environments, there is a need to consider whether current conceptualizations of approaches to socializing social emotional skills are adaptive for ethnic minority families.

Though warm and responsive parenting seem to be valuable dimensions of parenting style for cultivating emotional and behavioral facets of Black[1] and Latinx[2] children's development (Elmore & Gaylord-Harden, 2013; McCabe et al., 2016; Pintar Breen et al., 2018), there is less consensus on the role of warmth and responsiveness in socializing social emotional skills relevant for reading achievement in Latinx families (Bae et al., 2014; Raver et al., 2007). Furthermore, the adaptiveness of warmth for socializing social emotional skills in Black and Latinx families may be dependent on alignment with cultural expectations and the inhibiting or promoting nature of the environment in which families operate (Barbarin & Jean-Baptiste, 2013; Bakermans-Kranenburg et al., 2004; Harris & Graham, 2014; LeCuyer & Swanson, 2017; Lugo-Candelas et al., 2015; Pintar Breen et al., 2018). Similarly, parental stress seems to play a role in Latinx families' socialization of young children's social emotional skills. However, implications of the family stress model for socialization of social emotional

[1] African American or Black are racial/ethnic labels used based on the population of interest in the literature cited. Black is the label used in the dataset for Manuscripts 1 and 3 and is inclusive of African American families.

[2] Latinx is used as the racial/ethnic label referring to the population of interest who claim heritage from Latin American countries used in the literature cited and for Manuscript 2. Hispanic is the label used in the dataset for Manuscript 1, and is inclusive of Latinx families.

skills may vary for Latinx and Black families, based on the source of parental stress and the influence of parental stress on parenting practices (Conger et al., 2002; Raver et al., 2007). Therefore, a key research aim should be to assess the role of parental warmth and stress in contributing to social emotional skills within racial/ethnic minority groups, allowing for variation in the influence of parental warmth and stress by race/ethnicity. In Manuscript 1 (Hill & Palacios, under review), we investigate the relevance of these parental socialization mechanisms of warmth and stress for early childhood reading achievement when mediated by social emotional skills, examining variation across Asian, Black, Hispanic, and White families. By assessing whether socialization of social emotional skills functions similarly or differently across race/ethnicity, we can identify developmental prerequisites and investments uniquely important for minority children's school readiness and achievement in reading. In Manuscript 2 (Hill et al., 2020), we study older sibling supports for socioemotional skills during a reading task within Latinx families. Using a qualitative case study approach, we hope to gain understanding of the mechanisms through which Latinx minority families socialize social emotional skills to meet academic goals for practicing early literacy through practices that may be culturally specific. In order to establish socialization mechanisms that are uniquely adaptive for Black children and families, we implement a quantitative, within group approach of latent profile analysis in Manuscript 3 (Hill, under review) to capture typologies of parental socialization that occur within Black families for cultivating social emotional skills.

In the sections that follow, we introduce the three dissertation manuscripts in which I pursue an examination of how ethnic minority families socialize social emotional skills in early childhood.

Introduction to Dissertation Manuscripts

In Manuscript 1 (Hill & Palacios, under review), we explore a mediation model to consider whether components of parenting such as parental warmth and stress contribute to children's reading achievement through emerging social emotional competencies. We use data from the Early Childhood Longitudinal Study: 2011 Kindergarten (n = 17,020) to investigate kindergarten ATL as a mediating mechanism in the association between parental warmth and stress in kindergarten and reading achievement in first grade. Secondly, we use conditional process analysis to assess the degree to which mediation is moderated by child race/ethnicity. Identifying the mediation model reveals mechanisms through which parents support children's school readiness as they transition into elementary school by investing in social emotional skills. Findings suggest that parental warmth contributes positively to first grade reading achievement through enhanced ATL, while parental stress contributes negatively to first grade reading achievement when ATL skills suffer. By considering how the mediation functions across four major racial/ethnic groups of the United States, we consider the universality of conventional processes of socializing social emotional skills (warmth and stress) for ethnic minority families. Findings highlight that processes may be similar across racial/ethnic groups. In light of considering parenting constructs that are more culturally specific than those in the present study, parenting interventions must be reflective of how ethnic minority families implement parental warmth and navigate parental stress in socializing their children's social emotional skills in the early years of schooling.

In Manuscript 2 (Hill et al., 2020), we expand conceptualization of socialization strategies typically reserved for parent-child interactions to apply to older sibling-child

interactions. Furthermore, we focus on socialization of social emotional competencies that arise in the context of activities for building emergent literacy such as shared book reading. Since reading may be more likely to take the form of a collective activity facilitated by older siblings in Latinx families (Li-Grining, 2012; Killoren et al., 2015; Raeff et al., 2000), and shared reading environments are ripe for socioemotional skill development (Bus, 2003; Bus & van Ijzendoorn, 1995; Doyle & Bramwell, 2006) shared reading tasks are an ideal environment to study socialization of social emotional skills through a lens that is inclusive of parental and non-parental socialization roles. We use theoretical thematic analysis of transcripts of observations of family book time to investigate how older siblings in three Latinx immigrant case families interact with younger focal children to support social emotional skills in the context of shared reading interactions. When exploring the role of older siblings in early childhood socialization, we consider how older siblings model and facilitate development of social emotional competencies (Bronson, 2000). We find that in parallel with socialization strategies of parental caregivers, older siblings use practices that co-occur with warm and responsive interactions styles to support social emotional skills.

Despite the significance of socializing social emotional skills in early childhood (Jones & Doolittle, 2017), the mechanisms through which Black families socialize children's social emotional skills in early childhood have not been adequately defined. In Manuscript 3 (Hill, under review), I implement latent profile analysis (LPA) to investigate: *RQ1) Which typologies of parenting emerge among Black families? and RQ2) How are the typologies predictive of preschool social emotional skills in Black children?* In identification of the latent profile model, I assess patterns of parenting

behaviors, parenting attitudes, and attachment relationships, in Black families at the 2-year data collection wave of the Early Childhood Longitudinal Study-Birth Cohort (n = 1,750; National Center for Education Statistics). I then test whether the profiles generated are predictive of Black focal children's social emotional skills at the preschool wave of data collection. Ultimately, latent profile analysis suggests that Black families exercise a range of parenting typologies such as High Multidimensional Support, Average Multidimensional Support, Authoritative Low Support, Dependent Physical Discipline, and Low Support High Security. Moreover, profiles are predictive of preschool social emotional outcomes: High and Average Multidimensional Support profiles may have the most positive implications for social emotional skills, but profiles such as Low Support High Security also present benefits to certain skills over the Authoritative Low Support profile. Findings reveal inputs for Black children's early social emotional skills that are not only more representative of Black parenting approaches but highlight systems of positive development in Black children.

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Manuscript 1: The Influence of Parental Warmth and Stress on Reading through Approaches to Learning: Racial/Ethnic Variation

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Hill, T.Y. & Palacios, N. (under review). The influence of parental warmth and stress on reading through Approaches to Learning: Racial/ethnic variation.

Abstract

When identifying parental socialization processes influencing children's reading achievement, building social emotional skills is a potential underlying mechanism. Yet socialization (i.e. warmth, stress) of social emotional skills may vary based on the sociocultural context of ethnic minority families. Using the ECLSK: 2011 (N = 17,020; M_{Age} = 73.43 mos, SD = 4.48 mos), we explored: RQ1) Do kindergarten approaches to learning (ATL) mediate the association between parental warmth and stress and first grade reading, and RQ2) Is mediation moderated by race/ethnicity (White, Black, Hispanic, Asian)? ATL mediated the association between parental warmth and stress and reading, such that parental warmth contributed positively to reading through higher ATL, and parental stress contributed negatively to reading through lower ATL. However, the lack of moderation suggests that the adaptiveness of parental warmth and maladaptiveness of parental stress for children's reading through ATL may be similar across race/ethnicity. Findings inform intervention and practice targeting children's school readiness.

From kindergarten to first grade, children begin solidifying their ability to read as a foundation for developing academic content expertise (Clemens et al., 2017; Pinto et al., 2016). Though parental socialization inputs in early childhood have strong implications for children's reading achievement (Bae et al., 2014; Merlo et al., 2007; Oxford & Lee, 2011; Puccioni, 2018; Shelleby & Ogg, 2019), the exact mechanisms through which parents socialize children to achieve in reading are unclear. Typically, literature on parental socialization of school readiness in early childhood emphasizes the significance of warm and responsive interactions for catalyzing development of social emotional skills (Karreman et al., 2006; Nordling et al., 2016). Additionally, parental stress can deter from interactions valuable for social emotional development by leading to less responsive and more severe parenting as well as conflict between parent and child (Conger et al., 2002). Social emotional skills may be a key mechanism through which parents shape children's early reading development. Therefore, it is necessary to determine whether parents establish children's readiness for reading by supporting the development of children's classroom social emotional skills such as Approaches to Learning (ATL).

Additionally, the majority of research on the association between parental socialization and social emotional skills has been conducted with White, middle class families (Karreman et al., 2006; Meléndez, 2005). Consequently, previous work may neglect the sociocultural factors that frame the development of social emotional skills in ethnic minority families (John & Tarullo, 2019). Considering variation in how psychological mechanisms function across ethnic minority groups allows us to acknowledge that inputs to socialization of social emotional skills such as warmth and

stress may not be mutually adaptive (or maladaptive) for ethnically diverse families (Coll et al., 1996). In addition to exploring ATL as a mediating mechanism through which parental warmth and stress influence reading achievement, we investigate whether the model varies for families of different races/ethnicities, including White, Black, Hispanic, and Asian American children.[3] Findings may inform culturally relevant practices in parenting and school readiness interventions in order to more effectively serve ethnically diverse children and families.

Parenting and Reading

Especially in the early years of childhood, the home is the formative environment in which parents socialize children to engage in reading (Baker, 2013; Segers et al., 2016). Early reading skills emerging in the home environment such as letter recognition and print knowledge are indicators of later literacy and fluency reading academic texts (Clemens et al., 2017; Pinto et al., 2016). Reading academic content is essential to children's learning. Parental warmth characterizes the quality of the relationship and environmental resources that parents provide for children's academic development in reading (Baumrind, 1971). By establishing clear expectations and providing emotional and autonomy support for the child in the form of parental warmth, the child is able to explore independently (Baumrind, 1971). In contrast, parental stress is known to be associated with decreased reading achievement and may in fact detract from achievement by driving negative parenting practices or limiting positive practices in the home environment that normally support school readiness and adjustment (Conger at al., 2002; Oxford & Lee, 2011). Overall, parental warmth has been associated with more supportive

[3] Labels for racial/ethnic groups are consistent with those used in the Early Childhood Longitudinal Study (National Center for Education Statistics).

reading environments (Tamis-LeMonda et al., 2001), while parental stress has been associated with reduced parental prioritization of education, including reading (Respler-Herman et al., 2012).

Parenting and Social Emotional Skills

Children's social emotional skills encompass the ability to effectively modulate attention and cognitions, which falls in the domain of cognitive regulation, modulate social interaction and behavior, which falls in the domain of social and interpersonal skills, and modulate emotional expression and responses, which falls in the domain of emotional processes (Jones & Doolittle, 2017). Children develop social emotional skills such as cognitive regulation, social and interpersonal skills, and emotional processes by internalizing strategies for meeting expectations and demands in the context of social interaction (Bronson, 2000; Kopp, 1982). Before a child can independently exercise social emotional skills to regulate thoughts, emotions, and behavior, they require external regulation from caregivers to navigate their environment (Bronson, 2000; Kopp, 1982). Parents build children's social emotional skills by familiarizing children with expectations for social interaction and competency development (Calkins et al., 1998; Kuczynski & Kochanska, 1995). Parents supply scaffolds for the child to regulate, understand parameters of behavior, and exercise autonomy and leadership (Baumrind, 1971; Bronson, 2000; Grolnick & Ryan, 1989; Karreman et al., 2006). These socialization practices are encompassed in the parental constructs of warmth, sensitivity, and secure attachment styles, which are thought to be most adaptive for social emotional skills (Karreman et al., 2006; Nordling et al., 2016). Hence, parental warmth is likely important for development of early reading due to its role in supporting children's shift

from other-regulated to more independent regulation. It may be that parental warmth is associated with more positive reading outcomes, in part because parental warmth is supporting the development of social emotional skills.

As conceptualized in the model of experiential canalization of social emotional development, chaotic and harsh caregiving practices alter neurological processing of the child such that cognitive regulation skills such as executive functions might suffer (Blair & Raver, 2012; Gershoff et al., 2007). Therefore, parental stress functions as a detrimental, cascading effect in which the child's interaction with the parent may be limited in duration and quality, and the child lacks opportunities to advance their social emotional development. It may be that parental stress is associated with negative reading outcomes by creating a less supportive environment for the development of social emotional skills.

Social Emotional Skills as Mediator

In this section we will review the literature on the association between parental warmth and stress and social emotional skills, acknowledging the potential for social emotional skills to function as a mediating mechanism between parental factors and reading achievement.

Parental warmth. In one study on the influence of aspects of parental warmth and cognitive regulation, a latent variable for parental responsiveness including warm acceptance was positively associated with conflict executive functioning and delay inhibition in an ethnically diverse, low-income sample of 5-year-old children (Merz et al., 2017). High maternal warmth also seems to be adaptive for inhibitory control development, such that the contribution of poor attentional control in infancy to poor

inhibitory control at age 6 was minimized under high maternal warmth (Cioffi et al., 2019). Additionally, parental warmth was found to contribute to higher reading achievement directly in two previous studies (Merlo et al., 2007; Shelleby & Ogg, 2019) and through the agency of the child in a separate study (Gurdal et al., 2016). Therefore, warm interactions supply opportunities for practicing social emotional skills, establishing the prerequisite skills for early literacy development. It is necessary to expand on these findings by identifying the role of parental warmth in building children's social emotional skills to optimize academic ability in reading as they progress through schooling.

Parental stress. Living with economic hardship imposes economic pressure, which is detrimental to the mental health of the parent. The depressed mood of the parent impacts family functioning by provoking interactions characterized by conflict and diminished responsivity and warmth with the child, which ultimately manifests in negative child adjustment (Conger et al., 2002; Gershoff et al., 2007). There is some evidence that components of the family stress model such as maternal postnatal depression negatively influence adolescent achievement in English through executive functioning (Pearson et al., 2016). Thus, further research should replicate findings implicating social emotional skills such as cognitive regulation as a key mediating mechanism through which parental stress influences reading achievement, particularly in the critical developmental period of early childhood.

ATL: Social Emotional Competencies

ATL encompass attentional capacities such as application and flexibility of attention, organization, and persistent effort, as well as helping behavior consistent with cognitive regulation and social and interpersonal skills underlying social emotional skills

(Li-Grining et al., 2010; Jones & Doolittle, 2017). As parents guide children in exploration, they may provide opportunities for children to practice social emotional skills such as ATL, which are foundational for learning in the home and classroom (Baumrind, 1971; Bronson, 2000; Grolnick & Ryan, 1989; Karreman et al., 2006). If supported appropriately by the parent, the child will feel motivated to acquire novel academic skills or apply existing knowledge in creative ways in academic activities. Furthermore, a self-regulated child enlists their attentional capacities in service of building academic skills and deepening understanding of content. Composites of self-regulatory competencies that are similar to ATL (See learning-related skills in Cerda et al., 2014, Li-Grining et al., 2010, and McClelland et al., 2006; See Approaches to Learning in McWayne et al., 2004) as well as the ECLS-K composite of ATL are associated with more positive reading achievement (Li-Grining et al., 2010; Xu et al., 2010). Moreover, cultivating ATL in particular may socialize children to engage and excel in literacy tasks due to exercising agency and initiative to advance beyond basic decoding.

Given evidence of the association between parenting and social emotional skills (Gershoff et al., 2007; Karreman et al., 2006; Nordling et al., 2016), ATL may be an important mediating mechanism whereby parenting is internalized by children and manifests in specific learning behaviors that are associated with school readiness and academic achievement. Xu and colleagues (2010) have demonstrated that ATL mediate the association between parental involvement and reading achievement (Xu, et al, 2010). As indicated earlier, parental warmth and stress are also key factors associated with reading achievement, and may be socialization factors that promote early social

emotional skills, specifically ATL. Building on the Xu et al. (2010) study, we propose that ATL are a mediating mechanism through which the parental inputs of warmth and stress are internalized by the child and take form as an approach to learning skills applicable to reading.

Between-Group Variation in ATL by Race/Ethnicity

Limited research has examined the development of cognitive regulation from a cultural perspective (LeCuyer & Zhang, 2015). While social and interpersonal skills and emotional processes may seem more amenable to culture, culture also plays a significant part in the goal-directed behavior underlying cognitive regulation, as goal formation is predicated on values and belief systems (Trommsdorff, 2009). Some evidence suggests that ATL are universally adaptive for children's academic achievement across diverse ethnicities in the ECLS-K (Li-Grining et al., 2010). Race/ethnicity largely did not interact with fall kindergarten ATL to predict fifth grade reading or math growth from kindergarten to fifth grade, with two exceptions. The interaction between Other and ATL positively predicted math growth in children between fall kindergarten and spring fifth grade, while the interaction between Hispanic and ATL negatively predicted reading growth in children between spring kindergarten and spring fifth grade (Li-Grining et al., 2010).

We propose that children's social emotional skills underlying ATL mediate the association between parental warmth and stress and reading achievement. Although parts of the mediation pathway such as the pathway from parental warmth and stress to psychological adjustment and between warmth and stress and academic outcomes have been tested within ethnic minority families in the U.S. (Conger et al., 2002; Hou et al.,

2016; McCabe et al, 2016), to our knowledge studies have not tested the full mediation model within racial/ethnic populations in the United States. Parenting socialization processes, such as parental warmth and stress, are culturally constructed (Trommsdorff, 2009). As such, the nature of associations between these socialization processes and outcomes, may be different for children of varying racial/ethnic backgrounds. Given the importance of parenting context, particularly parental warmth and stress for early social emotional skills, it is necessary to consider the extent to which the indirect associations between parental warmth and stress and reading achievement outcomes through ATL differ for White, Black, Hispanic, and Asian families.

Racial/ethnic differences have been found in parental ratings of their children's ATL behaviors, while no contrasts have been tested in the association between ATL and other parenting predictors or between ATL and reading. While the ATL ratings of White and Black parents for their children were comparable, White parents' ratings of their children were higher than that of Hispanic, non-English speaking parents and Asian parents (García & Weiss, 2015). There may be variation in the types of social emotional behaviors prioritized and socialized in different ethnic groups based on the levels of warmth and stress in their families. Yet the comparative nature of many of the studies of ATL do not inform the culturally specific socialization mechanisms through which ethnically diverse parents promote ATL behavior.

Moderated Mediation by Race/Ethnicity

Given that the role of parental warmth and stress in development of social emotional skills and academic competencies are established based on dominant cultural norms, the experiences and cultures of ethnic minorities are neglected (Karreman et al.,

2006; Meléndez, 2005). Thus, it is critical to examine adaptiveness of warmth and stress for children's social emotional skills in families of diverse races/ethnicities.

Black children. There have been mixed findings as to the importance of parental warmth in Black families, especially in using warmth relative to control as part of conventional parenting styles. Research has documented Black families as exhibiting lower levels of warmth (Barbarin & Jean-Baptiste, 2013; Chao & Kanatsu, 2008) and elevated levels of control (Barbarin & Jean-Baptiste, 2013) compared to other ethnic groups. Warm parenting practices of elaborating, supporting, explaining, and scaffolding were associated positively with increased language performance, social competence, literacy performance (Barbarin & Jean-Baptiste, 2013), and reading achievement overall (Bae et al., 2014). Evidence suggests that Black mothers effectively cultivated cognitive regulation such as autonomous compliance and responsibility in young children by incorporating warmth and authoritative parenting practices and minimizing authoritarian practices (Bae et al., 2014; LeCuyer & Swanson, 2017). However, contextual factors may compel Black families to rely on authoritarian parenting style as an adaptive approach in harsh environments (Harris & Graham, 2014), or as a means of maintaining parental authority (Barbarin & Jean-Baptiste, 2013). Therefore, it is critical to understand whether for Black families, parental warmth is a parental input that is conducive to academic success in reading when utilized to socialize children's social emotional skills.

Previous studies point to strong fit of the family stress model for White, Hispanic, and Black children, with minor variation (Conger et al., 2002; Raver, Gershoff, & Aber, 2007). Minor variations suggested that elevated parent stress was even more detrimental for parenting practices for Black and Hispanic families, yet the association between

positive parenting practices and social competence was not as strong for Black families relative to White families (Raver et al., 2007). Given the implications of parental stress for parenting practices and psychological adjustment of the child (Conger et al., 2002), the influence of parental stress on reading achievement through the child's social emotional skills should be explored.

Hispanic children. Though findings are mixed as to levels of parental warmth reported in Hispanic families compared to other ethnic groups (McCabe et al., 2016; Deater-Deckard et al., 2011), parental warmth and supportiveness have developmental relevance for Hispanic children's social emotional skills, seeming to protect against behavioral problems (McCabe et al, 2016) and promote emotion knowledge (Pintar Breen et al., 2018). However, a lack of warm or supportive parenting may not be as maladaptive for Hispanic children's emotion knowledge, social competence, and reading, potentially due to alignment with Hispanic cultural values of maintaining respect for authority and good behavior (Bae et al., 2014; Lugo-Candelas et al., 2015; Pintar Breen et al., 2018; Raver et al. 2007). Therefore, it is essential to build on previous work to determine the developmental significance of parental warmth for academic achievement in reading through cognitive regulation capacities in Hispanic families.

As mentioned earlier, the manner in which parental stress negatively influenced development of social emotional skills and academic competencies in Hispanic families seems to be consistent with that of other ethnic groups, though the influence of parental stress may be more intense within Hispanic families (Raver et al., 2007). However, parental stress attributed to acculturation may have implications for the social emotional

skills of Hispanic children socialized by foreign born or immigrant parents demonstrating high parental stress (Li-Grining, 2012).

Asian American children. In the Asian American pan-ethnic group, expectations founded in the Confucianist belief system pertain to children demonstrating discipline, self-control, and inhibitory control to preserve collective harmony (Oh & Lewis, 2008). As a result, parents may not prioritize warmth in the form of support of individual goals or emotions. Asian American (South Asian, Vietnamese, Filipino, Korean, and Chinese) parents of adolescents exhibited significantly less parental warmth than European Americans (Chao & Kanatsu, 2008). Indigenous parenting constructs such as nurturing the child by favoring infants' physical needs over emotional needs (Chen & Rubin, 2011; Ahadi, Rothbart, & Ye, 1993), and training them to be disciplined, work hard, exhibit good behavior, and ultimately succeed in school (Chao, 1994; Mistry et al., 2016) may be more fitting depictions of Asian parental warmth, especially parental warmth that contributes to academic achievement through robust social emotional ability.

A version of the family stress model constructed around stresses associated with the acculturation process contributed to parent child conflict, resulting in negative academic (decrease in GPA) and psychological adjustment outcomes for Asian American adolescents (Hou et al., 2016). Though the source of parental stress may vary for Asian American families, parental stress could ultimately prove harmful for Asian American children's reading achievement. Further research should identify whether the harm that parental stress contributes to academic achievement functions through diminished social emotional skills or ATL.

In summary, when assessing parental warmth and stress as mechanisms for development of children's early academic achievement, warmth may be protective for social emotional skills in Black, and Hispanic families (Barbarin & Jean-Baptiste, 2013; McCabe et al, 2016), and less relevant for social emotional skills in Asian families (Chao, 1994; Mistry et al., 2016). Parental stress overall appears to be maladaptive for social emotional skills across race/ethnicity (Hou, Kim, & Wang, 2016; Raver et al., 2007). However, it is important to examine the influence of warmth and stress in socializing social emotional skills for the classroom such as ATL, noting the implications for children's achievement in reading for different racial/ethnic groups.

The Present Study

A typical conceptualization of adaptive parenting for the development of reading achievement features the importance of parental warmth and parental stress as key socialization factors (Gershoff et al., 2007; Karreman et al., 2006; Nordling et al., 2016). Parental warmth and stress may influence academic success by shaping the emergence of social emotional skills, such as ATL. In order to expand on the literature on parental socialization (Conger et al., 2002; Gurdal et al., 2016; Karreman et al., 2006; Merlo et al., 2007; Nordling et al., 2016; Pearson et al., 2016; Xu, et al, 2010) to highlight mechanisms for children to excel in reading, it is necessary to assess whether the social emotional skills of ATL mediate the association between parental warmth and stress. ATL social emotional skills may enable children to harness information and behavior to effectively maneuver demands for reading achievement. Thus, in the present study we investigate the initial research question (RQ1): Do kindergarten ATL mediate the association between parental warmth and stress and first grade reading? In support of

previous evidence linking parental warmth and stress to social emotional skills (Gershoff et al., 2007; Karreman et al., 2006; Merz et al., 2017; Nordling et al., 2016) and implicating social emotional skills as a mediating mechanism between parental warmth and stress and reading (Gurdal et al., 2016; Pearson et al., 2016), we hypothesize that ATL mediate the association between parental warmth and stress and reading achievement.

Classical conceptualization of positive parenting additionally ignores contextual factors, specifically the greater cultural value systems that are the source of parents' guiding beliefs and goals for children's social emotional skills (Trommsdorff, 2009). Therefore, current techniques of modeling social emotional development must shift away from a deficit-oriented approach that establishes White parenting as ideal to represent varying developmental mechanisms within minority ethnic groups. In the present study, we expand on work on parenting and social emotional skills based on White families (Gershoff et al., 2007; Karreman et al., 2006; Merz et al., 2017; Nordling et al., 2016) and in ethnic minority families (Barbarin & Jean-Baptiste, 2013; Hou, Kim, & Wang, 2016; McCabe et al, 2016; Raver et al., 2007) to investigate whether parental mechanisms influencing reading through social emotional skills vary depending on race/ethnicity. In other words, we assess whether the role of parental warmth and stress in supporting the development of ATL functions similarly across racial/ethnic groups. We implement Hayes' (2019) conditional process analysis approach in considering the following (RQ2): Does child race/ethnicity (White, Black, Hispanic, or Asian) moderate the mediation pathway? Our approach to the present study of social emotional skills will make a significant contribution to the literature by allowing researchers to examine whether

processes of building ATL in interactions defined by parental warmth and stress to support children's school readiness are culturally relevant for different racial/ethnic groups in the United States.

We hypothesize that the pathway from parental warmth to ATL behavior (the *a* pathway) and the pathway from parental warmth to reading achievement (the *c'* pathway) will be moderated by race/ethnicity. We will not test moderation of the pathway from ATL to reading due to a focus on the role of culture in shaping divergent mechanisms of parental socialization (Trommsdorff, 2009). Due to evidence suggesting that Black families could rely on authoritarian parenting especially in low-SES contexts (Harris & Graham, 2014; LeCuyer & Swanson, 2017), parents may express higher levels of control or prioritization of control over warmth and sensitivity. Therefore, parental warmth may not function similarly to other ethnic groups in contributing to academic achievement through ATL. Similarly, if Asian American families place greater weight on children's physiological well-being, self-control, and harmony with the family over providing emotional support (Ahadi et al., 1993; Chen & Rubin, 2011; Oh & Lewis, 2008), we hypothesize that parental warmth may not be essential in driving Asian children's academic achievement through stronger ATL. However, we hypothesize that parental warmth will support reading achievement through enhanced ATL for White children and Hispanic children, given the positive implications of warmth and supportiveness for emotional and behavioral development (McCabe et al., 2016; Pintar Breen et al., 2018).

We believe the pathway from parental stress to ATL and the direct effect pathway will also be moderated. Given previous evidence of applicability of the family stress model across race/ethnicity (Raver et al., 2007), we believe that parental stress will

contribute to lower reading achievement due to stress having a harmful influence on ATL behavior, contributing to an overall negative indirect effect. However, in line with previous findings of more amplified effects in ethnic minority families (Conger et al., 2002; Raver et al., 2007), the magnitude of the indirect effect will likely be stronger for Hispanic families than European families. We predict that the magnitude will be strongest for Black families, who are primarily of low socioeconomic status and likely subjected to greater parental stress spurred from material hardship (Conger et al., 2002; Raver et al., 2007).

Method

Analytical Sample

We conducted longitudinal analyses using restricted data from the kindergarten and first grade waves of the Early Childhood Longitudinal Study-Kindergarten to Second Grade Cohort (ECLS-K:2011; National Center for Education Statistics), a nationally representative and ethnically diverse sample of children (N = 18,170). Sampling for the ECLS-K involved three stages based on 90 primary sampling units from geographic regions across the United States and oversampling of Native Hawaiian, Asian Pacific Islander, and Asian families, and resulting in a selection of 1,221 clusters of public and private schools. Fall first grade assessments were conducted with a subsample of children from one third of the original primary sampling units, but all student participants from the kindergarten base year were included in the spring first grade sample (Tourangeau et al., 2017). The analytical sample for the current study includes White (49.9%), Black (14.1%), Hispanic (26.9%), and Asian (9.1%) children (n = 17,020). Children who were Other, Native Hawaiian/Other Pacific Islander, non-Hispanic, and American

Indian/Alaska Native, non-Hispanic were excluded from the study sample. A slight majority (52.2%) of the sample was at or above 200 percent of the poverty threshold (in the remainder of the sample, 25.7% were below the poverty threshold, and 22.1% were at or above poverty threshold below 200 percent). For the majority of families (55.4%), the highest level of parental education was above high school but no college (in the remainder of the sample, 19.5% of parents had less than a high school degree, and 25.1% completed college or above). Most families (79.6%) spoke English at home, and most families (73.7%) also had at least one U.S. born parent (compared to 26.3% both foreign born parents). Lastly, most of the sample had an older sibling in the house (58.9%). The sample cohort in the current study started kindergarten in fall of 2010, with child reading assessments collected in the fall and spring of kindergarten through second grade. Data was also collected from focal children's parents, from which we use parent reports on children's ATL, parental warmth, and stress taken in spring of kindergarten as well as demographic information (Tourangeau et al., 2017).

Measures

Parental warmth. The predictor variable for parental warmth is a composite of four items from the kindergarten spring parent interview questions from the section on discipline, warmth, and emotional supportiveness. The parent rated the following statements on a scale ranging from completely true (1), mostly true (2), somewhat true (3), not at all true (4) (not ascertained, don't know, refused, and not applicable responses coded as missing): "{CHILD} and I often have warm, close times together.", "Most of the time I feel that {CHILD} likes me and wants to be near me", "Even when I'm in a bad mood, I show {CHILD} a lot of love", and "I express affection by hugging, kissing,

and holding {CHILD}" (National Center for Education Statistics, 2012, Spring). The composite was created by reverse coding each item and taking the sum across all items (Beaver et al., 2007). Hence, higher scores on the parental warmth composite are indicative of stronger parental endorsement of warmth behaviors (Overall: $\alpha = .67$; Asian children: $\alpha = .63$; Black children: $\alpha = .70$; Hispanic children: $\alpha = .69$; White children: $\alpha = .66$).

Parental stress. The predictor variable for parental stress is a composite of four items based on the Parenting Stress Index (Abidin, 1990) from the spring kindergarten parent interview section on discipline, warmth, and emotional supportiveness. The parent rated the following statements on a scale ranging from completely true (1), mostly true (2), somewhat true (3), not at all true (4) (not ascertained, don't know, refused, and not applicable responses coded as missing): "Being a parent is harder than I thought it would be.", {CHILD} does things that really bother me.", "I find myself giving up more of my life to meet {CHILD}'s needs than I ever expected.", and "I often feel angry with {CHILD}," (National Center for Education Statistics, 2012, Spring). The composite was created by reverse coding the items and taking the average across all items. Previous studies have used similar four-item composites as part of nationally representative datasets (Kim et al., 2007; Moore et al., 2007; Nomaguchi & House, 2013). Thus, higher scores on the parental stress composite indicate endorsement of higher levels of stress related to parenting and the parent-child relationship (Overall: $\alpha = .60$; Asian children: $\alpha = .58$; Black children: $\alpha = .59$; Hispanic children: $\alpha = .59$; White children: $\alpha = .62$).

Reading achievement. Reading achievement is the outcome variable based on a scale score on a 120-item assessment administered in spring of first grade. Reading

achievement in spring of kindergarten is included as a covariate in the model. Assessments occurred in two stages, with the first stage used to establish the level of difficulty for the next stage of assessment. Items were composed of language and literacy skills ranging from fundamental skills such as letter and word recognition and print familiarity to more advanced skills such as reading comprehension and vocabulary knowledge (Tourangeau et al., 2017). Assessors collected children's responses to word and pictorial images on an easel and to short passages as part of a larger direct cognitive assessment. The reading achievement items had high reliability (θ = .93-.95; Tourangeau et al., 2017).

ATL. The ATL variable used in the analyses is a composite created for the ECLS-K (Tourangeau et al., 2017). As described in the codebook, the composite is an average score of six items rated by parents in the spring of kindergarten on a scale ranging from never (1) to very often (4) and which related to the frequency of the following learning behaviors: "keep working at something until finished; show interest in a variety of things; concentrate on a task and ignore distractions; help with chores; eager to learn new things; creative in work and play" (Tourangeau et al., 2017). As reported by the ECLS-K, the ATL items for the spring of kindergarten had a reliability of .98 for the overall sample (White children: α = .97; Black children: α = .99; Hispanic children: α = .98; Asian children: α = .97).

Covariates and auxiliary variables. We included covariates that have previously been established in the literature as being predictive of social emotional skills and reading achievement (Baker, 2013; Hill & Palacios, 2019; Li-Grining et al., 2010) as well as auxiliary variables in the model. Due to minimal change between fall and spring of

kindergarten in ATL, we did not include previous ATL as a covariate in order to maintain model parsimony. Covariates and auxiliary variables included in the model for prior reading achievement in spring of kindergarten, home environment quality (See Appendix), parental education (1 = completed college or above [omitted], 2 = above high school but no college, 3 = less than high school degree), poverty threshold level (1 = below poverty threshold, 2 = at or above poverty threshold but below 200 percent, 3 = at or above 200 percent of poverty threshold [omitted]), foreign born parent status (0 = at least one U.S. born parent; 1 = both foreign born parents), English home language (0 = primary language other than English; 1 = English as primary language), and older siblings (1 = older sibling; 0 = no older/younger siblings).

Results

Analytical Strategy

We performed structural equation modeling in Stata 14.0 (StataCorp, 2014) to test Models 1 and 2 to examine our key research questions: (RQ1) Do kindergarten ATL mediate the association between parental warmth and stress and first grade reading (RQ2) Does child race/ethnicity moderate the mediation pathway? Importantly, we used parental warmth and stress measured in spring of kindergarten due to a lack of measures of the parent child relationship in the previous, fall kindergarten wave of the ECLS-K (Tourangeau et al., 2017). All models were run with clustered standard errors for school and including the covariates described in the aforementioned covariates and auxiliary variables section[4].

[4] We did not use sampling weights, so inferences from the current study apply to the specific sample population.

Model 1. In Model 1.1, we modeled the association between parental warmth and stress in the spring of kindergarten and reading achievement in spring of first grade (parental warmth and stress were entered simultaneously in the model). In Model 1.2, we then added ATL, measured in the spring of kindergarten, as a mediator between parent warmth and stress and reading achievement (RQ1; See Figure 1a). Models control for race/ethnicity as well as the aforementioned set of covariates. In the mediation model, the a_1 pathway is indicative of the association between parental warmth and reading achievement. The a_2 pathway is the association between parental stress and reading achievement. The *b* pathway is the association between ATL and reading achievement. Lastly, the c_1' *and* c_2' pathways pertain to the direct association between parental warmth and stress and reading.

Model 2. We then tested RQ2, the extent to which race/ethnicity moderated the mediation model described in model 1 (See Figure 1b). To do so, we tested for moderation of the *a* and *c*' pathways by including interaction terms for parental warmth X race/ethnicity and parental stress X race/ethnicity when predicting ATL (mediation model) and when predicting reading achievement (direct effect). In testing moderation of the direct effect, we examined the significance of the interaction term. Following Hayes' (2019) framework for conditional process analysis, we calculated conditional indirect effects for each racial/ethnic group and generated bootstrapped standard errors running 1000 iterations. In probing the interaction, we tested for significant differences between conditional indirect effects for each pairing of racial/ethnic groups (White and Black, White and Hispanic, White and Asian, Black and Hispanic, Black and Asian, and Hispanic and Asian).

Missing data. For the children in the dataset, 29.5% of the observations were missing on the parental warmth variable composite, 29.9% of observations were missing on the parental stress composite, and 16.6% of observations were missing for first grade reading scores. The race indicators for Black and Hispanic also significantly predicted missingness in the outcome. However, none of the key predictor variables significantly predicted missingness in the outcome variable. We used full information maximum likelihood methods to account for missing data, in addition to including auxiliary variables in the model that significantly predicted missingness in reading scores in spring of first grade, such as: below poverty threshold, at or above 200 percent of poverty threshold, highest parental education above high school but no college, highest parental education completed college or above, English as home language, foreign born parent status, and previous reading achievement (Collins, Schafer, & Kam, 2001; Enders, 2010). FIML procedures rely on available observations for estimation of parameters of the data, ultimately generating less biased and more precise parameter estimates under the assumption of Missing at Random (Enders & Bandalos, 2001).

Descriptive Analysis

See Tables 1 and 2 for descriptive statistics on key variables included in the analytical model both for the overall sample and by child race/ethnicity, and see the appendix for bivariate correlations by race/ethnicity. Overall, reading achievement was normally distributed, increasing from 61.19 (*SD* = 13.53) in spring of kindergarten to 84.05 (*SD* = 15.59) in spring of first grade. Scores on parental warmth for the overall sample were high on average (Overall: *M* = 15.03, *SD* = 1.45; 4-16), and parental stress scores were low on average (Overall: *M* = 1.95, *SD* = .63; 1-4). See Table 1 for pairwise

comparisons between racial/ethnic groups of parental warmth and stress. There were significant differences between average parental warmth scores of Black children compared to White children, Hispanic children compared to White children, Asian children compared to White children, Hispanic children compared to Black children, and Asian children compared to Black children, but not between Asian children and Hispanic children. Differences in average parental stress scores were significant between Hispanic compared to White children, Asian children compared to White children, Asian children compared to Black children, and Asian children compared to Hispanic children, but not for Black children compared to White children or Hispanic children compared to Black children.

Model 1: Mediating Role of ATL in Association of Parental Factors to Reading

Model 1.1 tested the direct association between parental warmth and stress and reading achievement, and Model 1.2 tested the indirect effect mediated by ATL (RQ1).

Direct effect: Association between parental warmth and stress and reading. In addressing our first research question, we assessed the direct association between parental warmth and stress in spring of kindergarten and reading achievement in spring of first grade in Model 1.1. The pathway coefficients demonstrate standardized beta coefficients and p-values. Controlling for race/ethnicity as well as covariates, the association between parental warmth and reading achievement in spring of first grade was not significant (β = .01, p = n.s.). Controlling for race/ethnicity as well as covariates, only parental stress in spring of kindergarten was significantly and negatively associated with reading achievement in the spring of first grade (β = -.02**,** p < .001), such that higher parental stress in kindergarten contributed to slightly lower first grade reading

achievement. Therefore, there was only a direct association between parental stress and reading achievement.

In testing other direct effect pathways, we found that parental warmth was positively associated with ATL (β = .17, p < .001). Parental stress was negatively associated with ATL (β = -.10, p < .001). Lastly, ATL was positively associated with reading (β = .07, p < .001).

In a separate model (1.2), we then assessed the association between parental warmth and stress and reading achievement when mediated by ATL (see Figure 2). While the addition of ATL as mediator did not change the direct association between parental warmth and reading achievement, the addition of ATL reduced the level of significance of the direct effect of parental stress on reading achievement (β = -.02 (rounded to two decimal places), p < .01).

Indirect effect. Conditional indirect effects reflect unstandardized beta coefficients and p-values. Examination of the indirect effects suggests that kindergarten parental warmth and stress are associated with first grade reading achievement through kindergarten ATL (see Figure 2). Greater parental warmth contributed to higher reading achievement through higher ATL behavior in kindergarten ($B_{indirectW}$ = .13, p < .001; CI = .10 - .16). Greater parental stress contributed to lower levels of reading achievement through lower ATL competence ($B_{indirectS}$ = -.16, p < .001; CI = -.21 - -.12). Thus, ATL mediated the association between both parental warmth and stress and reading achievement.

Model 2: Conditional Process Analysis

To answer whether race/ethnicity moderated the mediation model (RQ2), we implemented conditional process analysis to test for moderation of the pathways involving parenting mechanisms (See Figure 1b). Therefore, we tested for moderation of the direct effect and the indirect effect in the same model.

Moderation of direct effect. Model 2 revealed that race/ethnicity did not moderate the direct association between kindergarten parental warmth and stress and first grade reading achievement.

Moderation of indirect effect. Though there was slight variation by race/ethnicity in the conditional indirect effect of kindergarten parental warmth on first grade reading achievement through kindergarten ATL, the differences in the conditional indirect effect between racial ethnic groups were insignificant. Therefore, we found that race/ethnicity did not moderate the effect of the indirect association between parental warmth and stress and reading achievement thought ATL (Black: $B_{indirectW}$ = .135, p < .001 ; CI = .082 - .188; White: $B_{indirectW}$ = .133, p < .001; CI = .102 - .164; Hispanic: $B_{indirectW}$ = .126, p < .001; CI = .093 - .158; Asian: $B_{indirectW}$ = .110, p < .001; CI = .057 - .163; See Figure 3).

Though there was some variation by race/ethnicity in the conditional indirect effect of parental stress on reading through ATL, between group differences were also insignificant (Asian: $B_{indirectS}$ = -.226, p < .001; CI = -.342 - -.110; Hispanic: $B_{indirectS}$ = -.188, p < .001; CI = -.257 - -.118; White: $B_{indirectS}$ = -.153, p < .001; CI = -.202 - -.104; Black: $B_{indirectS}$ = -.110, p = .01; CI = -.196 - -.023).

Findings ultimately revealed that the direction of the indirect effects for parental warmth (positive) and stress (negative) were the same across race/ethnicity for White,

Black, Hispanic, and Asian Children. There were small, yet not statistically significant variations in the magnitude of the indirect effect by race/ethnicity.

Discussion

The aim of our study was to examine whether ATL was a mechanism through which parental warmth and stress influenced reading achievement. Furthermore, we wished to investigate the degree to which race/ethnicity moderated the mediation of warmth and stress on reading through ATL. Findings revealed support for one of the major hypotheses. We found evidence that the association between parental warmth and stress and reading achievement was mediated by ATL. Yet when testing whether race/ethnicity moderated the mediation, there was no evidence of moderated mediation by race/ethnicity. Therefore, parental warmth, a parenting construct theorized as important for social emotional skills and academic development (Karreman et al., 2006; Nordling et al., 2016) appears to contribute to reading achievement through having a protective influence on ATL skills. On the other hand, parental stress is a parenting construct that was theorized as a risk factor for social emotional skills and academic development (Conger at al., 2002), and in fact seems to be detrimental to reading achievement by exerting a harmful influence on ATL. Given that race/ethnicity did not moderate these associations, our findings reinforce the importance of ATL as a potential target for intervention when children's relationships and interactions with parents are characterized by parental warmth and stress. It is possible that the null moderated mediation findings pertain to the generalized parenting constructs in the current study that may not reflect culturally specific dimensions of parenting. In this case, findings

highlight the importance of research that examines culturally specific parenting practices that are related to children's social emotional skills.

ATL as Mediator of Parental Warmth and Stress and Reading Achievement

We examined the direct association between parental factors, such as parental warmth and stress in kindergarten and reading achievement in first grade. In contrast to the previous literature (Merlo et al., 2007; Shelleby & Ogg, 2019), parental warmth was not a significant predictor of reading achievement. However, parental stress was negatively associated with reading achievement, even after controlling for covariates such as home environment. The significant finding for parental stress builds on literature indicating that parental stress coincided with parents placing less value on reading competence (Respler-Herman et al., 2012). Notably, the direct associations between parenting factors and reading were both small and similar in magnitude, indicating that neither of the parenting factors were strong inputs to reading in general.

One of our primary aims was to examine whether kindergarten ATL functioned as a mediator between kindergarten parental warmth and stress and first grade reading achievement. Indeed, we find that ATL mediated the longitudinal association between both parenting factors and reading achievement. Considering these patterns of direct and indirect effects, we suggest that the absence of a direct effect between parental warmth and reading achievement may be related to the importance of ATL as a mediator. Our findings indicate that parental warmth was a significant predictor of ATL. It may be that parental warmth supports reading achievement in early childhood primarily through other mechanisms such as social emotional skills (Gurdal et al., 2016). Given that there was an indirect effect of warmth despite there being no direct effect of parental warmth, it is

possible that an additional variable apart from ATL is driving the longitudinal association between parental warmth and reading. It could be that parental warmth is implemented as part of an authoritative parenting style (Grolnick & Ryan, 1989; Shen et al., 2018), meaning that a combination of warmth and control is supporting elementary reading achievement via social emotional skills.

As expected from prior evidence (Conger at al., 2002; Oxford & Lee, 2011), parental stress was negatively associated with reading, an association that was mediated by ATL. Parental stress may deprive the child of opportunities for rich parent child interactions that would support the development of both ATL and reading achievement. Previous evidence points to ATL as relevant predictors of reading achievement (Li-Grining et al., 2010). Our findings add to this body of work by demonstrating the importance of parental warmth and stress for supporting ATL upon starting elementary school. Parental warmth may boost ATL and allow the child to learn and thrive in the home and the classroom, which eventually translates to higher reading achievement in first grade, while parental stress may contribute to the destabilization of this system.

Conditional Process Analysis: Does the Mediation Model Vary by Race/Ethnicity?

Our second aim was to examine whether ATL functioned similarly as a mediator of parental warmth and stress and reading achievement across Asian, Black, Hispanic, and White children and families. In contrast to prior evidence of racial/ethnic variation in the association between parental warmth and children's reading achievement (Bae et al., 2014), we found no evidence of racial/ethnic moderation for the direct association between parental warmth and stress and children's reading achievement. Hence, our findings indicate that parental warmth and stress function similarly across Asian, Black,

Hispanic, and White children and families. Contrary to hypotheses that the association between warmth and stress and ATL would be moderated by race/ethnicity, we found that race/ethnicity did not moderate these pathways. We speculate that these null patterns may point to a lack of cultural specificity in the parental warmth and stress measures available in the ECLS-K. In other words, the source of variation by race/ethnicity may be in more nuanced expressions of parental warmth or experiences of parental stress. Moreover, there may be variation in parental warmth and stress within a racial/ethnic group based on contextual factors (Harris & Graham, 2014; Hou et al., 2016), cultural orientation (Chen et al., 2015), or ethnic subgroup that remains to be explored, as much of the previous literature on warmth and stress in racial/ethnic minority families were conducted primarily in one ethnic subgroup (Cheah et al., 2009; Chen et al., 2015; Hou et al., 2016; Lugo-Candelas et al., 2015).

The indirect effect of parental warmth on reading achievement through ATL was positive across race/ethnicity. This suggests that warm interactions seemed to facilitate ATL behaviors, which increased children's success in first grade reading. Despite descriptive differences in magnitude between racial/ethnic groups, differences in indirect effects were not statistically significant. Importantly, there were significant mean differences in parental warmth between Black and White, Hispanic and White, Asian and White, Hispanic and Black, and Asian and Black parents, suggesting some variation in the degree to which racial/ethnic minority families leverage parental warmth. The indirect effect of parental warmth on reading through ATL was highest for Black children. Our findings reiterate that parental warmth is integral to Black children's reading achievement (Bae et al., 2014; Barbarin & Jean-Baptiste, 2013), seemingly because warmth benefits

Black children's social emotional skills (Bae et al., 2014; LeCuyer & Swanson, 2017). It may be that parental warmth encourages Black children to practice social emotional behaviors that allow them to thrive in mainstream classrooms largely taught by White teachers. As captured in the measure for the current study, parental warmth was also relevant for the development of Asian children's social emotional skills, though the indirect effect of ATL was descriptively lowest for Asian families. Findings are consistent with previous research highlighting the adaptive role of positive emotional expressivity and authoritative parenting for emotional and cognitive regulation in Chinese American immigrant families (Cheah et al., 2009; Chen et al., 2015). Further research should consider parental warmth measures more consistent with Asian cultural values of training (Chao, 1994; Mistry et al., 2016). Training may be an alternative expression of caring in which the focus is on the child's work ethic and discipline, particularly in promotion of academic success (Chao, 1994; Mistry et al., 2016). Therefore, training may have implications for reading achievement through support of social emotional skills.

Similar to parental warmth, the indirect effect of parental stress on reading achievement through ATL was negative across race/ethnicity. This suggest that parental stress limits opportunities for cultivating ATL, which may have negative implications for children's first grade reading achievement. Though there were descriptive contrasts between racial/ethnic groups in magnitude of the indirect effect, contrasts in the indirect effect were not statistically significant. Given the significant mean differences in parental stress between Hispanic and White, Asian and White, Asian and Black, and Asian and Hispanic parents, there may be variation in the degree to which racial/ethnic minority families experience parental stress. When examining descriptive differences, the indirect

effect of parental stress on reading through ATL was highest for Asian American children. Asian children in the current sample came from families with relatively higher socioeconomic status and higher levels of parental education. At the same time, a much higher percentage of Asian children came from families with both foreign born parents and families who spoke a language other than English at home, suggesting that children would be in a process of acculturating and maneuvering multiple cultures. Therefore, it could be that the parental stress items are capturing stress on the parent child relationship that are attributed to sources other than economic hardship (Hou et al., 2016). In contrast, the indirect effect of ATL was descriptively lowest for Black children. Black families may demonstrate a resilience to parental stress such that the detrimental impact on academic achievement through social emotional skills is attenuated (Harris & Graham, 2014). Though exposure to chronic stress has long-term negative implications that span from social emotional development to major health issues (Lupien et al., 2018), Black families may develop resilient parenting strategies to adapt in the face of persistent stress, such as parental control (Harris & Graham, 2014). Therefore, the threat of parental stress for development may be minimized as a result of implementing parenting strategies that may be maladaptive in the context of stability but are adaptive in the context of stress. Further work should investigate the specific role of Black parents promoting resilience in adverse environments (Harris & Graham, 2014; LeCuyer & Swanson, 2017; LeCuyer & Zhang, 2015). Therefore, social emotional interventions may more effectively target ATL if they are sensitive to ethnic minority parents' approaches to leveraging parental warmth and addressing parental stress in parent-child interactions.

Limitations and Future Directions

We make a unique contribution to the literature by examining ATL as a mediator of parental warmth and stress and reading achievement, as well as by examining moderated mediation by race/ethnicity. However, there are several limitations to consider. The current study advances on previous work that examines associations between parenting, social emotional skills, and reading achievement constructs by investigating and finding evidence for the mediating role of social emotional skills. However, mediation is not equivalent to causation, so causal inferences cannot be made. Additionally, parental warmth and stress were only measured based on select questionnaire responses in a nationally representative dataset, meaning that culturally specific constructs of parenting were not used in the study. Future work on parenting and social emotional skills should include more comprehensive parenting measures that reflect the cultural diversity of the sample, which could consist of observational measures of parental warmth and stress.

Additionally, differences in the significant roles of parental warmth, stress, and ATL behaviors may also be due to variation in the self-regulatory competencies that certain ethnic groups prioritize. Thus, future work that addresses culturally specific constructs of parenting should occur in tandem with research on social emotional development of Black, Hispanic, and Asian children, in order to develop culturally specific constructs of social emotional skills in the unique context of the United States. Social emotional constructs of interest for Hispanic populations might be consistent with values of cooperation and family (Contreras et al., 2012). In Asian American families, children may be socialized to self-regulate with the goal of maintaining communal honor and well-being and performing academically (Chen & Rubin, 2011). For Black children,

constructs of social emotional skills may be focused on socialization of racial identity, religious beliefs, and standards of moral development (Harris & Graham, 2014). Consideration should also be given to social emotional skills that have communal applications and are employed in interpersonal interactions amongst family members (Li-Grining, 2012; Mistry et al., 2016). Lastly, as an initial investigation of the influence of parenting on academic achievement through ATL, we used measures of parenting and ATL in the spring of kindergarten and reading achievement in the spring of first grade. Further research might consider whether parental warmth and stress contribute to growth trajectories of reading achievement through ATL.

Conclusion

In the current study, we investigated the potential for ATL, a set of social emotional competencies, to mediate the association between parental warmth and stress and reading achievement. In an effort to advance current understanding of racial/ethnic variation in parental socialization of social emotional skills for reading achievement, we were also interested in testing for moderated mediation by race/ethnicity. We find that in fact, ATL do mediate the association such that parental warmth functions as a benefit for reading achievement through supporting ATL, and parental stress functions as a detriment to reading through hindering ATL. Moreover, we find evidence that the positive role of parental warmth and the negative role of stress in contributing to children's achievement through ATL might be similar across race/ethnicity. For interventions targeting children's development of social emotional skills for success in critical academic domains such as reading, parental warmth and should be heeded as catalyst and stress as an inhibitor of developmental processes. Yet in alignment with

these considerations, research and interventions on parenting must include the diverse voices of ethnic minority parents and families, with specific regard for their cultural values around social emotional skills and their experiences of parental warmth and stress.

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Table 1
Correlation matrix and descriptive statistics for continuous key variables

	Parental warmth	Parental stress	Home environment	ATL	Reading (Spring K)	Reading (Spring 1st)
Parental warmth	1					
Parental stress	-0.11***	1				
Home environment	0.21***	-0.09***	1			
ATL	0.25***	-0.15***	0.30***	1		
Reading (Spring K)	0.02*	-0.03***	0.07***	0.22***	1	
Reading (Spring 1st)	0.03***	-0.05***	0.07***	0.24***	0.79***	1
Overall *M(SD)*	15.03(1.45)	1.95(.63)	26.17(4.28)	3.13(.49)	61.19(13.53)	84.04(15.59)
White *M(SD)*	15.09(1.32)	1.92(.61)	26.73(3.93)	3.18(.45)	63.44(12.77)	87.22(14.70)
Black *M(SD)*	15.25(1.39)	1.95(.66)	26.30(4.40)	3.14(.51)	58.14(12.81)	79.86(15.29)
Hispanic *M(SD)*	14.88(1.65)	1.96(.64)	25.27(4.62)	3.03(.53)	56.83(12.79)	78.57(15.65)
Asian *M(SD)*	14.81(1.59)	2.07(.64)	24.67(4.52)	3.03(.53)	66.51(15.95)	89.31(14.13)

Comparison	Parental warmth			Parental stress		
	Contrast	*S.E.*	*t*	Contrast	*S.E.*	*t*
Black vs. White	.16	.04	3.68***	.02	.02	1.30
Hisp vs. White	-.21	.03	-6.74***	.04	.01	2.60*
Asian vs. White	-.28	.05	-5.93***	.15	.02	7.07***
Hisp vs. Black	-.37	.05	-7.96***	.01	.02	.59
Asian vs. Black	-.44	.06	-7.49***	.12	.03	4.86***
Asian vs. Hisp	-.07	.05	-1.36	.11	.02	4.98***

Notes. Data source: ECLS-K: 2011 Kindergarten-Second Grade restricted-use data from the National Center for Education Statistics
*$p \leq .05$, **$p \leq .01$, ***$p \leq .001$

1 Correlation matrix and descriptive statistics for continuous key variables

Table 1.1
Correlation matrix and descriptive statistics for continuous key variables in White families

	Parental warmth		Parental stress		Home environment		ATL		Reading (Spring K)		Reading (Spring 1st)
Parental warmth	1.00										
Parental stress	-0.12	***	1.00								
Home environment	0.21	***	-0.08	***	1.00						
AtL	0.23	***	-0.14	***	0.27	***	1.00				
Reading (Spring K)	0.00		-0.02		0.03	*	0.19	***	1.00		
Reading (Spring 1st)	0.00		-0.03	*	0.02		0.21	***	0.77	***	1.00

Notes. Data source: ECLS-K: 2011 Kindergarten-Second Grade restricted-use data from the National Center for Education Statistics
*$p \leq .05$, **$p \leq .01$, ***$p \leq .001$

2 Correlation matrix and descriptive statistics for continuous key variables in White families

Table 1.2
Correlation matrix and descriptive statistics for continuous key variables in Black families

	Parental warmth		Parental stress		Home environment		ATL		Reading (Spring K)		Reading (Spring 1st)
Parental warmth	1.00										
Parental stress	-0.08	**	1.00								
Home environment	0.14	***	-0.08	**	1.00						
AtL	0.21	***	-0.12	***	0.24	***	1.00				
Reading (Spring K)	0.03		-0.10	***	0.03		0.23	***	1.00		
Reading (Spring 1st)	0.02		-0.08	**	0.02		0.22	***	0.78	***	1.00

Notes. Data source: ECLS-K: 2011 Kindergarten-Second Grade restricted-use data from the National Center for Education Statistics
*$p \leq .05$, **$p \leq .01$, ***$p \leq .001$

3 Correlation matrix and descriptive statistics for continuous key variables in Black families

Table 1.3
Correlation matrix and descriptive statistics for continuous key variables in Hispanic families

	Parental warmth		Parental stress		Home environment		ATL		Reading (Spring K)		Reading (Spring 1st)
Parental warmth	1.00										
Parental stress	-0.10	***	1.00								
Home environment	0.20	***	-0.11	***	1.00						
AtL	0.27	***	-0.16	***	0.32	***	1.00				
Reading (Spring K)	0.07	***	-0.04	*	0.12	***	0.23	***	1.00		
Reading (Spring 1st)	0.08	***	-0.07	***	0.10	***	0.27	***	0.78	***	1.00

Notes. Data source: ECLS-K: 2011 Kindergarten-Second Grade restricted-use data from the National Center for Education Statistics
*$p \leq .05$, **$p \leq .01$, ***$p \leq .001$

4 Correlation matrix and descriptive statistics for continuous key variables in Hispanic families

Table 1.4
Correlation matrix and descriptive statistics for continuous key variables in Asian families

	Parental warmth		Parental stress		Home environment		ATL		Reading (Spring K)		Reading (Spring 1st)
Parental warmth	1.00										
Parental stress	-0.06		1.00								
Home environment	0.23	***	-0.06		1.00						
AtL	0.20	***	-0.17	***	0.31	***	1.00				
Reading (Spring K)	-0.01		-0.05		0.14	***	0.22	***	1.00		
Reading (Spring 1st)	0.02		-0.09	**	0.18	***	0.23	***	0.80	***	1.00

Notes. Data source: ECLS-K: 2011 Kindergarten-Second Grade restricted-use data from the National Center for Education Statistics
*$p \leq .05$, **$p \leq .01$, ***$p \leq .001$

5 Correlation matrix and descriptive statistics for continuous key variables in Asian families

Table 2
Family demographics by child race/ethnicity

	White	Black	Hispanic	Asian
n = 17,020	%	%	%	%
Below poverty threshold	12.8	45.2	46.2	18.0
At or above poverty threshold below 200 percent	19.5	26.8	26.3	19.9
At or above 200 percent of poverty threshold	67.7	27.9	27.5	62.1
Highest parental education: less than high school degree	8.5	16.8	46.9	14.9
Highest parental education: above high school but no college	61.2	69.2	45.2	38.3
Highest parental education completed college or above	30.3	14.0	7.9	46.8
Both foreign born parents	1.8	8.8	62.2	91.4
Home language (1=English)	97.7	95.8	49.2	37.8
Has at least one older sibling	57.7	62.6	61.8	51.9

Notes. Data source: ECLS-K: 2011 Kindergarten-Second Grade restricted-use data from the National Center for Education Statistics (NCES). All sample sizes are rounded to the nearest ten in order to comply with the ECLS-K:2011 restricted use data license agreement with the NCES. Percentages are also rounded to the nearest tenth and may not sum to 100 percent. The variables At or above 200 percent of poverty threshold and Highest parental education: completed college or above were identified as reference groups and omitted from analyses.

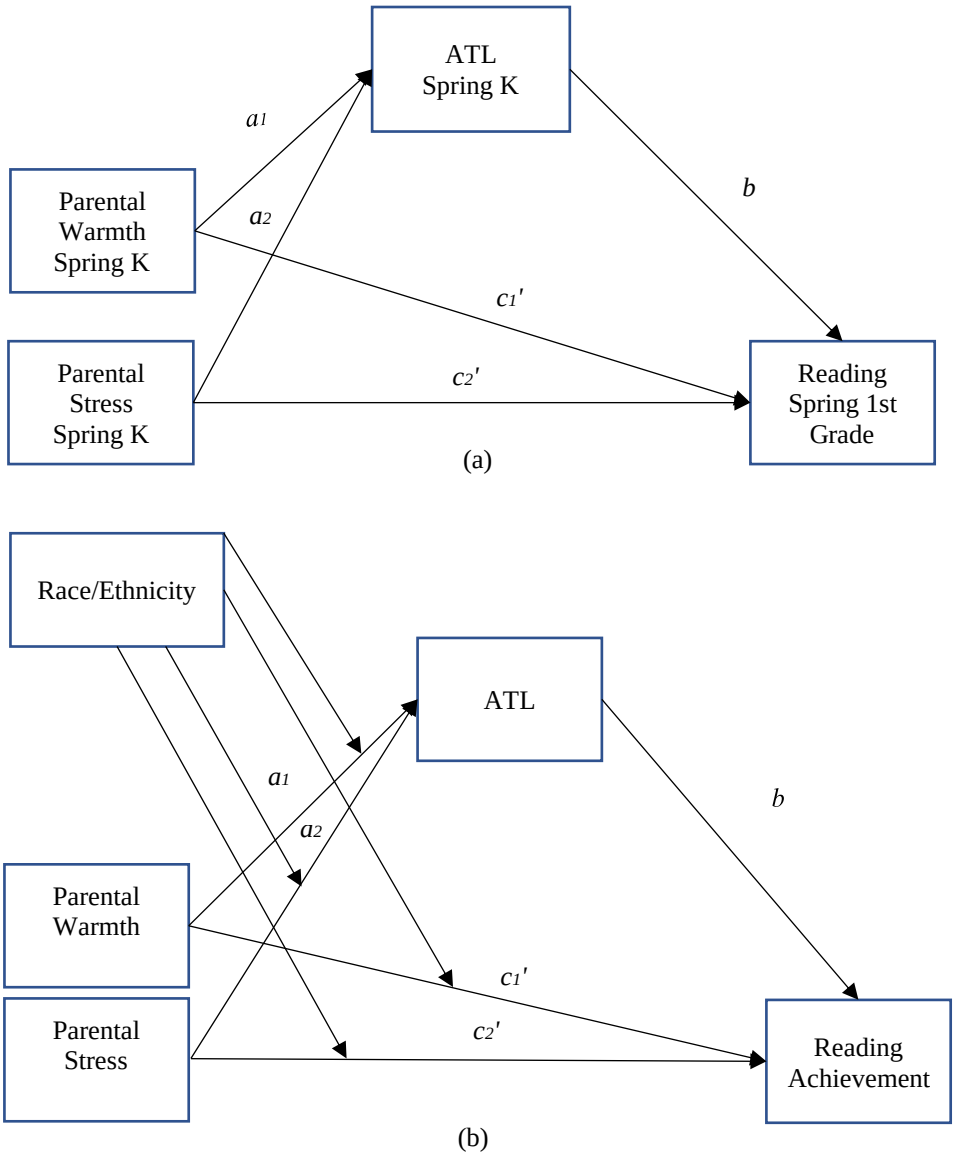

Figure 1. (a) Model 1: ATL mediate association of parenting inputs and reading achievement (b) Model 2: Child race/ethnicity moderates a and c' pathways of mediation model. Data source: ECLS-K: 2011 Kindergarten-Second Grade restricted-use data from the National Center for Education Statistics

1 Conceptual Models 1 and 2

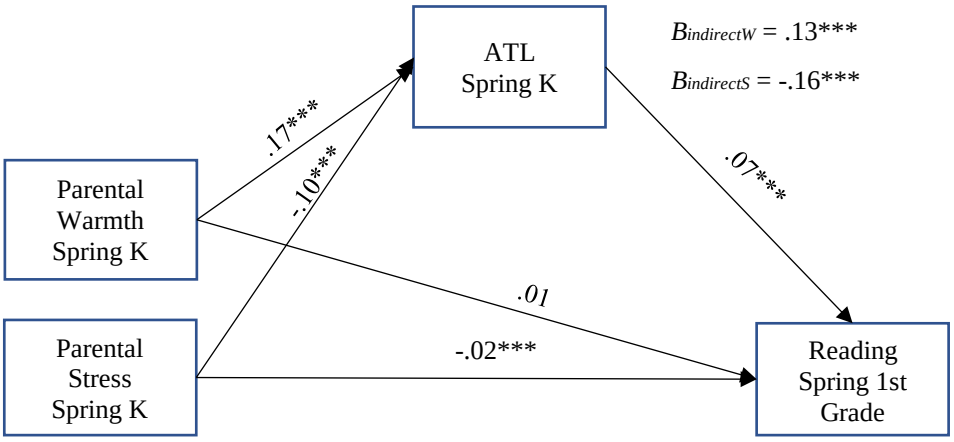

Figure 2. Model 1: Mediation of association between parenting inputs and reading achievement through ATL, controlling for race/ethnicity and set of covariates (RQ1). Indirect effect coefficients are unstandardized, and direct effect coefficients are standardized. Data source: ECLS-K: 2011 Kindergarten-Second Grade restricted-use data from the National Center for Education Statistics

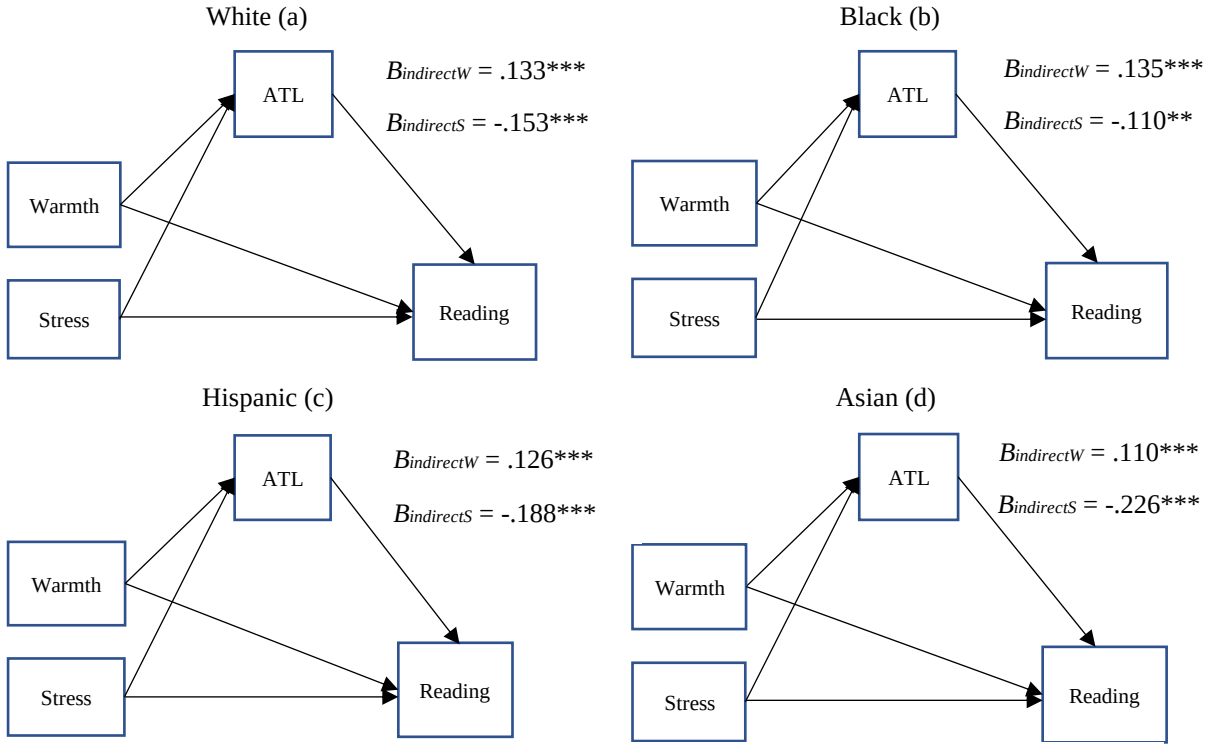

Figure 3. Model 2: Moderated mediation results (RQ2) for White (a) Black (b) Hispanic (c) and Asian (d) families, controlling for covariates. Data source: ECLS-K: 2011 Kindergarten-Second Grade restricted-use data from the National Center for Education Statistics

2 Model 1 and 2 Results

Appendix

Variable composite included as covariate	Items (National Center for Education Statistics, 2012, Fall)
Home environment quality • Fall Parent Interview • Sum across items • Question: "In at typical week, how often do you or any other family members do the following things with {CHILD}? • Response options: (1) Not at all (2) Once or twice a week (3) 3 to 6 times a week (4) Everyday (Not ascertained, don't know, refused, and not at all coded as missing)	• Tell stories to {CHILD} • Sing songs with {CHILD} • Help {CHILD} do arts and crafts • Involve {CHILD} in household chores, like cooking, cleaning, setting the table, or caring for pets • Play games or do puzzles with {CHILD} • Talk about nature or do science projects with {CHILD} • Build something or play with construction toys with {CHILD} • Play a sport or exercise together • Practice reading, writing, or working with numbers

Manuscript 2: Latinx Siblings' Social Emotional Support During Shared Reading

Tatiana Yasmeen Hill, Natalia Palacios, Melissa Lucas, Stephanie Dugan, Amanda Kibler, and Judy Paulick

(Shorter version published in *Handbook of Research on Advancing Language Equity Practices within Immigrant Communities*)

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Abstract

In order to identify culturally adaptive approaches to socialization of school readiness skills involving siblings in Latinx families (Killoren et al., 2015; Meléndez, 2005; McLoyd & Steinberg, 1998; Raeff et al., 2000), researchers investigated: *How do Latinx older siblings interact with younger siblings in the context of shared reading to support social emotional skills?* in three Latinx immigrant families. Analyses revealed that older siblings demonstrated socialization practices such as using commands or questions and using social cues, which appeared to foster focal children's engagement. Older siblings also modeled connecting to prior knowledge, problem solving, negotiation of roles, and asking for and providing help, which seemed to enable children's autonomous social participation. Importantly, practices co-occurred with warm and responsive interaction styles. Findings inform how Latinx immigrant families socialize social emotional skills to accomplish early literacy tasks using practices that may be culturally specific and aligned with parental socialization.

Parents foster children's social emotional skills by leveraging warmth and responsiveness (Baumrind, 1971; Bronson, 2000; Grolnick & Ryan, 1989; Karreman et al., 2006). The research base on social emotional development primarily emphasizes parent-child interactions and their implications for development, failing to fully acknowledge developmental supports spurring from interactions with other family members. Yet younger children form unique relationships with older siblings, who possess knowledge and skills relevant for younger children's social emotional development (Buhrmester & Furman, 1990; Howe et al., 2006; Brownell & Carriger, 1998; Hartup, 1989). Moreover, older siblings are acclimated to academic environments, enabling older siblings to have interactions with younger children that could cultivate social emotional skills in service of academic demands (Hurtado-Ortiz & Gauvain, 2007). When considering ethnic minority families' approaches to socialization of social emotional skills that are adaptive to culture and context, Latinx families may rely on supports from non-parental family members such as siblings for development of social emotional competencies (Alfaro & Umaña-Taylor, 2010; Coll et al., 1996).

Social emotional skills are comprised of three main processes: cognitive regulation, emotional processes, and social and interpersonal skills (Jones & Doolittle, 2017). The authors focus specifically on social and interpersonal skills, consisting of following social rules and expectations, evaluating the behavior of others, and cooperating and problem solving with others for rich social interactions (Jones & Doolittle, 2017). As indicated by Bronson (2000), children can "reflect on their own and others' behaviors and the consequences of these behaviors in the environment" (p. 227). This requires children to evaluate their own and others' behavior and engage in

perspective-taking, as they begin developing an independent set of standards that guide behavior, particularly in the context of cooperative learning and joint problem solving (Bronson, 2000). Social emotional skills promote school readiness by contributing to children's elementary school reading achievement (Brackett et al., 2012).

Shared book reading between parent and child, or in this case between older siblings and younger children, is a form of social interaction that can provide structured opportunities for building social emotional skills, such as engaging with reading a story and experimenting with novel literacy tasks (Aram & Aviram, 2009; Bus, 2003; Doyle & Bramwell, 2006). Given the importance of older siblings in Latinx families in supporting the social emotional development of their younger siblings, and the evidence of shared reading as a social context demanding social emotional skills, the authors examine the processes through which older siblings support social emotional skills during reading interactions in Latinx immigrant families. Using ethnographic observations of three Latinx immigrant case families engaging with books in English and Spanish, the authors ask the research question: *How do Latinx older siblings from three case families interact with younger siblings in the context of shared reading to support social emotional skills?*

To contextualize the current study, the authors lay the theoretical foundation for sociocultural construction of social emotional skills, specifically highlighting (1) the role of older siblings in supporting younger children's social emotional skills, and (2) shared reading as a social context for older siblings to socialize focal children's social emotional skills. The authors then demonstrate how in Latinx immigrant families, older sibling socialization of social emotional skills may be grounded in cultural value systems. In

addressing the extant theory and literature, the authors establish the need to improve understanding of how Latinx older siblings socialize social emotional skills.

Social Emotional Skills as Socioculturally Constructed

Social emotional skills are socially and culturally constructed. As part of social construction, development of competencies occurs in the process of direct interactions between the individual child and socializing agents with more advanced knowledge and sophistication of competencies (Vygotsky, 1978). Parent-child interactions are often conceptualized as the primary social context for making inputs to socializing social emotional skills. Consequently, there is limited literature on other social contexts such as interactions with *siblings* and their importance for socializing social emotional skills. Therefore, the authors rely on understanding of parent-child interaction styles to inform older siblings' approaches to socialization. Parent-child interaction styles that support social emotional skills feature warmth and responsiveness (Baumrind, 1971; Bronson, 2000; Calkins et al., 1998; Davidov & Grusec, 2006; Karreman et al., 2006; Kuczynski & Kochanska, 1995). Parental warmth manifests as positive affect combined with encouragement of children's behavior to make interactions with the child pleasurable and engaging (Davidov & Grusec, 2006). Warmth is conceptualized as instilling the child's desire to manage behavior as a means of furthering an interaction that is fulfilling for the child (Laible et al., 2015; von Suchodoletz et al., 2011). Parental responsiveness may be exhibited as the scaffolds supplied to regulate the child's behavior such as establishing expectations and demands for maintaining appropriate behavior and monitoring and correcting the child's behavior with feedback (Baumrind, 1971; Bronson, 2000; Calkins et al., 1998; Kuczynski & Kochanska, 1995). Importantly, parental responsiveness

addresses the developmental needs of the child in order to advance them to execute tasks such as regulation with autonomy (Baumrind, 1971; Bronson, 2000; Darling & Steinberg, 1993; Grolnick & Ryan, 1989). Though parents are often theorized as supporting children in their advancement from being externally regulated to internalizing social emotional skills, interactions with other family members such as older siblings are also a context for socialization of social emotional skills.

Social emotional development is also culturally constructed, as cultural value systems drive families' approaches to caregiving and education, including goals for developing children's social emotional competencies (Chen & Rubin, 2011; Meléndez, 2005; Trommsdorff, 2009; Trommsdorff & Cole, 2011). Given that socialization practices for children's social emotional development have been identified empirically according to dominant White culture (Karreman et al., 2006; Meléndez, 2005), the established socialization practices described in research may not translate to the sociocultural context of ethnic minority families in which social emotional skills are constructed. It is important to develop within-group understanding of practices for socializing social emotional skills that are uniquely adaptive for the sociocultural context of ethnic minority families, such as their culture, family roles, and contrasting languages and norms between home and school (Coll et al., 1996).

Older sibling interactions and social emotional skills. Older siblings may be recruited to take on caretaking and educational support roles in interacting with younger children (Dunn, 2015). In social interactions with children, older siblings may illustrate a tendency to serve as teachers (Howe & Recchia, 2009; White & Hughes, 2017). In sibling interactions, older siblings might leverage social roles and sibling relationships to

model practices for cultivating social emotional skills to meet academic demands (Bandura & Walters, 1977). Collaboration between older and younger siblings is also an important social emotional activity that older siblings are likely to initiate in the context of a positive sibling relationship (Brownell & Carriger, 1998). Shared reading may serve as a platform for sibling collaboration and teaching of social emotional skills.

Shared reading as a social context. Shared reading between a novice reader and a reader with greater expertise and authority is necessarily an "interactional context" (Bus, 2003, p. 8; Vygotsky, 1978), making it a rich form of social interaction. Baker (2013) describes "shared reading as a didactic proximal process" (Baker, 2013, p. 185). Though typically studied during parent-child interactions (Baker, 2013), shared reading could be a setting for proximal interactions between older siblings and younger children.

Shared reading places demands on social emotional skills, such that social emotional and early literacy development seem to occur in parallel (Baker, 2013; Baker et al., 2012; Bus, 2003; Bus & van Ijzendoorn, 1995). In shared reading interactions, it is necessary to externally regulate the children's emotions and behavior and scaffold children in internalizing social expectations for shared reading. As part of shared reading practices such as asking questions and having discussions to create meaning from the text or storyline (Bus, 2003; Doyle & Bramwell, 2006; Palinscar & Brown, 1984), the child practices critical social emotional competencies, such as attentiveness, prosocial participation, and joint exploration of novel reading tasks (Bus, 2003; Bus & van Ijzendoorn, 1995). Given that shared reading is a social experience, younger children may also learn language needed for social emotional skills such as explaining emotions, thoughts, and behaviors (Bronson, 2000; Vygotsky, 1978). Shared book reading

interactions have been studied between parents and children with secure attachment, finding that interactions involved warmth and responsiveness (Aram & Aviram, 2009; Bus, 2003; Bus & van Ijzendoorn, 1995). However, it is important to apply understanding of shared reading to sibling relationships, considering older sibling interaction styles in supporting social emotional skills.

Sibling Interactions and Social Emotional Skills

Older siblings have been documented as contributing positively to children's social emotional competencies (Sang & Nelson, 2017), including social and interpersonal skills such as social understanding (Taumoepeau & Reese, 2014). When considering how older siblings socialize social emotional skills, they may leverage warmth and responsiveness (Buist et al., 2013; Dirks et al., 2015; Harper et al., 2016; Howe et al., 2001; Morgan et al., 2012; Recchia et al., 2009).

Older sibling warmth and social emotional skills. Research has identified developmental implications of sibling relationships based on levels of warmth and conflict, demonstrating that promoting warmth and minimizing conflict were adaptive for social emotional competencies (Dirks et al., 2015). Sibling warmth and affection have been associated with greater prosocial skills (Harper et al., 2016) and positive emotional understanding outcomes in focal children (Howe et al., 2001). Lower levels of sibling conflict and higher levels of sibling warmth contributed to minimizing both internalizing symptoms and externalizing symptoms (Buist et al., 2013; Morgan et al., 2012). Though sibling warmth has been established as playing a role in children's social and emotional behavior, the importance of sibling warmth for social emotional skills relevant for reading remains to be explored.

Older sibling responsiveness and social emotional skills. Older sibling responsiveness may manifest as teaching strategies targeted to the learner (Recchia et al., 2009). Learner-centered strategies are responsive to specific developmental needs of the focal child (Recchia et al., 2009), and could consist of monitoring progress and supplying corrections (Goodwin, 2017) as well as opportunities for sibling imitation (Howe et al., 2018). In the context of play, "older siblings explain the purpose of actions in play, while younger siblings add to the storyline" (Hughes et al., 2018, p. 97). Therefore, the older sibling provides information about the motivation for the task, which creates space for the child to creatively contribute to the plot. By incorporating social emotional supports into play, older siblings uniquely contribute informal opportunities for younger children to develop social emotional skills. Dynamics of authority and power between older and younger siblings are also critical for social emotional development, as they likely have implications for the level of sibling conflict and responsiveness. Older and younger siblings may negotiate roles in tasks such as shared reading, made possible through the older siblings' appraisal of the younger child's interests and needs and balancing of power dynamics (Brownell & Carriger, 1998; Buhrmester & Furman, 1990; Bus, 2003; Doyle & Bramwell, 2006). However, further research is needed to build understanding of older sibling use of responsiveness to promote social emotional competence during shared reading.

Therefore, older sibling-child interactions that are meaningful for children's social emotional skills in the context of reading are likely to be characterized by warmth (Buist et al., 2013; Dirks et al., 2015; Harper et al., 2016; Howe et al., 2001; Morgan et al., 2012) and responsiveness (Hughes et al., 2018; Recchia et al., 2009). In Latinx families,

approaches to socialization of developmental competencies may be driven by cultural value systems that vary from the dominant culture (Trommsdorff, 2009; Trommsdorff & Cole, 2011). Therefore, it is crucial to examine interactions within Latinx families in which family roles in developing social emotional skills are driven by Latinx cultural value systems.

Sibling Warmth and Responsiveness: Culturally Adaptive Interaction Styles

Though few studies of sibling interaction styles have been performed within Latinx families, previous work positions siblings as agents of socialization in Latinx families and linguistic minority families (Gregory, 1998; Rogoff, 1990; Saracho, 2007). Latinx families might place cultural value on siblings' involvement in educational and caretaking responsibilities (Killoren et al., 2015; Saracho, 2007). Latinx older siblings may be guided by values of familial responsibility and connection (*familismo*) to interact with children with warmth (Killoren et al., 2015). Furthermore, older sibling responsiveness may be aligned with Latinx cultural expectations to be *acomedido*, or cognizant of other family members' needs (López et al., 2012). Older siblings might also express expectations for social emotional competencies promoting the cultural value of respecting authority (*respeto*). Similarly, older siblings might encourage children to fulfill cultural expectations to be well-behaved in social situations (Calzada et al., 2010; Li-Grining, 2012; Pintar Breen et al., 2018).

Although there is increasing evidence of the role of Latinx siblings socializing their younger siblings academically (Alfaro & Umaña-Taylor, 2010; Williams & Gregory, 2001), limited research explores how Latinx older siblings support younger siblings' early social emotional development. In the context of reading in immigrant

home environments, Latinx older siblings may draw from multilingual repertoires to assist younger children in navigating multilingual contexts such as reading in the school language and the home language, or in transitioning between languages in discussing books (Soltero-González, 2009; Williams & Gregory, 2001). Given the importance of siblings among Latinx families as well as the adaptiveness of warmth and responsiveness in Latinx culture (Li-Grining, 2012; López et al., 2012), it is essential to investigate how Latinx older siblings leverage warmth and responsiveness to support younger sibling social emotional development in the context of reading interactions.

The Present Study

Research on socialization of social emotional skills relevant for reading is centered on parents (Aram & Aviram, 2009; Baumrind, 1971; Bronson, 2000; Bus, 2003; Bus & van Ijzendoorn, 1995; Calkins et al., 1998; Doyle & Bramwell, 2006; Karreman et al., 2006; Kuczynski & Kochanska, 1995; Palincsar & Brown, 1984), overlooking the role of older siblings in socializing younger children's social emotional skills in Latinx families (Killoren et al., 2015; Saracho, 2007). Studies of socialization highlight warmth and responsiveness as parent and sibling interaction styles (Dirks et al., 2015; Goodwin, 2017; Harper et al., 2016; Howe et al., 2001; Recchia et al., 2009), but fail to thoroughly address how Latinx older siblings may leverage similar practices for socializing younger children's social emotional skills in collaborative tasks such as shared reading. In order to explore older sibling supports for social emotional skills that are culturally relevant in Latinx families, it is necessary to conduct research within Latinx families. Taking a qualitative approach to analyzing older sibling interactions may illuminate processes through which Latinx older siblings implement practices for socializing social emotional

skills in shared reading interactions with younger children. In the current study, the authors implement a qualitative approach to identify processes through which Latinx older siblings cultivate social emotional skills in younger focal children in a naturalistic setting, referring to literature on socialization of social emotional behavior as a framework (Bronson, 2000). The authors focus on observations of focal children's interactions with family members around books in Spanish and English to investigate the following: *How do Latinx older siblings in three case families interact with younger siblings in the context of shared reading to support social emotional skills?*

Method

Data Collection

The families from the current case study were involved in a study on language and literacy environments in 87 Latinx immigrant families. Regionally, families were based in the South Atlantic United States in suburban/rural neighborhoods. Families were either Spanish-speakers or bilingual speakers of Spanish and English. In the region, there was an absence of educational infrastructure for bilingual, Spanish-speaking families, which was partially due to active barriers such as English-only policies (Kibler et al., 2016). Socioeconomically, families were disadvantaged on average (median income: $10,000-$19,000). The authors transcribed videos of six ethnographic observations with fifteen families consisting of structured play, free observation, and book time. For data analysis, the authors focused on book time sessions for which older siblings were present (nine families had older siblings). Thirty minutes were allotted for book time, during which observers either provided books in English (in visits 1, 3, and 5) or Spanish (in visits 2, 4, and 6) for families to interact with as they desired. Items consisted of books with a rhyme

scheme such as *Oso Pardo, oso pardo, ¿qué ves ahi?* in Spanish (Martin et al., 2002), and *Panda Bear, Panda Bear, What Do You See?* in English (Martin & Carle, 2006), alphabet books such as *Chica Chica Bum Bum ABC* in Spanish (Martin et al., 2000) and *A to Z* in English (Boynton, 1984), the wordless picture book, *The Lion and the Mouse* (Pinkney, 2009), and narrative picture books, *La Primera Luna Llena de Gatita* in Spanish (Henkes, 2006) and *Harold and the Purple Crayon* in English (Johnson, 1983). Focal children were identified for observations and were often accompanied by their mothers and older siblings.

Case Selection

The Flores, Hernández, and Lopez families were selected as the case families as part of an earlier project on transcultural literacy practices. Specifically, the three families demonstrated high frequencies of social practices of decoding in English and Spanish during shared reading (Kibler et al., in press). The current study was focused on the three case families in order to investigate Latinx older sibling supports for focal children's social emotional skills in the context of participating in literacy tasks during shared reading. Case families were of Honduran or Mexican origin. While Sras. Flores and Lopez had been in the United States for 12 or 13 years respectively, Sra. Hernández had been in the country for 7 years. Focal children in the case families were age 4 (in the Lopez family) or age 5 (in the Flores and Hernández families), and older siblings were either age 8 (in the Flores and Hernández families) or age 10 (in the Lopez family). There was variation in parents' reports of older siblings looking at or reading books with focal children in English and Spanish. While the Lopez family reported that such reading interactions never occurred, the Hernández family reported higher frequencies (Spanish:

once/month; English: 1 to 2 times/week), and the Flores family reported the highest frequencies (Spanish: 3-6 times/week; English: 3-6 times/week). When present during home observations, older siblings in the Flores and Lopez families entered reading interactions seemingly on their own volition or upon the mother's request. Therefore, older siblings read both one-on-one with the focal child and in a group with the mother. In the Hernández family, the older sibling always read with the focal child in the mother's presence.

Data Analysis

The authors took a theoretical thematic analysis (Braun & Clarke, 2006) approach to coding video transcript data for the case families. Theoretical thematic analysis entailed deductively coding excerpts from video transcripts based on an established theoretical framework for socialization of social emotional behaviors. The authors then analyzed the socialization practices for themes applying to interaction styles that co-occurred with socialization practices. Thematic analyses were motivated by the research question: *How do Latinx older siblings interact with younger siblings in the context of shared reading to support social emotional skills?* Given the limited theory on older sibling supports for social emotional skills and culturally specific, older sibling supports in Latinx families, it is necessary to evaluate the applications of conventional theory within Latinx families. Bronson's (2000) framework for early childhood social emotional development allows for consideration of supports for social emotional skills provided by caregivers and can serve as a foundational framework for considering whether supports occur in Latinx families. The authors used Bronson's (2000) definition of developmental milestones and role of adults in relation to children's social and emotional development

to code focal child and older sibling behaviors. The authors applied social emotional milestones as codes for older siblings' passive support and modeling of social emotional competencies for focal children. Bronson (2000) identified six milestones (See Bronson (2000), p. 218, Table 8.1) for preschool and kindergarten social emotional behaviors, of which the authors found evidence for three in the context of sibling social interactions. These skills include the capacity to (1) "control emotions, abide by rules, and refrain from forbidden behaviors", (2) engage in "cooperative interactions with peers" or siblings in this case, and (3) "learn more effective interaction strategies" (Bronson, 2000, p. 218). For milestone definitions, see Table 1.

Also, Bronson (2000) identified ten "roles of adult" (See Bronson (2000), p. 218, Table 8.1) that the authors used to code for older siblings' active enactment of expertise to focal children's social emotional competencies, of which the authors found evidence for one. Siblings "function as models, resources, and guides for social interactions styles and strategies" (Bronson, 2000, p. 218). For definitions, see Table 1.

In any instance within an excerpt in which an older sibling entered into a shared reading interaction, the authors applied milestone and role of adult codes. The authors initially coded the same transcript individually. The authors then reviewed codes for interrater agreement and coding discrepancies. When coding discrepancies occurred, the authors discussed discrepancies as a group until reaching consensus. The authors changed or refined codes inductively when necessary to capture emerging behaviors of older siblings and focal children. Additionally, the authors modified the codebook to reduce overlap across codes.

The authors then re-examined the coded excerpts to define the processes through which older sibling behavior supported younger siblings' social emotional competencies during shared reading within and across case families (See Table 1). From this examination of processes, the authors identified socialization practices used by Latinx older siblings to support focal children's social emotional skills. Importantly, practices co-occurred with interaction styles serving as the settings in which practices occurred. The authors further describe socialization practices and interaction styles with excerpts in the results section (See Table 1).

Results

In the context of shared reading interactions, the authors found that older siblings both modeled Bronson's (2000) social emotional milestones and enacted the role of adults. Milestones included "can learn more effective interaction strategies" and "capable of cooperative interactions" (Bronson, 2000, p. 218), which refer to older siblings' internalization and implementation of practices adaptive for social interaction (Bronson, 2000). The milestone, "more capable of controlling emotions, abiding by rules, and refraining from forbidden behaviors," (p. 218) refer to older siblings' regulation of one's own emotions and behaviors in response to prescribed social expectations. The role of adult of "function[ing] as models, resources, and guides for: social interactions styles and strategies" (p. 218) refers to older sibling scaffolds for following expectations and practices underlying social interaction. In the context of shared reading during book time, older siblings in the Hernández, Flores, and Lopez families engaged in socialization practices with focal children such as using commands or questions and social cues in support of focal children's engagement in shared reading (See Table 1). Older siblings

also demonstrated modeling how to connect to prior knowledge, sensitivity in problem solving, modeling negotiation of roles in the social practice of reading, and modeling asking for help/providing help, which appeared to facilitate focal children in participating with greater autonomy in shared reading (See Table 1).

These socialization practices co-occurred with either warm or responsive interaction styles (See Table 1). Warm interaction styles involved using a playful tone, physical and verbal affection, and praise and encouragement of focal children's participation in reading, exhibited by a smile or verbal affirmation. Older siblings and focal children often read in close physical proximity, in adjacent seats at the table or sharing a chair or sofa. Older siblings' warm interaction styles seemed to make interactions with focal children engaging and pleasurable, instilling focal children's willingness to fulfill social expectations as part of collectively engaging with family. The older sibling in the Lopez family, Ofelia, relied heavily on practices that co-occurred with warm interaction styles, and the older sibling in the Hernández family, Juliana, used more moderate levels of practices, while the older sibling in the Flores family, Fabiola, implemented fewer of these practices (See Table 2).

Responsive interaction styles involved receptiveness to the focal child's developmental needs, such that older siblings actively listened to focal children, monitored focal children's behavior, and scaffolded focal children's contributions by maintaining a balanced power dynamic and providing developmentally appropriate resources. Fabiola relied heavily on practices co-occurring with responsive interaction styles, and Juliana also interacted largely using such practices, while Ofelia implemented fewer practices (See Table 2).

In the following section, the authors describe how older sibling practices grounded in warm and responsive interaction styles seemed to socialize focal children's social emotional skills.

Socializing Engagement using Warm Interaction Styles

Using commands or questions. A warm interaction style allowed for playful and lighthearted reading interactions that invited participation. While implementing warm interaction styles, older siblings prompted focal children's engagement using commands or questions. Commands took the form of demands on the focal child to maintain attention and manage emotion while meeting the social expectations for participation in the task. Questions served to prompt behavior and direct attention.

In the Lopez family, Ofelia used commands and questions to harness the engagement of Alma, the focal child. Ofelia implemented repetitive verbal commands delivered in a soft tone such as "*mira* ['look']" as well as simple questions for Alma to identify pictures in order to redirect her attention to the text.

In the example below, the Lopez family is reading the wordless picture book, *The Lion and the Mouse* (Pinkney, 2009) in the second to last visit. Ofelia is sitting next to Alma at the kitchen table, and Alma has her elbows on the table facing Ofelia, which signals their closeness as part of the warm interaction style. Prior to the excerpt below, Ofelia commanded Alma to look at the pages and asked Alma to describe the pictures in a playful tone, to which Alma complied enthusiastically, occasionally laughing as she pointed out infant animals. This establishes a setting in which Alma is adequately supported to engage further by starting to describe the plot and inquire about events of the plot in *The Lion and the Mouse* (Pinkney, 2009).

1. Alma: ***se lo están llevando*** ((pointing to the page))
2. ('they are taking him [the lion]')
3. Ofelia: **uhuh.**
4. ((Ofelia turns page))
5. Alma: ***¿dónde se le van a llevar el león?***
6. ('where are they going to take the lion?')
7. Ofelia: **Uhuh.** ***o: mira.***
8. ('o look.')
9. ((pointing to picture))
10. ***el león tropezó en algo!***
11. ('the lion crashed into something!')
12. ((turns page))
13. Huh! ((points to page)) ***lo cacharon! mira.*** ((pointing to picture))
14. ('they caught him! look.')
15. Alma: ***si. huh! YO SÉ!*** ((raises her arm up, looks up at Ofelia, and clasps her
16. hands over the page)) ***la liga la van a catar!***
17. ('yes. huh! I KNOW! the string [in reference to the rope in the picture] is
18. going to [capture] the lion!')

After Ofelia repeats the "*mira* [look]" directive (lines 7 and 13), Alma seems to venture further to elaborate on Ofelia's narration of the climactic event of catching the lion. In accordance with the warm interaction style, Ofelia follows this exchange by using the "RRROAARRRRRRRRR" indicated on the page (p. 21) to playfully take turns roaring like a lion. Therefore, Ofelia appears to provoke Alma's engagement by attending to the pictures while compelling Alma to become a more active participant in constructing the narrative. Furthermore, Alma replicates repetitive word prompts in a later excerpt, suggesting that Alma is initiating an engagement practice that Ofelia previously modeled.

While sitting together around the table, the Hernández family similarly implemented questioning on the part of Juliana to gently encourage Carolina, the focal child, to engage in the interaction. Juliana asks Carolina to look ("*¿vés*?" ['look']) as means of garnering the focal child's engagement in reading *The Lion and the Mouse* (Pinkney, 2009) and addressing the mother's prompting to identify characters in the picture (*"¿y esos que eran?*"). Therefore, repeated commands and questions grounded in a warm interaction style nurtured engagement in shared reading. Due to this explicit

practice, focal children may have been prepared socially and emotionally to participate in reading and engage with the text and illustrations as part of a dialogue with their older siblings.

Using social cues. Older sibling practices also entailed using explicit social cues to regulate focal children's behavior in accordance with the task. Social cues were verbal and nonverbal and occurred together. Importantly, both verbal and nonverbal cues were gentle rather than harsh, consistent with the warm interaction style. In the Hernández Family and the Lopez Family, Juliana and Ofelia externally regulated the focal children's attention when the focal children were unable to regulate attention themselves. As the mother, Juliana, and Carolina sat together on the same side of the table, Juliana used a verbal cue ("sh:::") combined with eye contact and gently pulling on the focal child's arm to remind Carolina to demonstrate appropriate behavior of listening to the mother's reading of the text and resist the impulse to bounce a ball on the table. Ofelia Lopez also utilized nonverbal cues such as holding her finger up and putting her hand on the page as well as informal verbal cues ("*pérate.*" ['Wait.') for Alma to focus on the appropriate page and avoid skipping ahead. In each case, Alma complied with the prompts by exhibiting appropriate behavior and inhibiting inappropriate behavior. Therefore, use of social cues was a socialization practice that seemed to explicitly foster the focal child's social emotional skills of task orientation and overall engagement. Possibly, focal children were more likely to meet expectations and orient behavior to the task due to the intimacy and affection established through older siblings' warm interaction style.

Socializing Autonomy using Responsive Interaction Styles

Modeling how to connect to prior knowledge. The older siblings' responsive interaction styles were informed by sensitivity to prior knowledge and areas of challenge for focal children. Older siblings then relied on expertise to establish connections that allowed focal children to demonstrate and deepen understanding of the content of the text.

In the Flores family, Fabiola was monitoring the focal child, Vanessa's, reading and was responsive to Vanessa's difficulty understanding animal concepts in the book, *Panda Bear, Panda Bear, What Do You See?* (Martin & Carle, 2006). Fabiola made the concept of a black panther accessible to Vanessa through clues ("like pink panther. ((1)) but it's black.") that drew on the focal child's prior knowledge of pop culture. Vanessa then enthusiastically volunteered an attempt to identify the animal in Spanish ("okay wait. Let me guess. ((2)) "black" *pa-pantera.* 'panther'), to which Fabiola responded by guiding Vanessa in translating the animal label to English. In the Lopez family, Ofelia paused from using the Spanish in the text of the book to describe an animal in the book ("HUH! UN FISHY!). Ofelia then used a combination of Spanish and English ("*¿cómo es la cara* de fishy?" 'how is the face of the fishy?') to elicit Alma's understanding of the English concept of "fishy" while also effectively conveying expectations for Alma's participation (to demonstrate a fish's face). Alma followed through by putting her hands around her mouth to produce a fish face.

The older sibling's responsive interaction style allowed the older sisters in the Flores and Lopez families to listen to and monitor focal children's reading. Furthermore, older siblings provided scaffolds to fill lapses in focal children's understanding based on an awareness of the focal child's conceptual schemas in both English and Spanish. By

modeling how to connect to prior knowledge, older sisters guided focal children in retrieving and expressing prior knowledge related to their schemas for animals, such that focal children used existing schema to learn a novel concept (i.e., black panther) or the linguistic translation of a concept from the text (Bronson, 2000).

Sensitivity in problem solving. The authors found that older siblings seemed to model problem solving for the focal children by making adjustments to the shared reading environment or task itself. Sensitivity in problem solving coincided with the responsive interaction style in which older siblings were receptive to the developmental needs of other participants in reading. Ofelia Lopez implemented problem solving to promote the inclusion of all family members in shared reading by identifying a book that supported her mother and Alma's language preferences. In the second visit, the mother expressed a desire to look for Spanish books, to which Ofelia responded by taking action to obtain another household book. Later on, upon learning that her mother was avoiding reading English books, Ofelia presented the alternative option of a household book not provided by researchers (*Bebé Goes to the Beach;* Elya & Salerno, 2011). When the mother expressed concern over the book being in English, Ofelia pointed out that the book was bilingual, which allowed the mother, Ofelia, and Alma to read the book together. Although Alma was exclusively an observer, these interactions between the mother and Ofelia provided unique opportunities for Alma to observe Ofelia engaging in problem solving strategies that fostered a more inclusive reading environment.

Juliana Hernández modeled problem solving by responding to Carolina's hesitation in reading an alphabet book in English (*A to Z*). A pattern was established prior to this instance in which Carolina read the letter of the alphabet presented in the text and

Juliana read the alliterative phrase of text that began with that letter. In demonstration of the responsive interaction style, Juliana monitored Carolina's reading and attended to her behavior. Therefore, Juliana noticed Carolina's confused facial expression upon reaching the letter "P". Rather than exempting Carolina from the interaction or overstepping her, Juliana responded to Carolina's hesitance by whispering the letter "P" on the page in Carolina's ear, which Carolina then repeated as part of the turn-taking ("P?"). In a later interaction in the final visit, Juliana was also responsive to the mother's experience of challenges reading in English. To "solve the problem," Juliana facilitated her mother's reading by providing corrections. Juliana subsequently offered to take on the reading task for this book *("¿Just quiero leer I?"* ['Do you just want me to read?']), which the mother accepted.

Through modeling of problem solving which co-occurred with a responsive interaction style, older sisters exemplified practices supporting cooperative interaction (Bronson, 2000). The socialization practice was implicit given that older siblings demonstrated the purpose of problem solving and examples of problem solving for the focal child to internalize and eventually execute autonomously.

Modeling negotiation of roles. Older siblings also oriented focal children to social roles in reading interactions, which was aligned with a responsive interaction style characterized by flexible role-taking in the authority position. Such modeling of negotiation of social roles in reading appeared to encourage focal children to experiment with more autonomous involvement in reading activities.

In the Flores and Hernández families, the older sisters clearly established expectations for organizing roles in reading tasks. Fabiola Flores established a pattern of

reading a line of text first (i.e. "*yo leo primero XX*. ['I read first XX'] ((reading line from text of book)) 'and he walk along.'"), to which Vanessa responded either by repeating Fabiola's line afterward (i.e. "and he wal along.") or reading the next word or line of text. The Hernández family set expectations about reading procedures collectively, with Juliana and her mother delegating or dividing up reading roles and selection of books. Juliana took on an authority position, initially by providing assistance to others and then by taking the lead in the reading task. However, both Fabiola and Juliana also modeled that exchange of authority was possible regarding roles of reading, correcting, or selecting books. Vanessa and Carolina volunteered to read, which suggested that focal children were included in the flexible distribution of roles. *Panda Bear Panda Bear What Do You See?* (Martin & Carle, 2006) or the Spanish version, *Oso Pardo, oso pardo, ¿qué ves ahi?* (Martin et al., 2002), served as tools for negotiation of roles in all three families. Both versions of the book feature a pattern of text involving a rhyme scheme and a refrain that the older sibling or focal child returned to at every other page. All three families relied on the structuring of the story to create a communal activity featuring an exchange of participation between family members.

The following example of negotiation of roles in the Flores family took place during the fifth observation period during reading of *Oso Pardo, oso pardo, ¿qué ves ahi?*. Initially, toward the end of the book, Vanessa tells Fabiola that she wants Fabiola to read (line 9). However, Vanessa then seems to change her mind, pausing to inspect the remaining pages, then volunteering to read in the sequence of turn-taking (lines 13-17). In addition to making a verbal indication of support of Vanessa's desired leadership effort (line 18), Fabiola also nonverbally signals support by reorienting the book (line 19)

and pointing out the text (line 21) to facilitate Vanessa's takeover of reading. Importantly, Fabiola is responsive to Vanessa' eagerness to participate in reading while also sensitive to Vanessa's self-appraisal of the appropriateness of taking on the reading task by examining the remaining pages. In support of Vanessa's initiation, Fabiola cedes her position of authority in the interaction as lead reader of this book to allow Vanessa to take the lead in reading.

1.	Fabiola:	**"*¿pez dorado pez dorado que ves allí? veo la maestra que me mira a mi.*"**
2.		('goldfish goldfish what do you see there? I see the teacher looking at
3.		me.')
4.		((Fabiola turns page and gestures to page)).
5.		((1))
6.		**"*teacher. maestra.*"**
7.		('teacher. teacher.')
8.		((Looks at Vanessa))
9.	Vanessa:	***XX quiero*** ((1)) **XX *leas tu.***
10.		('I want you to read.')
11.	Fabiola:	**"*maestra maestra.*"-**
12.		('teacher teacher.')
13.	Vanessa:	**-wait wait.** ((starts to lay plate of food down and grasp at page)) **let me**
14.		**see all the pages.**
15.		((counts the pages [to see how many are left]. Vanessa uses fingers to turn
16.		to page))
17.		**oh okay. I'll do it.**
18.	Fabiola:	**you wanna do it?** ((looks at Vanessa, changes the page))
19.		((orients book in direction of Vanessa))
20.		**like this? Here**
21.	Vanessa:	((Fabiola has finger on page, seemingly on text)) **"*¿maestra maestra que*
22.		***ves allí? yo veo"***
23.		('teacher teacher what do you see there? I see')
24.		((1))
25.		**"*niños que. me. miran a mi.*"**
26.		('children looking at me.')
27.	Fabiola:	((Fabiola turns page and moves book toward her))
28.		**"*¿niños niños que ven allí?*"**
29.		('children children what do you see there?')

During the third observation period in the Hernández family, Carolina selected the book *Chica Chica Bum Bum ABC* ("I want chica chica bum bum"), after which Juliana led the reading of the book Carolina selected. While reading *Oso Pardo, oso pardo, ¿qué ves ahi?,* Carolina also subtly "volunteered" to read by contributing text that she had memorized, initially mumbling followed by enunciating more clearly. This initiation occurred after Juliana expressed positive regard for the book ("*a este es mi favorito.*"

['This is my favorite.']). Therefore, Carolina's participation may have also been an expression of investment in reading tasks for personal enjoyment and enjoyment of others.

In addition to introducing guidelines for the focal child to engage in reading, it is critical to creative a supportive environment in which the focal child can participate and explore more autonomous forms of participation. Through negotiation of roles in selection and reading of books, older siblings implicitly and explicitly exposed focal children to modes of participation in which they were both setting and executing goals for social participation.

Modeling asking for help and providing help. By modeling seeking and providing help, the older siblings established expectations for others to participate in shared reading as both teachers and learners. The older sisters in the Flores and Hernández families primarily promoted helping behaviors. The older siblings in both families modeled help-seeking by asking their mother for assistance with pronunciation and vocabulary in Spanish. Importantly, the mother in the Flores family modeled that even she could transition from the role of teacher to learner by asking for help from the older sisters, particularly when reading more advanced English texts such as *Harold and the Purple Crayon*.

Similarly to older siblings, focal children demonstrated help-seeking, such that focal children identified sources of difficulty and older siblings provided assistance. During the first observation period in the Flores family, Vanessa opened the book, *Oso Pardo, oso pardo, ¿qué ves ahi?,* and brought it close to her face, expressing uncertainty. Vanessa solicited help from Fabiola by identifying where she was experiencing difficulty

(*"Yo no sé que dice"* ['I don't know what [the word] says']), to which Fabiola responded by reading the word that Vanessa could not read. In addition to explicitly asking for help, Vanessa also used an inquiring tone when encountering a challenge reading a certain word ("s:::winging or running. swinging? Swinging?"), which Fabiola noted as a signal for providing the correct word ("strolling.") or pronunciation.

Older siblings modeled seeking and providing help as an effective social interaction strategy (Bronson, 2000), which supported inclusive participation in varying roles in shared reading. In this case, focal children were able to take the examples modeled and autonomously enact help-seeking for a more productive shared reading interaction.

Discussion

The aim of the current study was to explore the processes through which Latinx older siblings socialize focal children's social emotional competencies. Importantly, shared reading served as a social context for observing support of social emotional skills. Ultimately, thematic analyses based on Bronson's (2000) framework for social emotional skill development revealed older sibling practices for socializing social emotional competences that co-occurred with warm or responsive interaction styles.

Older Sibling Interaction Styles and Practices in Shared Reading Context

Older siblings practiced commands or questions and social cues in co-occurrence with a warm interaction style. Importantly, commands or questions as well as social cues were explicit practices for directly regulating focal children's behavior (Bronson, 2000; Kuczynski & Kochanska, 1995). Commands and questions directed children's attention to elements of the story, while social cues guided and sustained focal children's task

orientation. Warm sibling interaction styles seemed to establish an environment that reinforced focal children's development of social emotional skills (Laible et al., 2015), such that focal children were encouraged to follow social expectations as engaged participants in shared reading (Aram & Aviram, 2009; Bus, 2003; Doyle & Bramwell, 2006; von Suchodoletz et al., 2011). Given the co-occurrence between these socialization practices and a warm interaction style, findings have implications for the different functions of commands, questions, and cues depending on tone and context of delivery.

Older siblings modeled connecting to prior knowledge, sensitivity in problem solving, negotiation of roles, and asking and seeking help in co-occurrence with a responsive interaction style. The responsive interaction style suggests that socialization practices were informed by a learner-centered approach (Goodwin, 2017; Recchia et al., 2009). The component of the responsive interaction style pertaining to the balanced distribution of roles may be integral to social emotional skill development, as focal children were involved at multiple levels in contributing to shared reading interactions. Compared to parents, older siblings may be uniquely positioned to effectively broker between roles of authority, given the more balanced power dynamic between older and younger siblings (Brownell & Carriger, 1998; Buhrmester & Furman, 1990; Dunn, 2015). Importantly, the responsive social environment created by older siblings may have established a secure base for focal children to experiment with more autonomous roles in reading under the guidance of the older sibling (Aram & Aviram, 2009; Bronson, 2000; Bus, 2003; Doyle & Bramwell, 2006). Therefore, older siblings' responsive practices potentially spurred focal children's participation not simply out of compliance but to execute individual or collective goals for the shared reading interaction.

Overall, older siblings' warm and responsive interaction styles are aligned with the high-quality relationships established as the context for socializing social emotional skills (Baumrind, 1971; Darling & Steinberg, 1993; Karreman et al., 2006; von Suchodoletz et al., 2011). Thus, findings signal the significance of *older sibling* socialization practices and interaction styles, which were primarily reserved for parents. Lastly, there was some variation among families in the interaction styles that older siblings demonstrated. The Lopez family demonstrated higher frequencies of the practices co-occurring with warm interaction style, while the Flores family demonstrated higher frequencies of practices co-occurring with the responsive interaction style. These differences may reflect a difference in older siblings' approaches to the task between the two families, especially because families were not provided with instructions around interacting with books. In the Lopez family, Ofelia may have approached shared reading primarily as an opportunity for family connection and play, which warrants a warm interaction style (Davidov & Grusec, 2006). Importantly, in the Lopez family, the age gap between Ofelia and Alma was the highest, and the frequency of reading with an older sibling was the lowest. Thus, the reliance on the warm interaction style may also have implications for the interaction styles used between siblings with a larger age gap or between siblings who read together less often. Fabiola in the Flores family may have approached shared reading largely as a didactic activity to scaffold Vanessa's learning of reading, warranting a responsive interaction style (Goodwin, 2017; Recchia et al., 2009). In contrast to the Lopez family, there was a smaller age gap between Fabiola and Vanessa in the Flores family, and the Flores family also reported the highest frequency of reading with an older sibling. Consequently, older siblings who are closer in age a to a younger

child and possess greater awareness of the younger child's reading skill may be able to demonstrate greater responsiveness to the younger child.

Latinx Older Siblings' Culturally Adaptive Supports

Though generalizations cannot be drawn from the current study, the older siblings' warm and responsive interaction style may be consistent with cultural values held in Latinx immigrant families. Warm and responsive interaction styles may be reflective of *familismo* and helping behavior to be *acomedida* (Killoren et al., 2015; Li-Grining, 2012; López et al., 2012). In contrast to a hierarchical conceptualization of authority in which authority figures set social expectations and demands for those lacking authority, Latinx older siblings may rely on a collectivist distribution of roles in which responsibilities and tasks are shared (Greenfield & Cocking, 2014; Raeff et al., 2000). The practices co-occurring with warm and responsive interaction styles may also be culturally specific. Socialization practices were demonstrated bilingually in English and Spanish, suggesting that Latinx immigrant children are socialized to navigate between home and school languages (Soltero-González, 2009; Williams & Gregory, 2001). According to White cultural frames, commands, questions, and social cues may be associated with controlling interaction styles (Kuczynski & Kochanska, 1995). Yet in an environment of closeness and collectivism in Latinx families, such practices may be aligned with warmth rather than conflicting with warmth. Additionally, expectations for well-behaved children (*respeto*) in Latinx families may have driven older siblings to use commands, questions, and social cues to promote younger children's social emotional skills such as behavior management (Calzada et al., 2010; Li-Grining, 2012; Pintar Breen et al., 2018). Also in the Latinx cultural frame, problem solving, negotiating, and helping

may be integral to shared reading as a collective family activity in which family members are *acomedida* towards each other.

Limitations and Future Directions

Importantly, Bronson's (2000) framework for the role of adults in supporting children's social emotional skills may not capture the types of supports older siblings provide given their positioning as children in the family as well as caregivers of younger children (Dunn, 2015; Howe & Recchia, 2009; White & Hughes, 2017). However, Bronson's framework was developed according to theory of learning in social interactions with a more knowledgeable partner (Vygotsky, 1978) and models of behavior (Bandura & Walters, 1977). Therefore, current study findings based on Bronson's (2000) framework may expand conceptualization of supportive roles to reflect older sibling interactions. Given that older siblings were not focal children in the study, our understanding of older sibling socialization practices are limited to interactions in which older siblings entered on their own volition or at the mother's request. It is also possible that older siblings were performing desirable behavior for the observer. However, the voluntary or solicited participation of the older sibling identified from recordings taken on six different occasions over several weeks may be indicative of older siblings' naturalistic roles in socializing children's social emotional competencies.

Current findings build on understanding of socialization of social emotional skills in early childhood by demonstrating socialization practices of non-parental family members such as older siblings within Latinx immigrant families. Future qualitative studies might involve observations centered on Latinx older siblings interacting with younger children. The authors cannot make the claim from the current study that the

social emotional skills demonstrated and supported reflect social emotional skills for learning to read. However, given that shared reading requires social emotional skills, a future area of inquiry should be to identify those social emotional skills essential to literacy development. Lastly, findings have implications for the influence of age range and gender on older sibling roles in socializing social emotional competencies. In all case families, older siblings were females in middle childhood, consistent with other studies revealing the contribution of sisters in this age range to children's early social emotional skills (Hill & Palacios, 2019; Sang & Nelson, 2017). Latinx older sisters may also be demonstrating roles consistent with cultural expectations for caregiving (Andrés-Hyman et al., 2006). It may be that older brothers are involved in socializing social emotional skills in contexts other than book time, but further observational studies are needed for deeper understanding of the gendering of older sibling roles.

Conclusion

Though older siblings uniquely contribute to socializing younger children's development (Brownell & Carriger, 1998; Dunn, 2015), the processes through which older siblings socialize younger children's social emotional skills during reading are less understood given the focus on parents. Moreover, defining such socialization processes in Latinx immigrant families must encompass cultural value systems such as sharing of socialization roles with older siblings (Killoren et al., 2015; Raeff et al., 2000). As a result, the authors examined how Latinx older siblings support younger children's social emotional competencies in the context of shared reading. The authors found that older siblings exhibited a variety of socialization practices for modeling and supporting social emotional behaviors, which co-occurred with warm and responsive interaction styles. The

older sibling practices familiarized focal children with social expectations for shared reading, fostered their task engagement, and supported their autonomous participation in shared reading roles. Findings reveal how in the context of shared reading within Latinx immigrant families, older siblings socialize children's social emotional skills using practices and interaction styles that are consistent with parental socialization of social emotional skills and potentially adaptive to Latinx culture.

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Table 1.
Co-occurrence of socialization practices and interaction styles

Social and Emotional Milestone or Role of adult (Bronson, 2000, p. 218)	Socialization Practice	Definition	Example
		Warm Interaction Style	
Can learn more effective interaction strategies	Using commands or questions	Placing demands on the focal child to maintain or redirect attention while meeting social expectations for task participation; Questions to prompt attention to task; May also provide justification for follow-through	Book: *The Lion and the Mouse* 1. Juliana***: ¿ves?*** 2. ('You see?') 3. Carolina: ***un-un león atrapado*** 4. ('a-a trapped lion')
More capable of controlling emotions, abiding by rules, and refraining from forbidden behaviors	Using social cues	Verbal and nonverbal cues to explicitly support individual control of behavior	Book: *Oso Pardo, oso pardo, ¿qué ves ahi?* 1. ((Ofelia holds finger up 2. indicating that Alma has to wait 3. before turning the page)) 4. Ofelia: ***"veo una rana verde*** 5. ***que me mira a mí."*** 6. ('I see a green frog looking at 7. me.') 8. ((Alma turns page)) 9. Ofelia: ***pérate.*** 10. ('wait.') 11. ((Ofelia puts hand on page to 12. prevent Alma from turning 13. page))

Responsive Interaction Style			
Can learn more effective interaction strategies	Modeling how to connect to prior knowledge	Demonstrating sensitivity to the prior knowledge/schema of the focal child, the relative areas of challenge for the focal child; Exhibiting awareness on the part of the older sibling of when to use expertise to guide the focal child in demonstrating and deepening understanding of content; May take the form of connections between story content and focal child's prior knowledge, providing cues and clues;	Book: *Panda Bear, Panda Bear, What Do You See?* 1. Vanessa: **"bla:ck."** 2. Fabiola: ((frequently shifting 3. eyes to television)) **like pink** 4. **panther.** 5. ((1)) 6. **but it's black.** 7. Vanessa: **okay wait. Let me** 8. **guess.** 9. ((2)) 10. **"black" *pa-pantera.*** 11. ('black panther.') 12. Fabiola: **what is pantera=** 13. Vanessa: **="PANTHER"**
Capable of cooperative interaction	Sensitivity in problem solving	Making adjustments to the environment or the nature of the task to meet the developmental needs of the focal child or other family members; Providing solutions to ensure inclusive task participation	Book: *A to Z* 1. ((Carolina makes confused facial 2. expression)) 3. ((Juliana whispers "P" into FC's 4. ear)) 5. Carolina: **"P?"** 6. Juliana: **"penguins pain:ting?"**

Responsive Interaction Style (continued)			
More capable of controlling emotions, abiding by rules, and refraining from forbidden behaviors; Capable of cooperative interaction	Modeling negotiation of roles	Orienting focal children to social roles in reading interactions/reading as a social practice and promoting flexible role-taking in the authority position; Presenting opportunity or option for focal child to read	Book: *Chica Chica Bum Bum ABC* 1. Fabiola: ***"¿as as a ese a ese*** 2. ***cocotera? cocotero primero*** 3. ***llegaré.***" 4. ('to that to that coconut tree? I 5. will reach the coconut tree first.') 6. ((looks at Vanessa)) 7. **"*¿diga. see? diga.*"** 8. ('say it. yes? say it.') 9. ((Fabiola points book toward 10. Vanessa)) 11. Vanessa: **"*Chica chica bum*** 12. ***bum.*"** 13. Fabiola: **ya.** 14. ('yeah.') 15. Vanessa: **where are you?** 16. ((looks at FC)) 17. Fabiola: ***ya.*** "***¿crees que hay*** 18. ***espacio? por allí va la H y no*** 19. ***va des-des.pa.cio***." 20. ('yeah. do you think there is 21. room? the H goes through there 22. and it's not going slowly.')
Can learn more effective interaction strategies; Social interaction styles and strategies	Modeling asking for help and providing help	Demonstrating how to provide assistance to other family members and seek assistance from others; May take the form of pronouncing/correcting words for others	Book: *Panda Bear, Panda Bear, What Do You See?* 1. Vanessa: **s:::winging or** 2. **running. swinging? swinging?** 3. Fabiola: **"strolling."** 4. Vanessa: **huh?** 5. Fabiola: **"strolling."** 6. Vanessa: **"strolling by me."**

Table 2.
Frequency of co-occurrences by three case families

	Flores	Hernández	Lopez	Total
Warm Interaction Style				
Using commands or questions	1	1	3	5
Using social cues	0	1	1	2
	1	2	4	
Responsive Interaction Style				
Modeling how to connect to prior knowledge	3	0	1	4
Sensitivity in problem solving	0	2	2	4
Modeling negotiation of roles	5	5	1	11
Modeling asking for help and providing help	5	2	0	7
	13	9	4	

8 Frequency of co-occurrences by three case families

Appendix

Table A1.
All emerging themes and sub-themes

Milestone/Role of Adult (Bronson, 2000, p. 218)	**Emergent Sub- themes**
Emergent Theme 1: Warmth	
Can learn more effective interaction strategies	• Using command or questions
Can engage in dramatic play with roles and rules	• Adding to reading text, more playful, through sounds or body movement • Asking questions to support/prompt engagement/participation THROUGH dramatic play (FC)
More capable of controlling emotions, abiding by rules, and refraining from forbidden behaviors	• Using social cues
Social interaction styles and strategies	• Promoting perseverance/endurance in the context of reading
Emergent Theme 2: Responsiveness	
Can learn more effective interaction strategies	• Modeling how to connect to prior knowledge • Providing assistance upon request
Capable of cooperative interaction	• Sensitivity in problem solving • Giving FC the option or presenting opportunity for FC to read; negotiation of roles
More capable of controlling emotions, abiding by rules, and refraining from forbidden behaviors	• Modeling going beyond obedience, to show enthusiasm and investment; modeling initiative; leadership; reading as a social practice
Social interaction styles and strategies	• Asking for help

Note. The themes and sub-themes shown here were identified from initial coding prior to re-examination for patterns occurring across the three case families

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Manuscript 3: Profiles of Parenting in Black Families and Associations with Black Children's Early Childhood Social Emotional Skills

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(under review)

Hill, T.Y. (under review). Profiles of parenting in Black families and associations with Black children's early childhood social emotional skills.

Abstract

In early childhood, children develop essential social-emotional skills during parent-child interactions featuring sensitivity, cognitive scaffolds, authoritative parenting, and secure attachment (Ainsworth, 2015; Baumrind, 1971; Darling & Steinberg, 1993). Yet, research on parenting and social emotional skills is based on White families (Bornstein et al., 2017; Meléndez, 2005), which perpetuates the portrayal of Black children and families as deficient and ignores cultural elements of parenting that may be protective for social emotional skills in certain sociocultural contexts. Therefore, the current study examines 1) Which parenting typologies emerge in Black families? and 2) How are typologies predictive of Black children's social-emotional skills? Latent profile analysis using the ECLS-B (n = 1,750 Black families) was implemented to identify Black parenting typologies. Structural equation modeling was used to assess the association between profiles and preschool negativity, play quality, engagement, cognitive regulation, social skills, and behavior problems. LPA revealed High Multidimensional Support, Average Multidimensional Support, Authoritative Low Support, Dependent Physical Discipline, and Low Support High Security profiles. While compared to all other profiles, the supportive parenting profiles were beneficial across social emotional outcomes excluding cognitive regulation, the Low Support High Security profile was better for engagement and negativity relative to the Authoritative Low Support profile. Findings reveal a comprehensive representation of Black parenting and suggest that social emotional interventions serving Black families must be responsive to the parenting typologies that families actively implement as well as how typologies are shaped by sociocultural factors.

For children to regulate themselves in social interactions in toddlerhood, parents must socialize children to internalize parent's guidelines for control of behavior and emotions as part of social emotional skills (Bronson, 2000; Calkins, Smith, Gill, & Johnson, 1998; Kopp, 1982; Kuczynski & Kochanska, 1995). Though current understanding of socialization of social emotional skills has informed supports for Black families in building children's school readiness (Dozier, 2019; Duch, Marti, Wu, Snow, & Garcia, 2019; Errázuriz et al., 2016; Kjøbli & Ogden, 2012; Lowell et al., 2011; Murray et al., 2016; Nowak & Heinrichs, 2008; Shelleby et al., 2012), the components of parenting integral to socializing social emotional skills were conceptualized based on White families (Karreman et al., 2006; McLoyd & Steinberg, 1998; Meléndez, 2005). Consequently, current understanding of parental socialization of social emotional skills may not reflect the needs or experiences of Black families regarding social emotional development. Moreover, early childhood studies of socialization of Black children's social emotional skills often focus on developmental trajectories of risk behaviors or gaps in school readiness between Black children and children of other races/ethnicities (Aratani, White, & Cooper, 2011; Iruka, 2017). Such research fails to highlight parental socialization mechanisms within Black families that are adaptive for their specific sociocultural context (Coll et al., 1996).

In order to identify adaptive parental socialization mechanisms that promote social emotional skills in Black children, it is necessary to explore the variability in parenting elements such as parenting behaviors, attitudes, and attachment styles in Black families. Additionally, it is essential to consider variability in the ways in which elements of parenting co-occur. Generating typologies of parental socialization within Black families is a means of identifying the patterns of parenting elements that co-occur as Black families' diverse approaches to socialization. In contrast to previous studies either neglecting Black families or portraying Black families through a deficit lens, a person-centered approach reveals typologies reflecting the full breadth of parenting behaviors and attitudes that Black families demonstrate in socializing their children's positive development of social emotional skills (Collins & Lanza, 2010). Therefore, the current study builds on prior literature addressing Black parenting approaches to socialization of social emotional skills (Bakermans-Kranenburg et al., 2004; Barbarin & Jean-Baptiste, 2013; Calkins, 2017; Caughy et al., 2002; Dunbar et al., 2017; Elmore & Gaylord-Harden, 2013;Harris & Graham, 2014; LeCuyer & Swanson, 2017; Rouland et al., 2014) to characterize typologies of Black parenting that are adaptive and relevant for early childhood social emotional skills. I implement the person-centered approach of latent profile analysis (LPA) to investigate: *RQ1) Which typologies of parental socialization practices emerge in a Black sample of families?* and *RQ2) How are typologies predictive of social emotional skills in Black children?*

Social Emotional Skills

Social emotional skills function jointly as the capacity to address emotions and behaviors in service of a task (Blair, 2002; Blair & Diamond, 2008; McClelland &

Cameron, 2011). Social emotional skills consist of social and interpersonal skills, emotional processes, and cognitive regulation (Jones & Doolittle, 2017). In early childhood, emotional processes allow the child to control emotional responses to stimuli at home or in the classroom. For example, the child may respond to the parent's emotional cues of warmth with positive affect or regard. Using cognitive regulation, children may adjust attention or focus appropriately based on the demands for a task, such as playing with a toy. In social environments, a child must draw on social and interpersonal skills to conduct their emotions and behaviors to interact cooperatively and meet social expectations (Bronson, 2000; Jones & Doolittle, 2017). In order to better understand how social emotional skills emerge in Black children, it is essential to understand Black parents' approaches to socializing children's social emotional competencies in early childhood.

Parenting Behaviors, Parenting Attitudes, and Attachment Relationships as Setting for Socialization of Social Emotional Skills

According to the conventional, White middle-class frame of positive parenting, parenting behaviors, parenting attitudes, and attachment relationships are central elements of parent-child interactions that establish an essential social context for socializing social emotional skills (Darling & Steinberg, 1993). The nature of parent-child interactions predicates whether the child is able to internalize expectations for regulating emotions and behaviors, initially understanding and meeting expectations of the parent and then regulating one's own emotions and behavior (Bronson, 2000; Kopp, 1982).

Parenting behaviors as dimensions of parenting style. The parenting style itself is defined along dimensions of parenting behavior toward the child (Darling & Steinberg, 1993; Spera, 2005). Dimensions of parenting behavior serve as the inputs to children's development of social emotional skills. Dimensions such as parental warmth or positive regard pertain to the parenting behaviors of positive affect, affection, and positive reinforcement of the child's behavior and emotions (Davidov & Grusec, 2006). The dimension of parental sensitivity applies to a parent's receptiveness, understanding, and ability to address a child's needs and signals (Mesman et al., 2012; Ainsworth, 2015). Parental sensitivity and parental warmth are predictive of improvements in internalization of behavioral expectations and behavioral regulation (Eisenberg et al., 2005; Grolnick & Ryan, 1989; von Suchodoletz et al., 2011), pointing to their importance for social emotional development.

As an additional socialization behavior for children's development of regulatory capacity, parents must exert levels of control over the child's behavior. Positive control, which provides a child with instructions for behavior, is a dimension of authoritative parenting styles and is thought to be the adaptive form of control for social emotional skills. Conversely, negative control or intrusiveness manifests as physical or hostile demonstrations of power, and is thought to be maladaptive (Calkins, Smith, Gill, & Johnson, 1998; Karreman et al., 2006; Kuczynski & Kochanska, 1995). Therefore, parenting behaviors such as sensitivity, positive regard, and control are critical indicators of parenting for their role in children's social emotional skills.

Parenting attitudes informing parenting style. Parents identify with certain beliefs and attitudes as to how to interact with their children and respond to children's

behavior. The attitudes of the parent as well as parenting styles shape parents' approaches to interacting with the child (Darling & Steinberg, 1993) and cultivating the child's social emotional skills. A parent endorsing authoritative beliefs may express positive regard and responsiveness to the child's behavior, applying disciplinary techniques that allow the child to understand the implications of misconduct (Baumrind, 1971). By shaping the parenting style, parenting attitudes serve as the set of expectations for children's regulation of emotions and behaviors, thus shaping their approaches to socializing children's social emotional development.

Attachment relationships. The attachment relationship refers to the parent's investment in interactions with the child, such that the parent prepares the child to navigate the social emotional demands of their environment (Ainsworth, 2015; Bakermans-Kranenburg et al., 2004; Baumrind, 1971). In a secure attachment style, the parent demonstrates supportive parenting behaviors of sensitivity, warmth, and cognitive stimulation, serving as a secure base that the child can consistently rely on for protection and consolation of emotional distress (Ainsworth, 2015; Baumrind, 1971). In contrast, a parent in an insecure attachment relationship is inconsistent or entirely unreliable in supplying protection and support (Ainsworth, 2015). Thus, the attachment relationship is an indicator of the social and emotional components of parent-child interactions that has clear implications for children's social emotional skills. Secure attachment has been linked to positive cognitive regulation outcomes such as executive functions (Matte-Gagne et al., 2018) and effortful control (Nordling et al., 2016), while poor attachment styles such as insecure/other and ambivalent attachment are indicative of negative cognitive regulation outcomes such as worse task engagement (McCormick et al., 2016).

Summary. Parenting behaviors, parenting attitudes, and attachment relationships establish the parenting setting for development, as they characterize the relationship between parent and child and the nature of interactions between parent and child (Ainsworth, 2015; Baumrind, 1971; Darling & Steinberg, 1993). Therefore, parenting behaviors, attitudes, and attachment must be considered as indicators of parenting profiles and their association with children's social emotional skills. Yet it is important to note that the settings in which parents and children interact to socialize social emotional skills are socioculturally constructed and may vary based on sociocultural influences of minoritized racial/ethnic groups (Coll et al., 1996). Given this variation, it is necessary to explore Black parenting approaches to socializing children's social emotional competencies within sociocultural systems of influence.

Parental Socialization in Cultural Context

As a minoritized racial/ethnic group, Black children and their development of social emotional competencies are driven by sociocultural factors operating in multiple systems of influence (Coll et al., 1996). Black children's social emotional skills are directly socialized within the family system. However, cultural belief systems determine parents' attitudes, goals, and behaviors for socialization of social emotional skills (Trommsdorff, 2009). Furthermore, culturally driven approaches to socialization are taken in response to environments that are promoting or inhibiting based on availability and access to resources (Coll et al., 1996). Black families are often studied in the context of inhibiting or high-risk environments such as poverty and single parent families, which may not be representative of the full range of parenting among Black families (Kia-Keating et al., 2018; Knight et al., 2009). In order to reveal the potential range of

approaches to socialization of social emotional skills based on the sociocultural factors at play, it is necessary to examine within group variation among Black families in socialization settings such as parenting attitudes, parenting behaviors, and attachment relationships.

Parental Socialization of Social Emotional Skills in Black Families

Elements of parenting such as authoritative parenting attitudes, warm, sensitive, stimulating parenting behaviors, and secure attachment have been conceptualized as positive parenting for social emotional development based on White middle-class families (Ainsworth, 2015; Baumrind, 1971; Mesman et al., 2012; Karreman et al., 2006; McLoyd & Steinberg, 1998; Meléndez, 2005). Certain elements of parenting that have been identified as conventional positive parenting in White middle class families have also been documented in Black families. Parent child relationships involving authoritative parenting attitudes (LeCuyer & Swanson, 2017; Mandara & Murray, 2002), parental warmth (Aratani et al., 2011; Authors, under review), sensitivity (Bakermans-Kranenburg et al., 2004), and secure attachment styles (Magai et al., 2001; Rice et al., 1997) seem to serve as adaptive social contexts for social emotional development in Black families (Mesman et al., 2012).

However, the literature on parental socialization of social emotional skills in Black families suggests that the conventional elements of positive parenting may not translate exactly to the cultural context of Black parenting. Though warmth seems to be a significant parenting behavior, Black parents may also show higher levels of control (Barbarin & Jean-Baptiste, 2013), intrusiveness, and physical discipline (Pungello et al., 2009). Higher control or intrusiveness could be an adaptive response to regulating the

child's behavior and maintaining safety in inhibiting environments with multiple stressors (Brody & Flor, 1998; Harris & Graham, 2014; Iruka, 2017).

In a study of African American mothers and children, parenting variables such as the no-nonsense parenting style and mother-child relationship quality contributed indirectly to children's competencies (fewer internalizing problems, greater cognitive and social competence) through children's cognitive regulation. No-nonsense parenting is a Black parenting style entailing control and intrusiveness along with warmth (Brody & Flor, 1998; Iruka, 2017).

These findings suggest that parenting behaviors such as warmth and sensitivity are important for Black families when considering social emotional development. Specific to Black families, warmth may co-occur with control. In order to better understand the use of parental warmth, sensitivity, control, and attachment as part of an adaptive cultural approach for socializing Black children's social emotional skills, it is essential to understand patterns of parental socialization that occur within the Black population.

LPA of Parenting for Socializing Social Emotional Skills

LPA is a person-centered methodological technique for identifying underlying typologies of behavior in which individuals may be clustered based on response patterns on multiple indicator variables (Collins & Lanza, 2010). LPA has been performed in African American, Latinx, and Asian American families to generate typologies of parenting (Anton et al., 2015; Ayón et al., 2015; Carpenter & Mendez, 2013; Doyle et al., 2017; Kim et al., 2013; Lin & Li, 2019; McWayne et al., 2018; Roche et al., 2019; Smalls, 2010; Zhang et al., 2019; Zhang et al., 2017). However, many of these studies

were focused exclusively on parenting profiles and not on associations of profiles with child outcomes. Moreover, within group studies that consider associations between profiles and developmental outcomes largely address adjustment outcomes of adolescents (Doyle et al., 2017; Kim et al., 2013).

In a latent profile analysis of African American mothers, parenting profiles emerged of Cross-Domain Competence (least authoritarian parenting and spanking, most involvement, warmth, cognitive stimulation, authoritative parenting), High Emotional Resources/Autonomous (high self-efficacy, low depressive symptoms), No Nonsense (most authoritarian parenting, low warmth), Uninvolved (limited involvement in cognitively stimulating or educational activities), and Vulnerable (limited coping and emotional resources). When considering variation amongst profiles in children's behavior problems, mothers with the Cross-Domain Competence profile had children who demonstrated lower behavior problems in fall of preschool than children of Uninvolved parents. On the other hand, Vulnerable mothers had children with more behavior problems in spring of preschool than children of High Emotional Resources/Autonomous, No-Nonsense, or Cross-Domain Competence parents (Carpenter & Mendez, 2013). Similar patterns were found in another study of the relation between parenting profiles of African American single mothers and problem behaviors (Anton et al., 2015).

An additional study addressed profiles of parenting in low-income, young Latinx and African American mothers (Zhang et al., 2019). Ultimately, mothers with Sensitive/Stimulating and Warm/Unstimulating profiles were adaptive for infants' socioemotional development and diminished problem behaviors, while mothers with

Disengaged profiles were maladaptive for infants' social emotional skills. However, indicators for latent profiles did not include other components of parent-child relationships that are significant for early childhood and socialization of social emotional skills, such as attachment styles. Furthermore, studies did not comprehensively consider parenting styles, attitudes, and attachment styles as indicators of parenting profiles relevant for social emotional skills in Black families. Importantly, social emotional outcomes primarily addressed behavior problems (Carpenter & Mendez, 2013), and should be expanded to include social emotional assets.

The Present Study

Children must develop social emotional skills to excel in the school environment (Blair & Razza, 2007; Bohlmann & Downer, 2016; Garner & Waajid, 2012; Harvey & Miller, 2017; Rimm-Kaufman et al., 2009). The development of social emotional skills for school requires parental socialization of social emotional skills in early childhood (Ainsworth, 2015; Baumrind, 1971; Bronson, 2000; Calkins et al., 1998; Karreman et al., 2006; Kuczynski & Kochanska, 1995). In order to promote social emotional development in ethnically diverse families, it is essential to expand upon understanding of parental socialization of social emotional skills to examine the practices of Black families, with attention to adaptive approaches in sociocultural context. This study builds on research documenting Black family socialization (Anton et al., 2015; Caughy et al., 2002; Carpenter & Mendez, 2013; Cooper, et al., 2015; Doyle et al., 2017; Dunbar et al., 2017; Rice et al., 1997; Rouland et al., 2014), and contributes to this literature by taking a person-centered approach to identifying profiles of parenting practices for socializing social emotional skills in Black families.

An aim of the current study is to build a within group understanding of Black parental socialization of social emotional skills that comprehensively addresses parenting attitudes informing parenting styles of interaction with children, parenting behaviors in parent-child interactions, as well as attachment relationships between parent and child. Testing within group variation in Black families will assess whether the parenting elements and levels of parenting elements that traditionally define the positive parenting typology present as similar or unique typologies in Black families. Ultimately, the different patterns that emerge will inform unique, Black parenting typologies. Moreover, generating typologies of parenting within Black families will capture a more accurate depiction of parental socialization practices exercised by Black families in a range of sociocultural contexts. Much of the research has been conducted in single-parent, single-mother families, so it is important to consider variation in specific parenting profiles that emerge based on the presence of a father or father figure. Therefore, in the present study, we investigate *RQ1) Which typologies of parental socialization practices emerge in a Black sample of families? and RQ2) How are typologies predictive of social emotional skills in Black children? (See Figure 1).*

Hypotheses. We hypothesize that typologies of parental socialization that have traditionally been considered adaptive parenting behaviors, attachment, and attitudes may emerge. Typologies will feature a combination of high sensitivity, positive regard, cognitive stimulation, secure attachment, and authoritative attitudes (McWayne et al., 2018; Zhang et al., 2019). Similarly, typologies of parental socialization traditionally considered maladaptive parenting behaviors, attachment, and attitudes may emerge. This profile will feature low levels of sensitivity, cognitive stimulation, and authoritative

attitudes, insecure attachment, and high levels of harsh discipline. However, based on previous literature on African American and Black families, profiles may emerge featuring the following combinations: (1) high positive regard, sensitivity, and control (higher levels of discipline) (Brody & Flor, 1998; McGroder, 2000; Zhang et al., 2019); (2) high warmth and positive regard but low levels of cognitive stimulation (McGroder, 2000; Zhang et al., 2019); and (3) high levels of physical discipline.

Once typologies of socialization practices are identified for Black families, it is possible to assess the relevance of parenting typologies for children's social emotional skills. We suspect that parenting typologies involving parenting behaviors of high authoritativeness, high cognitive stimulation, high sensitivity and high positive regard may be associated with higher preschool social emotional skills overall (Anton et al., 2015; Carpenter & Mendez, 2013; Zhang et al., 2019). Conversely, profiles with low levels of cognitive stimulation, sensitivity, and positive regard will be associated with lower social emotional skills (McGroder, 2000; Zhang et al., 2019).

Method

Participants

Participants in the study will include a subsample of children identified by race as Black or African American (M_{age} = 24.6 mos, SD = 1.5) from the 2-year data collection wave of the Early Childhood Longitudinal Study, Birth Cohort (ECLS-B: N = 1,750). The ECLS-B was a longitudinal study of children's development in the home and school environments from age 9-months until kindergarten. The longitudinal study consisted of components such as the computer-assisted parent interview, home observations of parents and children, and direct assessments of children's developmental competencies.

Sampling for the ECLS-B featured a multistage, stratified, clustered design involving sampling of birth certificates out of national primary sampling units containing multiple counties (National Center for Education Statistics, ECLS-B Sample Design, Weights, Variance, and Missing Data). The study consisted of 4 waves of data collection at the focal child age of about 9-months-old, 2-years-old, preschool age of 4-years old, and when children were in kindergarten. The current study focuses on the 2-year data collection wave which occurred from 2003-04 and the 4 years old/preschool data collection wave, which occurred from 2005-06. At the 2-year wave, the average age of the overall ECLS-B sample was 24.6 months. For Black families at the 2-year data collection wave, the response rate for the parent computer-assisted parent interview (CAPI) instrument was 90.2 % (weighted) (Nord et al., 2006).

Key Variables

Indicators for latent profiles. Parenting behaviors, parenting attitudes, and attachment style measured at the 2-year data collection wave of the ECLS-B served as the indicators for latent profiles of Black parenting.

Parenting behavior. Parenting behaviors used to socialize social emotional skills were measured via video recording of parent-child interactions during the Two Bags Task. The Two Bags Task is a modified version of the Three Bags Task previously utilized in the National Institute of Child Health and Human Development (NICHD) Early Child Care Study (Najarian et al., 2010). The Two Bags Task is a semi-structured play task in which researchers administered one bag with a plate set and another bag with a picture book to parent child dyads. Parenting behaviors from the Two Bags Task have been used in previous studies to verify models of parenting and school readiness in Black

families (Iruka et al., 2012; Bocknek et al., 2009). Furthermore, observational measures of parenting behavior based on the NICHD parenting measures have been developed in a sample of African American and Latinx mothers and infants (Zhang et al., 2019), which included scales for intrusiveness, flatness, detachment, negative regard, positive regard, stimulation of development, sensitivity/responsiveness to non-distress, and mother speech to infant (Zhang et al., 2019). Dyads were provided with directions to play for 10 minutes with the items in each bag. Parents were rated on the following scales on a range of *very low* (1) to *very high* (7): Detachment, Intrusiveness, Negative regard, Positive regard, Sensitivity, and Stimulation of cognitive development (Andreassen & Fletcher, 2007). Reliability measured as percent rater agreement was high for all scales (Detachment: 99.0%; Intrusiveness: 98.0%; Negative regard: 98.0%; Positive regard: 93.0%; Sensitivity: 97.0%; Cognitive stimulation: 94.0%; (Andreassen & Fletcher, 2007)). Detachment, Intrusiveness, and Negative regard were all severely skewed such that the vast majority of parents were rated as performing these behaviors at the lowest frequency, so I was unable to transform the variables. Therefore, the parenting behaviors indicators included in the profiles were: Sensitivity, Positive regard, and Stimulation of cognitive development. I also include parent reports of frequency spanking per week in the CAPI as an indicator of harsh disciplinary parenting practices.

Parenting attitudes. Parents also reported on attitudes and beliefs pertaining to authoritarian and authoritative parenting styles. In the parent interview, parents rated the following statements from *Exactly like* (1) to *Not at all like* (5): “I teach my {child/children} that misbehavior or breaking the rules will always be punished one way or another; I do not allow my {child/children} to get angry with me”. These statements

were included as items in a composite for authoritarian attitudes. The third statement, "I express my affection by hugging, kissing, and holding my {child/children}" (National Center for Education Statistics, 2-Year Parent Questionnaire, n.d., p. 55), was included as part of a composite for authoritative attitudes. In response to the prompt regarding how parents would respond to child's outbreak of anger in the form of throwing a tantrum, hitting, or yelling, parents selected from a series of behaviors to the prompt. Responses of talking to the child about what the child did wrong, having the child take a time out, making the child apologize, taking away a privilege, and giving a warning were also included in the composite for authoritative attitudes ($\alpha = .66$; National Center for Education Statistics, 2-Year Parent Questionnaire, n.d., p.55). Higher composite scores are indicative of higher identification with authoritative attitudes. After finding that the hypothesized authoritarian items had low interitem reliability, I performed an exploratory factor analysis to assess the validity of the authoritative and authoritarian items. While the above authoritative items regarding parents' response to child's anger loaded onto one factor, the authoritarian items loaded onto two, two item factors, each of which still had low interitem reliability. Therefore, I did not include an authoritarian attitude composite in analyses. The authoritativeness composite score was incorporated as the indicator of parenting attitudes in the latent profile model.

Attachment style. Parental attachment style was assessed by administering the Toddler Attachment Sort (TAS-45), a modified, shorter version of the Attachment Q-Sort (Andreassen & Fletcher, 2007). The TAS-45 was designed to capture the attachment relationship established between 7 months and 2-years-old (Andreassen & Fletcher, 2007). Measurement development was led by an attachment research expert who

performed multidimensional scaling and facet cluster analysis on international Q-Sort datasets to determine the set of items, which were then field tested in order to arrive at the final 45 items (Andreassen & Fletcher, 2007). Drawing from home visit observations of the home environment as well as the completion of the Bayley Short Form—Research Edition, ECLS-B field interviewers sorted 45 cards that described specific child behaviors into one of two piles: "rarely or hardly ever applies [to the focal child]" and "almost always applies [to the focal child]". Importantly, card sort behaviors were used to construct a continuous dependency score and a security score on a range of -1 to 1, which informed the classification score for the type of attachment (secure, avoidant, insecure, disorganized; Andreassen & Fletcher, 2007; Mulligan & Flanagan, 2006; Nord et al., 2006). The security score applies to attachment security, such that the greater the proximity to 1, the greater the extent the child treated the parent as a secure base for exploration and consolation. The dependency score pertains to the clinginess of the child to the parent, and that the greater proximity to 1, the greater the dependency of the child (Andreassen & Fletcher, 2007). The dependency and security scores were used as continuous indicators for latent profile analysis.

Social emotional outcomes. Social emotional outcomes included parent-reported social emotional skills, and observational scores of children's socioemotional skills measured at the preschool data collection wave (See Figure 1).

Parent-reported socioemotional skills. Variable composites were constructed based on parent reports on children's cognitive regulation, interpersonal skills, and behavior problems in the preschool data collection wave. The items from the social emotional battery of the parent interview were derived primarily from the Preschool and

Kindergarten Behavior Scales, with some original items and items from the Social Skills Rating System included to supplement the battery (Najarian et al., 2010). The PKBS has been validated in a sample of Black families, for which a confirmatory factor analysis revealed that seven out of eight subscales had either good or adequate fit (Edwards et al., 2003).

Cognitive regulation. On a frequency scale from *never* (1) to *very often* (5), parents rated children on frequency of the following behaviors in the previous 3 months: "Shows eagerness to learn new things, Volunteers to help other children complete tasks, Pays attention well, and works or plays independently (without the need for adult direction)" (National Center for Education Statistics, ECLS-B Preschool Parent Interview, n.d., p.26). I created a variable composite of five items ($\alpha = .73$) as an outcome variable, such that a higher score on the composite indicated a higher frequency of children's cognitive regulation behaviors (Aratani, White, & Cooper, 2011).

Social and interpersonal skills. On a frequency scale from *always* (1) to *not at all* (5) or *never* (1) to *very often* (5), parents rated children on behaviors such as : "Speaks clearly so strangers understand; Refers to {himself/herself} as I; Is able to get the attention of the listener; Uses appropriate social greetings; Is a good listener; Waits {his/her} turn to speak" (National Center for Education Statistics, ECLS-B Preschool National Study: Parent Interview, n.d., p.25). I reverse scored items scaled from (1) *always* to (5) *not at all* and created a composite of fifteen items ($\alpha = .85$) as an outcome variable, such that a higher composite score indicated higher frequency of children's social and interpersonal skills.

Behavior problems. Parents also rated children on emotional processes involved in behavior problems such as "Child is physically aggressive, Child acts impulsively, Child is overly active, and Child has temper tantrums" on a scale of *never* (1) to *very often* (5) (National Center for Education Statistics, ECLS-B Preschool National Study: Parent Interview, n.d.). A composite of nine items was created ($\alpha = .77$) as an outcome variable, such that a higher composite score indicated higher frequency of behavior problems.

Observational score of socioemotional skills. Observational scores of focal child's socioemotional skills were also taken as part of the Two-Bags Task in the preschool data collection wave. Observers rated children on a scale from *very low* (1) to *very high* (7) on the following behaviors: Child quality of play, Child negativity toward parent, and Child engagement of parent (Aratani et al., 2011; Najarian et al., 2010). Child engagement of parent was assessed based on the degree to which children started and perpetuated interactions with parents as well as the degree of positive affect and enthusiasm exhibited by children. Child quality of play consisted of criteria such as attention and engagement with objects, and the level of sophistication and autonomy with which children interacted with objects. Child negativity toward the parent was a measure of children's demonstration of aversion or aggression and anger aimed at the parent (Nord et al., 2006). Average percent rater agreement for each scale was at or above 90 percent (Najarian et al., 2010). The three child scales were used as outcome variables.

Covariates. In the study, I also included covariates and auxiliary variables (in the case of RQ2) for poverty status (0 = at or above 185% of poverty threshold, 1=below 185% of poverty threshold), primary language spoken at home (0 = speaks language

other than English at home; 1 = speaks English at home), foreign born parent status (0 = born in United States; 1 = foreign born/born in U.S. territories), father presence (0 = no resident father; 1 = birth father/father-figure), and parental education (0 = below college, 1=some college/above). Although I examined paternal involvement variables and parental well-being as potential covariates, there were insufficient data to support inclusion in the models. In summary, covariates included in the RQ1 latent profile classification model are: foreign born parent status, poverty status, and parental education. The covariates included in the RQ2 structural equation model are: foreign born parent status, primary language spoken at home, poverty status, parental education, and father presence.

Analytical Strategy

RQ1: Which typologies of parental socialization practices emerge in a Black sample of families? To address RQ1, I conducted LPA, a person-centered approach (Ansari, 2017; Collins & Lanza, 2010) to investigate how Black parents would be grouped based on patterns of parental socialization practices. I performed analyses using multinomial logistic regression performed via the gsem, lclass command in Stata 15 (StataCorp, 2017), clustering standard errors for household ID. The indicators for latent profiles of Black parental socialization practices were parenting behaviors, attachment style, and parenting attitudes. In the process of model identification, I raised the number of classes until model fit no longer optimized. I ran the model with 50 random starts and 50 iterations (Ansari, 2017; Collins & Lanza, 2010; Doyle et al., 2017). I also examined the log-likelihood values generated by 10 sets of random starts, and they generated the

same maximum likelihood value, suggesting that the model did not converge at a local maxima solution.

Model fit was assessed using the following model identification criteria: the Bayesian Information Criterion (BIC), the Akaike Information Criterion (AIC), and entropy (Ansari, 2017; Collins & Lanza, 2010; Schechter, November, 2017). Indicators of good model fit are lower BIC and AIC, and an entropy level greater than or equal to .7 (Ansari, 2017; Collins & Lanza, 2010). I also selected the number of profiles based on the meaningfulness of the Black parenting typologies, which was informed by the previous literature and hypotheses on Black parenting and social emotional development. After selecting the best fitting model for identification of latent profiles, the covariates, foreign born parent status, poverty status, and parental education, were entered simultaneously into the model as predictors of class membership. Fit statistics were also assessed for the model including covariates.

Missing data. On latent profile indicators such as Sensitivity, Positive regard, and Cognitive stimulation, 29.2 % of observations were incomplete. On frequency spanking, 10.0 % of observations were incomplete. On the security and dependency indicators, 12.9% of observations were incomplete. Lastly, on the authoritativeness indicator, 9.8 % of observations were incomplete. The latent profile classification model handles missing data with equationwise deletion and a maximum likelihood algorithm which often allows for greater use of observations than structural equation modeling in Stata (Stata, n.d.)[5].

[5] The gsem Stata command, required for conducting LPA in Stata, does not support the use of FIML. Additionally, multiple imputation is incompatible with the analytical objective of identifying within group variation that is characteristic of LPA (Collins & Lanza, 2010).

RQ2: How are typologies predictive of social emotional skills in Black children? For RQ2, I tested the degree to which the profiles predicted preschool social emotional outcomes such as parent-reported cognitive regulation, social and interpersonal skills, and behavior problems, and observational scores of child engagement of parent, child quality of play, and child negativity toward parent. One conventional method for assessing associations between profile membership and distal outcomes is to define profile membership as an observed variable, which could lead to inaccurate estimations, particularly if there is high misclassification error or poor separation of profiles (Bray, April, 2015). However, I investigated the entropy and accuracy of classification for the latent profile model prior to using this approach in order to validate use of profile membership as an observed variable. Given that profile separation exceeded the appropriate threshold, the profile membership variable was then incorporated as a predictor in a structural equation model predicting social emotional outcomes. Structural equation modeling was run with clustered standard errors for household ID. In order to compare the association with preschool social emotional outcomes between all profiles, we ran five different models, each with a different profile set as the reference group. Covariance terms were included for observed social emotional outcomes and for parent-reported social emotional outcomes. Covariates (foreign born parent status, primary language spoken at home, poverty status, parental education, and father presence) were also entered into RQ2 structural equation models of the association between predicted profile membership and preschool social emotional outcomes.

Missing data. On the child engagement of parent outcome, 31.7% of observations were missing. On the child negativity toward parent outcome, 31.6 % of observations

were incomplete, and 31.8 % of observations were incomplete for the child quality of play outcome. For the cognitive regulation, social skills, and behavior problems outcomes, 20.9, 21.1, and 20.8 % of observations were incomplete respectively. Missing data were addressed using full information maximum likelihood, which relies on available observations to estimate parameters based on the assumption that data is missing at random (Enders & Bandalos, 2001). Primary language spoken at home and foreign born parent status were included as auxiliary variables in the model.

Results

Descriptive Statistics

See Table 1 for demographics on the complete sample of Black families and descriptive statistics on parenting profile indicators and children's social emotional skills. The majority of families were below 185 % of the poverty threshold, with parental education below college and no resident father. In terms of covariates concerning immigration, most families had a U.S. born parent and spoke primarily English at home. When focal children were about 2 years old, Black parents were rated between 3 and 4 on average on a scale of 1 to 7, meaning that they demonstrated moderate levels of positive regard, sensitivity, and cognitive stimulation. Parents engaged in some consistent spanking, spanking the child on average twice per week. In terms of authoritative attitudes, parents scored between 2 and 3 on average in a range of 0 to 5, meaning that they expressed moderate levels of authoritativeness. Lastly, attachment relationships between Black children and families were scored moderately on security (score was closer to 0 on scale of -1 to 1) and dependency (score was closer to 0 on a scale of -1 to 1; See Table 1).

Latent Profile Analysis (RQ1)

For, I examined *RQ1) which typologies of parental socialization practices emerge in a Black sample of families?* using latent profile analysis.

LPA revealed a five profile model that was selected based on the lowest AIC and BIC, highest entropy level, and meaningfulness of profiles (See Table 2 for fit statistics). The entropy began to decline for the six-profile solution, and over extraction of profiles also seemed more likely. In presenting the results of the latent profile analyses, I provide characteristics of the profiles such as the expected proportion of Black families in each profile, the estimated average levels of indicators in the profiles, and demographic characteristics describing families in each profile.

- Profile 1 (8.6%), *High Multidimensional Support*, featured the highest average sensitivity, positive regard, cognitive stimulation, authoritativeness, and attachment security across profiles, below average attachment dependency, and the lowest average spanking across profiles.
- Profile 2 (40.9%), *Average Multidimensional Support*, featured above average levels of sensitivity, positive regard, cognitive stimulation, authoritativeness, and security, average dependency, and below average spanking.
- Profile 3 (17.1%), *Authoritative Low Support*, was characterized by the lowest levels of sensitivity, positive regard, and cognitive stimulation across profiles, above average levels of authoritativeness, below average attachment security, average dependency, and above average spanking.
- Profile 4 (7.3% of the sample), *Dependent Physical Discipline*, was characterized by below average sensitivity, positive regard, and cognitive

stimulation, the lowest average levels of authoritativeness and attachment security across all profiles, and the highest levels of attachment dependency and spanking frequency per week across profiles.

- Profile 5 (26.0%), *Low Support High Security*, was characterized by below average sensitivity, positive regard, and cognitive stimulation, above average authoritativeness and attachment security, the lowest level of attachment dependency across profiles, and above average spanking. See Table 3 for marginal predicted means of indicators for each profile and pairwise comparisons of mean indicator levels between profiles. See Figure 2 for a graph of mean indicator levels across profiles.

Associations Between Black Parenting Profiles and Black Children's Social Emotional Outcomes (RQ2)

I examined *RQ2) how are typologies predictive of social emotional skills in Black children?* by running a structural equation model in which profile membership predicted preschool social emotional outcomes. See Tables 4.1 through 4.5 for results for each model with either Profile 1,2,3,4, or 5 as the omitted reference group. For each model, I present standardized beta coefficients.

Child engagement of parent. Compared to children of parents in the Authoritative Low Support Profile, children of parents in the Average Multidimensional Support Profile and the Low Support High Security Profile had higher levels of engagement, respectively (β = .15, S.E. = .04, p = .001; β = .13, S.E. = .05, p < .01). Compared to children of parents in the High Multidimensional Support Profile, children of parents in the Authoritative Low Support Profile had lower engagement (β = -.12, S.E.

= .05, p = .01). Therefore, the Average and High Multidimensional Support profiles were positively associated with children's engagement of parent in preschool, while the Authoritative Low Support profile was negatively associated with children's engagement.

Quality of play. Compared to children of parents in the Dependent Physical Discipline Profile, children of parents in the High Multidimensional Support Profile had higher levels of quality of play (β = .10, S.E. = .04, p < .05). Compared to children of parents in the Authoritative Low Support Profile, children of parents in the Average Multidimensional Support Profile had higher quality of play (β =.13, S.E. = .04, p < .01). Compared to children of parents in the High Multidimensional Support Profile, children of parents in the Authoritative Low Support Profile and the Low Support High Security Profile had lower quality of play, respectively (β = -.17, S.E. = .05, p < .001; β = -.19, S.E. = .06, p < .01). Compared to children of parents in the Low Support High Security Profile, children of parents in the Average Multidimensional Support Profile demonstrated greater quality of play (β = .07, S.E. = .03, p < .05). In summary, the Average and High Multidimensional Support were associated positively with quality of play in preschool, while the Dependent Physical Discipline, the Authoritative Low Support profile, and the Low Support High Security were associated negatively with quality of play in preschool.

Negativity toward parent. Compared to children of parents in the Authoritative Low Support Profile, children of parents in the Average Multidimensional Support Profile and the Low Support High Security Profile had lower negativity toward the parent, respectively (β = -.12, S.E. = .05, p < .05; β = -.13, S.E. = .05, p < .05). Compared to children of parents in the High Multidimensional Support Profile, children

of parents in the Authoritative Low Support Profile had higher negativity toward parent (β = .10, S.E. = .04, p < .05). Overall, the Average and High Multidimensional Support profiles were negatively associated with children's negativity toward the parent, whereas Authoritative Low Support was associated positively with negativity toward the parent in preschool.

Cognitive regulation. Black parenting profiles did not significantly predict cognitive regulation, indicating that there are no differences between the profiles in the association with cognitive regulation in preschool.

Social and interpersonal skills. Compared to children of parents in the Average Multidimensional Support Profile, children of parents in the Low Support High Security Profile exhibited lower social skills (β = -.08, S.E. = .03, p < .05). Compared to children of parents in the Authoritative Low Support Profile, children of parents in the Average Multidimensional Support Profile had higher social skills (β = .11, S.E. = .04, p < .01). Compared to children of parents in the High Multidimensional Support Profile, children of parents in the Authoritative Low Support Profile and the Low Support High Security Profile had lower social skills, respectively (β = -.14, S.E. = .04, p = .001;β = -.16, S.E. = .05, p < .01). Ultimately, the Average and High Multidimensional Support profiles were positively associated with social skills in preschool, while the Low Support High Security and Authoritative Low Support profiles were negatively associated with children's social skills in preschool.

Behavior problems. Compared to children of parents in the Dependent Physical Discipline Profile, children of parents in the High Multidimensional Support Profile had lower levels of behavior problems (β = -.12, S.E. = .03, p < .001). Compared to children

of parents in the High Multidimensional Support Profile, children of parents in the Average Multidimensional Support Profile had greater behavior problems (β = .17, S.E. = .04, p < .001). Compared to children of parents in the High Multidimensional Support Profile, children of parents in the Authoritative Low Support Profile and Low Support High Security Profile had greater behavior problems, respectively (β = .18, S.E. = .04, p < .001; β = .21, S.E. = .05, p < .001). Thus, the High Multidimensional Support Profile was negatively associated with behavior problems, while the Dependent Physical Discipline, Authoritative Low Support, and Low Support High Security profiles were positively associated with behavior problems.

Discussion

As a departure from approaches to studying parenting that problematize Black parenting, I sought to portray a comprehensive representation of Black parenting typologies that may be pertinent to Black children's social emotional skills. In order to identify Black parenting typologies (RQ1), I implemented a person-centered approach of latent profile analysis on indicators of parenting behavior, parenting attitudes, and attachment relationships. The latent profile analysis revealed five latent profiles of parenting in Black families: High Multidimensional Support, Average Multidimensional Support, Authoritative Low Support, Dependent Physical Discipline, and Low Support High Security. Profiles were partially aligned with hypotheses, such that the High Multidimensional Support and Average Multidimensional Support Profiles captured comprehensive dimensions of supportive parental behaviors, while the low support profiles were more nuanced. Parenting interventions targeting early childhood social emotional skills in Black families might develop and utilize measures of the novel

parenting profiles identified, with attention to the within group variation in the supportive parenting behaviors, attachment, and parenting attitudes that co-occur.

To assess the association between Black parenting typologies and Black children's social emotional outcomes (RQ2), I ran structural equation models with profiles predicting social emotional outcomes in preschool. Findings for RQ2 partially confirmed hypotheses regarding associations of profiles with preschool social emotional outcomes. Though significant associations were found between profiles and subtypes of social emotional skills such as social and interpersonal skills and emotional processes, significant associations did not emerge between profiles and cognitive regulation skills.

RQ1: Latent Profiles of Black Parenting

The latent profile model supported a five-profile solution in which the Average Multidimensional Support profile was most prevalent, followed by the Low Support High Security profile, the Authoritative Low Support Profile, the High Multidimensional Support profile, and the least prevalent Dependent Physical Discipline profile.

High Multidimensional Support profile. The identification of the High Multidimensional Support profile supported hypotheses of a combination of high sensitivity, positive regard, cognitive stimulation, secure attachment, and authoritative attitudes. Additionally, this profile is consistent with much of previous research highlighting the role of comprehensive parental supports such as cognitive stimulation, positive regard, and sensitivity in early childhood within Black families (Carpenter & Mendez, 2013; McWayne et al., 2018; Zhang et al., 2019). These supportive parenting behaviors seem to be jointly adaptive in serving as settings for early childhood development in Black families.

Average Multidimensional Support profile. Though not explicitly identified in hypotheses, the Average Multidimensional Support profile reinforces the importance of supportive parenting behaviors typically associated with positive parenting. The Average Multidimensional Support profile is reminiscent of previously identified Black parenting profiles such as that of Average Positive Parenting (McWayne et al., 2018; Zhang et al., 2019). Though not demonstrated at high levels, average levels of these parenting inputs may still be protective in Black or African American families.

Dependent Physical Discipline profile. The Dependent Physical Discipline Profile was somewhat aligned with hypotheses regarding the emergence of a Black parenting profile featuring insecure attachment and high levels of harsh discipline. Though few previous studies address attachment in investigating parenting typologies, the finding is partially aligned with the Disciplinarian Latino Parenting profile characterized by less parental involvement and high discipline (Ayón et al., 2015). It could be that parent-child attachment relationships with greater dependency may also use more physical disciplinary practices either as an illustration of harsh parenting or stress in the parent-child relationship (Ayón et al., 2015).

Authoritative Low Support profile. The finding of the Authoritative Low Support profile was partially aligned with hypotheses regarding profiles featuring high levels of warmth and control. Though the authoritativeness indicator implicates parents' use of warmth and positive control, the current study lacks an available measure of authoritarian parenting or negative control due to issues of skewness and reliability. Therefore, it is not clear whether parents in this profile also demonstrated negative control and authoritarian parenting attitudes. The low support component of the

Authoritative Low Support Black parenting profile is similar to those which emerged in previous studies, such as the Low Positive Parenting, Low Behavioral Guidance profile (McWayne et al., 2018) and the Disengaged (low positive regard, negative regard, sensitivity, cognitive stimulation, speech; high flatness, detachment) profile (Zhang et al., 2019). However, the above average level of authoritative attitudes that occurs along with the low support levels and above average levels of physical discipline seem to be unique.

Low Support High Security profile. The Low Support, High Security profile represents an innovative finding in Black parenting in which the parent-child relationship is secure and yet parents are demonstrating low levels of supportive parenting behaviors. Therefore, these parents may be able to maintain an attachment relationship with the child that allows for protection and exploration (Ainsworth, 2015; Baumrind, 1971) but not parenting behaviors that may further stimulate the child's development.

Overview of RQ1 findings. Altogether, the profiles found suggest that the pursuit of a more comprehensive representation of Black parenting reveals the true variety of typologies in which elements of parenting co-occur. In accordance with conventional typologies of parenting (Ainsworth, 2015; Baumrind, 1971; Mesman et al., 2012; Karreman et al., 2006; McLoyd & Steinberg, 1998; Meléndez, 2005), supportive parenting behaviors and attitudes (and conversely low levels of supportive parenting behaviors), lower frequency of physical disciplinary practices (conversely higher frequencies of physical discipline) and secure attachment (or conversely dependency) occur together in profiles capturing a majority of the sample as in the case of the High Multidimensional Support, Average Multidimensional Support, and to some extent the Dependent Physical Discipline profiles. However, profiles that may be specific to Black

families reveal that authoritative parenting attitudes may co-occur with low levels of supportive behavior, and high security can also co-occur with low levels of supportive behavior. Thus, findings should compel researchers and program developers of parenting interventions and education to address the diversity of Black parenting typologies that occur in their homes, acknowledging that Black families may exercise certain profiles as an adaptive cultural approach to parenting within their sociocultural context (Coll et al., 1996).

RQ2: Associations Between Black Parenting Profiles and Black Children's Social Emotional Outcomes (RQ2)

Prior research has taken a narrow focus on parenting among low-income Black populations and as well as a narrow focus on outcomes, emphasizing development of problem behaviors in Black children. In an effort to consider the relevance of Black parenting profiles for a range of critical social emotional skills, I tested the associations between Black parenting profiles and Black children's preschool social emotional outcomes such as child engagement of the parent, quality of play, negativity toward parent, social and interpersonal skills, cognitive regulation, and behavior problems. Analyses of associations between Black parenting profiles and children's social emotional outcomes reveal the positive implications of the High Multidimensional and Average Multidimensional Support Profiles for Black children's social emotional outcomes in preschool (Carpenter & Mendez, 2013; McWayne et al., 2018). Conversely, the Authoritative Low Support profile may have the most negative implications for preschool social emotional outcomes in Black or African American children, even after controlling for contextual covariates.

Child engagement of parent. The High and Average Multidimensional Support profiles seem to be most beneficial for child engagement relative to other profiles. This pattern is similar to prior work that established a positive association between supportive parenting and children's mastery motivation, which is an important characteristic of engagement (Zhang et al., 2019). While both the Authoritative Low Support profile and the Low Support High Security profiles were negatively associated with child engagement, the Authoritative Low Support profile may have the most negative repercussions for child engagement. Therefore, in a parenting setting in which supportive parenting behaviors are low, having a secure attachment relationship may be adaptive for children to interact positively and in meaningful ways with their parent (Ainsworth, 2015; Rice et al., 1997). Notably, the Low Support High Security profile was significantly higher on sensitivity, positive regard, and cognitive stimulation than the Authoritative Low Support profile, speaking to the role of supportive parenting overall. Since Black parenting is often studied in contexts of developmental risk, this study makes an important contribution by highlighting the variability in Black parenting and drawing attention to the ways in which many of these typologies contribute to the positive development of social emotional skills among Black children.

Quality of play. The High and Average Multidimensional Support profiles appear to be adaptive for children's quality of play relative to other profiles. However, Authoritative Low Support, Low Support High Security, and Dependent Physical Discipline were all associated with lower quality of play relative to the High and Average Multidimensional Support profiles. The findings suggest that parenting settings either characterized by low support or less secure attachment with harsh parenting practices

seem to be especially maladaptive for the ability of children to maintain attention and exercise autonomy in play, as well as engage in more sophisticated manner of play. These findings are aligned with prior studies, which reveal that positive parenting profiles in Caribbean immigrant families contributed to more play interactions (McWayne et al., 2018). Importantly, findings pertaining to supportive parenting profiles and quality of play present additional evidence of Black parenting typologies linked to positive child development.

Negativity toward parent. Consistent with previous findings, the High and Average Multidimensional Support Profiles seemed to be adaptive for children's negativity toward the parent compared to other profiles. Both the Authoritative Low Support profile and the Low Support High Security profile were linked with greater negativity toward the parent. However, the Authoritative Low Support profile may be most maladaptive for negativity toward the parent. Findings are aligned with previous evidence linking the Uninvolved parenting profile with more aggression in fall of preschool relatively to Cross-Domain Competence parenting and linking the Cross-Domain Competence profile with less aggression in spring of preschool relative to the Vulnerable parenting profile (Carpenter & Mendez, 2013). Previous research also suggests that disengaged parenting and permissive parenting clusters characterized by either less control or less warmth and control both contributed to greater externalizing behavior than authoritative parenting (Anton et al., 2015). In a more secure attachment relationship, the child may interact more positively and favorably toward the parent rather than with aggression or anger (Ainsworth, 2015, Rice et al., 1997).

Cognitive regulation. The lack of significant associations that emerged between Black parenting profiles and cognitive regulation in preschool run in contrast to the hypotheses and previous literature framing authoritative parenting attitudes, supportive parenting behaviors, and secure attachment as adaptive for cognitive regulation in Black families (Authors, under review; Mesman et al., 2012; LeCuyer & Swanson, 2017). Although some of the parenting indicators used in the current study may capture elements of parenting relevant for cognitive regulation, it is possible that more comprehensive assessment of autonomy support (Bernier et al., 2010), goal orientation, or motivation (Grolnick & Farkas, 2002) is required. In fact, there is evidence that Black parents may cultivate cognitive regulation skills as a precursor for other social emotional competencies such as social and interpersonal skills and emotional processes (Brody & Flor, 1998). This suggests that our lack of findings related to cognitive regulation may be due to measurement rather than to the absence of an association between parenting and cognitive regulation.

Social and interpersonal skills. In contrast to the High and Average Multidimensional Support Profiles, which were demonstrated to be adaptive for children's social and interpersonal skills, the Low Support High Security and the Authoritative Low Support Profiles appeared to be harmful for children's social and interpersonal skills. Unsupportive parenting settings may prevent the child from developing the skills to cooperate in social situations, regardless of authoritative parenting attitudes or secure attachment relationships. Yet, it is important to note that 49.5% of Black children experience High and Average Multidimensional Support profiles characterized by high or average levels of cognitively stimulating, positive, and

sensitive parenting behaviors that support the development of social skills (Authors, under review; Davidov & Grusec, 2006; Mesman et al., 2012).

Behavior problems. Though the Average and High Multidimensional Support profiles were both protective against behavior problems, the Dependent Physical Discipline, Authoritative Low Support, and Low Support High Security profiles were all linked to greater behavior problems. The Dependent Physical Discipline, Authoritative Low Support, and Low Support High Security profiles may be aligned with profiles previously identified in the literature, specifically the Uninvolved and Vulnerable parenting profiles (Carpenter & Mendez, 2013), the disengaged profile (Anton et al., 2015; Zhang et al., 2019), and the permissive profiles (Anton et al., 2015), which were associated with more risky behaviors. In parent child interactions characterized by a lack of supportive parenting behaviors or a less secure attachment relationship and greater physical discipline, children may be exposed to family conflict or stress, contributing to the child being poorly equipped to regulate emotions and behavior (Conger et al., 2002). In contrast, parents who interact with children with more positive regard, cognitive stimulation, and sensitivity are able to model and scaffold children with expectations for behavior and strategies for regulating behavior, contributing to fewer behavior problems in children (Eisenberg et al., 2005; Grolnick & Ryan, 1989; von Suchodoletz et al., 2011).

Limitations and Future Directions

By employing the person-centered approach of latent profile analysis in a large subsample of Black families, the current study illustrates the full complexity of parenting typologies implemented in Black families. Findings lend themselves to recommendations

for practice, such that program theory and design of social emotional interventions serving Black children must be responsive to the parenting typologies that Black families are already implementing. The current analysis relied on secondary data that utilized measures of parenting developed primarily based on a White middle-class frame. Although the present analysis highlights the diversity of Black parenting even using these measures, future work should incorporate constructs developed specifically for Black families (Tamis-LeMonda et al., 2008). The current study suggests that more diverse attachment relationships and use of physical discipline may reflect an adaptation to the unique sociocultural context of Black families. Therefore, studies of Black families should be centered on developing and implementing measures of attachment specifically in Black families. For example, previous literature has identified no nonsense parenting as a form of exercising control in the interest of the child's well-being (Brody & Flor, 1998), so future studies might develop and implement measures of this parenting style. Importantly, though the literature addresses use of control in Black families, I was unable to include measures of intrusiveness due to skewness. Furthermore, I was unable to include the composite for authoritarian parenting attitudes due to low reliability and validity. Therefore, it may be informative for future studies of Black parenting to investigate and develop measures for forms of control specific to Black families.

Moreover, though the current dataset included a father and non-resident father questionnaire, response rates were too low to allow for analysis using these variables. The parenting indicators utilized to develop the latent profiles were largely completed by mothers. Therefore, maternal behaviors, attitudes, and attachment relationships serve as proxies for parenting, overshadowing the specific contribution of fathers. Future research

should consider typologies of parenting based on traditional parenting behaviors reported by fathers and parenting behaviors that may be specific to fathers. An additional limitation in the current study were a lack of available data on parent reports of well-being. Overall, these limitations are indicative of the need to prioritize sampling of Black fathers when conducting research on Black families (Tamis-LeMonda et al., 2008) as well as oversampling of Black families when collecting nationally representative data. Furthermore, attention is needed to reduce stigma that may be attributed to reporting on psychological well-being (Alvidrez et al., 2008).

In assessing the associations between Black parenting profiles and Black children's preschool social emotional outcomes, I was able to use the classify-analyze approach due to the high separation of the profiles. However, the software used for latent profile analyses raised limitations for utilizing current three-step approaches to assessing associations between profiles and distal outcomes (Huang et al., 2017). In addition, Black parenting profiles based on existing measures of elements of parenting did not appear to predict Black children's cognitive regulation in preschool. Therefore, when distinguishing which profiles of Black parenting are promotive or maladaptive for development in Black children, future research should aim to capture those parenting behaviors, attitudes, and attachment relationships that are directly relevant for all domains of early childhood social emotional skills including emotional processes, cognitive regulation, and social and interpersonal skills. For example, the ECLS-B dataset did not include measures of racial socialization and cultural pride, both important factors in parenting of Black youth (Caughy et al., 2002; Dunbar et al., 2017; Elmore & Gaylord-Harden, 2013; McWayne et al., 2018; Rouland et al., 2014). Drawing from the

literature on Black youth development, racial socialization or cultural pride could be a means through which Black parents prepare young children to navigate social situations and cope with emotional distress. Further research should consider how racial socialization unfolds in the family in early childhood (Anderson et al., 2015; Hughes et al., 2006). Future studies might also model pathways in which parenting typologies drive development of cognitive regulation as a precursor for other social emotional skills.

Conclusion

The parenting behaviors, attitudes, and attachment relationships established as formative for children's social emotional development only supply a fragment of understanding of parenting because they are based on an ideal of Whiteness. The incomplete picture of parenting calls for a more representative understanding of parenting in Black families, which accommodates diverse combinations of elements of parenting as adaptive cultural approaches to socializing social emotional skills. In the present study, I investigate parenting typologies within a large sample of Black families using the person-centered approach of latent profile analysis, and I explore the associations between Black parenting profiles and Black children's social emotional outcomes in preschool. I find that Black parents demonstrate a variety of parenting profiles reflecting broadly supportive parenting behaviors (High Multidimensional Support, Average Multidimensional Support), insecure attachment along with physical discipline (Dependent Physical Discipline), and either authoritative attitudes or secure attachment along with low support (Authoritative Low Support, Low Support High Security). While the Low Support High Security profile presented some advantage over the Authoritative Low Support profile for social emotional outcomes, the Average and High

Multidimensional Support Black parenting profiles were consistently associated with higher preschool social emotional outcomes than other profiles. Therefore, latent profile analyses reveal diversity in Black parenting that should inform social emotional interventions targeting diverse children and families. Furthermore, associations between profiles and social emotional outcomes contribute to greater understanding of the approaches Black families take in cultivating social emotional skills in their toddlers, which may be driven by sociocultural context.

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Table 1
Descriptive statistics of demographics and latent profile indicator variables

Demographics	%	**Range**
Poverty status	65.8	(0 = at or above 185% of poverty threshold, 1=below 185% of poverty threshold)
Parental education	36.7	(0 = below college, 1=some college/above)
Presence of birth father/father figure	41.2	(0 = no resident father; 1 = birth father/father-figure),
Foreign born parent status	7.4	(0 = born in United States; 1 = foreign born/born in U.S. territories)
Primary language spoken at home	87.3	(0 = speaks language other than English at home; 1 = speaks English at home),
Parenting Behaviors/Practices	***M(SD)***	
(1) Very low – (7) Very high		
Sensitivity	4.37(.95)	1-7
Positive Regard	3.94(1.10)	
Cognitive Stimulation	3.87(.94)	
Frequency Spanking (past week; Range: 0-50)	2.08(3.49)	0-50
Parenting Attitudes		
Authoritativeness	2.56(1.55)	0-5
Attachment Score		
Dependency Score	-.16(.32)	-0.88 – 0.89
Security Score	.38(.40)	-0.86 – 1.00
Social Emotional Outcomes		
Child engagement of parent	4.22(.90)	1-7
Child negativity toward parent	1.38(.79)	
Child quality of play	3.78(.84)	
Cognitive regulation	18.66(3.31)	5-25
Social and interpersonal skills	58.43(8.22)	18-74
Behavior problems	21.10(5.50)	9-41

SOURCE: U.S. Department of Education, National Center for Education Statistics, ECLS-B 9 month-Kindergarten 2007 Restricted-Use Data File.
Note. Means rounded to hundredth place.
9 Descriptive statistics of latent profile indicator variables

Table 2
Fit statistics for one to four/five profile solution (without covariates)

Number of Profiles	Log Likelihood	AIC	BIC	Entropy
One	-11231.79	22491.58	22562.61	_
Two	-10817.37	21678.75	21790.36	.73
Three	-10698.56	21457.13	21609.33	.77
Four	-10616.06	21308.12	21500.91	.75
Five	-10292.62	20677.24	20910.61	.96
Six	-10278.59	20665.17	20939.13	.77

SOURCE: U.S. Department of Education, National Center for Education Statistics, ECLS-B Longitudinal 9 month-Kindergarten 2007 Restricted-Use Data File. Fit statistics have been rounded to two decimal places.
10 Fit statistics for one to four/five profile solution (without covariates)

Table 3
Marginal predicted means of latent profile indicators

	Profile 1: HMS	Profile 2: AMS	Profile 3: ALS	Profile 4: DPD	Profile 5: LSHS	Pairwise Test
Sensitivity	6.01(.01)	5.00(.00)	2.78(.03)	4.00(.00)	4.00(.00)	1>2*** 1,5>3*** 1,2>4*** 5<1*** 5<2*** 3<2,4***
Positive Regard	5.20(.07)	4.31(.04)	3.00(.06)	3.49(.14)	3.72(.06)	1>2*** 1,5>3*** 1,2>4*** 5<1*** 3,5<2*** 3<4**
Cognitive Stimulation	4.88(.09)	4.18(.04)	3.05(.06)	3.58(.10)	3.68(.04)	1>2*** 1,5>3*** 1,2>4*** 5<1*** 3,5<2*** 3<4***
Authoritativeness	2.77(.15)	2.73(.07)	2.61(.11)	2.28(.21)	2.64(.10)	
Security	.55(.03)	.45(.02)	.27(.03)	.01(.05)	.45(.02)	1,5>3*** 1,2,3,5>4*** 3<2***
Dependency	-.19(.03)	-.16(.01)	-.16(.02)	.30(.04)	-.27(.02)	5<2,3*** 1,2,3,5<4***
Spanking Frequency	1.44(.37)	2.06(.16)	2.09(.23)	2.87(.65)	2.42(.23)	

Notes. Standard errors are presented in parentheses. Means are rounded to two decimal places.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Early ECLS-B Longitudinal 9 month-Kindergarten 2007 Restricted-Use Data File.
HMS: High Multidimensional Support; AMS: Average Multidimensional Support; ALS: Authoritative Low Support; DPD: Dependent Physical Discipline; LSHS: Low Support High Security
Means and standard errors rounded to hundredth place.
11 Marginal predicted means of latent profile indicators

Table Legend

Highest above average
Above average
Average
Below average
Lowest, below average

Table 4.1
Association between Black parenting profiles and social emotional outcomes, controlling for Profile 1

	Preschool Social Emotional Outcome											
	Engagement		**Play quality**		**Negativity**		**Cognitive regulation**		**Social skills**		**Behavior problems**	
	β	(S.E.)	β	(S.E.)	β	(S.E.)	β	(S.E.)	β	(S.E.)	β	(S.E.)
Profile 2: AMS	-0.02	(0.06)	-0.10	(0.06)	0.02	(0.04)	-0.03	(0.05)	-0.08	(0.05)	0.17[1]	(0.04)
Profile 3: ALS	-0.12[2]	(0.05)	-0.17[1]	(0.05)	0.10[3]	(0.04)	-0.08	(0.04)	-0.14[1]	(0.04)	0.18[1]	(0.04)
Profile 4: DPD	-0.05	(0.04)	-0.09[3]	(0.04)	0.04	(0.03)	-0.01	(0.03)	-0.04	(0.03)	0.11[1]	(0.03)
Profile 5: LSHS	-0.06	(0.06)	-0.19[2]	(0.06)	0.03	(0.05)	-0.10	(0.05)	-0.16[2]	(0.05)	0.21[1]	(0.05)
Covariates												
Foreign born parent status	-0.09[3]	(0.04)	-0.04	(0.04)	0.03	(0.04)	0.04	(0.03)	0.02	(0.03)	-0.02	(0.03)
English primary home language	0.02	(0.04)	0.02	(0.04)	0.04	(0.04)	0.04	(0.04)	-0.01	(0.03)	0.00	(0.04)
Below 185% of the poverty line	-0.04	(0.03)	-0.12[1]	(0.03)	0.02	(0.03)	-0.14[1]	(0.03)	-0.15[1]	(0.03)	0.03	(0.03)
Highest parental education some college or above	0.16[1]	(0.03)	0.10[2]	(0.03)	-0.02	(0.03)	0.06[3]	(0.03)	0.04	(0.03)	-0.06[3]	(0.03)
Presence of father/father figure	0.01	(0.03)	-0.01	(0.03)	0.01	(0.03)	-0.01	(0.03)	-0.02	(0.03)	0.01	(0.03)
_cons	4.66[1]	(0.31)	4.87[3]	(0.26)	1.40[1]	(0.25)	5.73[1]	(0.27)	7.66[1]	(0.31)	3.46[1]	(0.25)

SOURCE: U.S. Department of Education, National Center for Education Statistics, ECLS-B 9 month-Kindergarten 2007 Restricted-Use Data File.
[1] indicates significance at $p<=.001$ level; [2]indicates significance at $p<=.01$ level ; [3]indicates significance at $p<=.05$ level
HMS: High Multidimensional Support; AMS: Average Multidimensional Support; ALS: Authoritative Low Support; DPD: Dependent Physical Discipline; LSHS: Low Support High Security

Table 4.2
Association between Black parenting profiles and social emotional outcomes, controlling for Profile 2

	Preschool Social Emotional Outcome											
	Engagement		**Play quality**		**Negativity**		**Cognitive regulation**		**Social skills**		**Behavior problems**	
	β	(S.E.)	β	(S.E.)	β	(S.E.)	β	(S.E.)	β	(S.E.)	β	(S.E.)
Profile 1:												
HMS	0.01	(0.03)	0.05	(0.03)	-0.01	(0.02)	0.02	(0.03)	0.04	(0.03)	-0.09[1]	(0.02)
Profile 3:												
ALS	-0.11[1]	(0.03)	-0.10[2]	(0.03)	0.09[3]	(0.04)	-0.05	(0.03)	-0.08[2]	(0.03)	0.06	(0.03)
Profile 4:												
DPD	-0.04	(0.03)	-0.04	(0.03)	0.03	(0.03)	0.00	(0.03)	-0.01	(0.02)	0.03	(0.03)
Profile 5:												
LSHS	-0.03	(0.03)	-0.07[3]	(0.03)	0.00	(0.03)	-0.06	(0.03)	-0.08[3]	(0.03)	0.02	(0.03)
Covariates												
Foreign born parent status	-0.09[3]	(0.04)	-0.04	(0.04)	0.03	(0.04)	0.04	(0.03)	0.02	(0.03)	-0.02	(0.03)
English primary home language	0.02	(0.04)	0.02	(0.04)	0.04	(0.04)	0.04	(0.04)	-0.01	(0.03)	0.00	(0.04)
Below 185% of the poverty line	-0.04	(0.03)	-0.12[1]	(0.03)	0.02	(0.03)	-0.14[1]	(0.03)	-0.15[1]	(0.03)	0.03	(0.03)
Highest parental education some college or above	0.16[1]	(0.03)	0.10[2]	(0.03)	-0.02	(0.03)	0.06[3]	(0.03)	0.04	(0.03)	-0.06[3]	(0.03)
Presence of father/ father figure	0.01	(0.03)	-0.01	(0.03)	0.01	(0.03)	-0.01	(0.03)	-0.02	(0.03)	0.01	(0.03)
_cons	4.61[1]	(0.29)	4.63[1]	(0.25)	1.44[1]	(0.24)	5.65[1]	(0.26)	7.49[1]	(0.30)	3.84[1]	(0.24)

SOURCE: U.S. Department of Education, National Center for Education Statistics, ECLS-B 9 month-Kindergarten 2007 Restricted-Use Data File.
[1] indicates significance at $p<=.001$ level ; [2]indicates significance at $p<=.01$ level ; [3]indicates significance at $p<=.05$ level
HMS: High Multidimensional Support; AMS: Average Multidimensional Support; ALS: Authoritative Low Support; DPD: Dependent Physical Discipline; LSHS: Low Support High Security

Table 4.3
Associations between Black parenting profiles and social emotional outcomes, controlling for Profile 3

	Preschool Social Emotional Outcome											
	Engagement		**Play quality**		**Negativity**		**Cognitive regulation**		**Social skills**		**Behavior problems**	
	β	(S.E.)	β	(S.E.)	β	(S.E.)	β	(S.E.)	β	(S.E.)	β	(S.E.)
Profile 1:												
HMS	0.09[2]	(0.03)	0.13[1]	(0.03)	-0.07[3]	(0.03)	0.06	(0.03)	0.10[1]	(0.03)	-0.13[1]	(0.03)
Profile 2:												
AMS	0.15[1]	(0.04)	0.13[2]	(0.04)	-0.12[3]	(0.05)	0.08	(0.04)	0.11[2]	(0.04)	-0.08	(0.04)
Profile 4:												
DPD	0.03	(0.03)	0.02	(0.03)	-0.02	(0.03)	0.04	(0.03)	0.05	(0.03)	-0.01	(0.03)
Profile 5:												
LSHS	0.13[2]	(0.05)	0.08	(0.05)	-0.13[3]	(0.05)	0.03	(0.04)	0.05	(0.05)	-0.07	(0.05)
Covariates												
Foreign born parent status	-0.09[3]	(0.04)	-0.04	(0.04)	0.03	(0.04)	0.04	(0.03)	0.02	(0.03)	-0.02	(0.03)
English primary home language	0.02	(0.04)	0.02	(0.04)	0.04	(0.04)	0.04	(0.04)	-0.01	(0.03)	0.00	(0.04)
Below 185% of the poverty line	-0.04	(0.03)	-0.12[1]	(0.03)	0.02	(0.03)	-0.14[1]	(0.03)	-0.15[1]	(0.03)	0.03	(0.03)
Highest parental education some college or above	0.16[1]	(0.03)	0.10[2]	(0.03)	-0.02	(0.03)	0.06[3]	(0.03)	0.04	(0.03)	-0.06[3]	(0.03)
Presence of father/ father figure	0.01	(0.03)	-0.01	(0.03)	0.01	(0.03)	-0.01	(0.03)	-0.02	(0.03)	0.01	(0.03)
_cons	4.28[1]	(0.30)	4.34[1]	(0.25)	1.71[1]	(0.24)	5.48[1]	(0.26)	7.23[1]	(0.31)	4.02[1]	(0.24)

SOURCE: U.S. Department of Education, National Center for Education Statistics, ECLS-B 9 month-Kindergarten 2007 Restricted-Use Data File.
[1] indicates significance at $p<=.001$ level; [2]indicates significance at $p<=.01$ level; [3]indicates significance at $p<=.05$ level
HMS: High Multidimensional Support; AMS: Average Multidimensional Support; ALS: Authoritative Low Support; DPD: Dependent Physical Discipline; LSHS: Low Support High Security

14 Associations between Black parenting profiles and social emotional outcomes, controlling for Profile 3

Table 4.4
Associations between Black parenting profiles and social emotional outcomes, controlling for Profile 4

	Preschool Social Emotional Outcome											
	Engagement		**Play quality**		**Negativity**		**Cognitive regulation**		**Social skills**		**Behavior problems**	
	β	(S.E.)	β	(S.E.)	β	(S.E.)	β	(S.E.)	β	(S.E.)	β	(S.E.)
Profile 1:												
HMS	0.05	(0.04)	0.1[1]	(0.04)	-0.05	(0.04)	0.02	(0.04)	0.05	(0.03)	-0.12[3]	(0.03)
Profile 2:												
AMS	0.08	(0.06)	0.09	(0.06)	-0.07	(0.06)	0.00	(0.06)	0.02	(0.05)	-0.06	(0.05)
Profile 3:												
ALS	-0.05	(0.05)	-0.03	(0.05)	0.04	(0.05)	-0.06	(0.05)	-0.07	(0.04)	0.02	(0.04)
Profile 5:												
LSHS	0.05	(0.07)	0.02	(0.07)	-0.07	(0.07)	-0.06	(0.06)	-0.06	(0.05)	-0.05	(0.06)
Covariates												
Foreign born parent status	-0.09[1]	(0.04)	-0.04	(0.04)	0.03	(0.04)	0.04	(0.03)	0.02	(0.03)	-0.02	(0.03)
English primary home language	0.02	(0.04)	0.02	(0.04)	0.04	(0.04)	0.04	(0.04)	-0.01	(0.03)	0	(0.04)
Below 185% of the poverty line	-0.04	(0.03)	-0.12[3]	(0.03)	0.02	(0.03)	-0.14[3]	(0.03)	-0.15[3]	(0.03)	0.03	(0.03)
Highest parental education some college or above	0.16[3]	(0.03)	0.1[2]	(0.03)	-0.02	(0.03)	0.06[1]	(0.03)	0.04	(0.03)	-0.06[1]	(0.03)
Presence of father/ father figure	0.01	(0.03)	-0.01	(0.03)	0.01	(0.03)	-0.01	(0.03)	-0.02	(0.03)	0.01	(0.03)
_cons	4.43[3]	(0.31)	4.44[3]	(0.27)	1.59[3]	(0.26)	5.66[3]	(0.27)	7.45[3]	(0.31)	3.98[3]	(0.26)

SOURCE: U.S. Department of Education, National Center for Education Statistics, ECLS-B 9 month-Kindergarten 2007 Restricted-Use Data File.
[1] indicates significance at $p<=.001$ level ; [2]indicates significance at $p<=.01$ level ; [3]indicates significance at $p<=.05$ level
HMS: High Multidimensional Support; AMS: Average Multidimensional Support; ALS: Authoritative Low Support; DPD: Dependent Physical Discipline; LSHS: Low Support High Security
15 Associations between Black parenting profiles and social emotional outcomes, controlling for Profile 4

Table 4.5
Associations between Black parenting profiles and social emotional outcomes, controlling for Profile 5

	Preschool Social Emotional Outcome											
	Engagement		**Play quality**		**Negativity**		**Cognitive regulation**		**Social skills**		**Behavior problems**	
	β	(S.E.)	β	(S.E.)	β	(S.E.)	β	(S.E.)	β	(S.E.)	β	(S.E.)
Profile 1: HMS	0.03	(0.03)	0.09[2]	(0.03)	-0.01	(0.02)	0.05	(0.03)	0.08[2]	(0.03)	-0.10[1]	(0.02)
Profile 2: AMS	0.03	(0.03)	0.07[3]	(0.03)	0.00	(0.03)	0.05	(0.03)	0.07[3]	(0.03)	-0.01	(0.03)
Profile 3: ALS	-0.08[2]	(0.03)	-0.05	(0.03)	0.08[3]	(0.04)	-0.02	(0.03)	-0.03	(0.03)	0.05	(0.03)
Profile 4: DPD	-0.02	(0.03)	-0.01	(0.03)	0.03	(0.03)	0.03	(0.03)	0.02	(0.02)	0.02	(0.03)
Covariates												
Foreign born parent status	-0.09[3]	(0.04)	-0.04	(0.04)	0.03	(0.04)	0.04	(0.03)	0.02	(0.03)	-0.02	(0.03)
English primary home language	0.02	(0.04)	0.02	(0.04)	0.04	(0.04)	0.04	(0.04)	-0.01	(0.03)	0.00	(0.04)
Below 185% of the poverty line	-0.04	(0.03)	-0.12[3]	(0.03)	0.02	(0.03)	-0.14[1]	(0.03)	-0.15[1]	(0.03)	0.03	(0.03)
Highest parental education some college or above	0.16[1]	(0.03)	0.10[2]	(0.03)	-0.02	(0.03)	0.06[3]	(0.03)	0.04	(0.03)	-0.06[3]	(0.03)
Presence of father/father figure	0.01	(0.03)	-0.01	(0.03)	0.01	(0.03)	-0.01	(0.03)	-0.02	(0.03)	0.01	(0.03)
_cons	4.54[1]	(0.29)	4.49[1]	(0.24)	1.45[1]	(0.23)	5.54[1]	(0.26)	7.34[1]	(0.31)	3.88[1]	(0.24)

SOURCE: U.S. Department of Education, National Center for Education Statistics, ECLS-B 9 month-Kindergarten 2007 Restricted-Use Data File.
[1] indicates significance at $p<=.001$ level; [2]indicates significance at $p<=.01$ level; [3]indicates significance at $p<=.05$ level
HMS: High Multidimensional Support; AMS: Average Multidimensional Support; ALS: Authoritative Low Support; DPD: Dependent Physical Discipline; LSHS: Low Support High Security

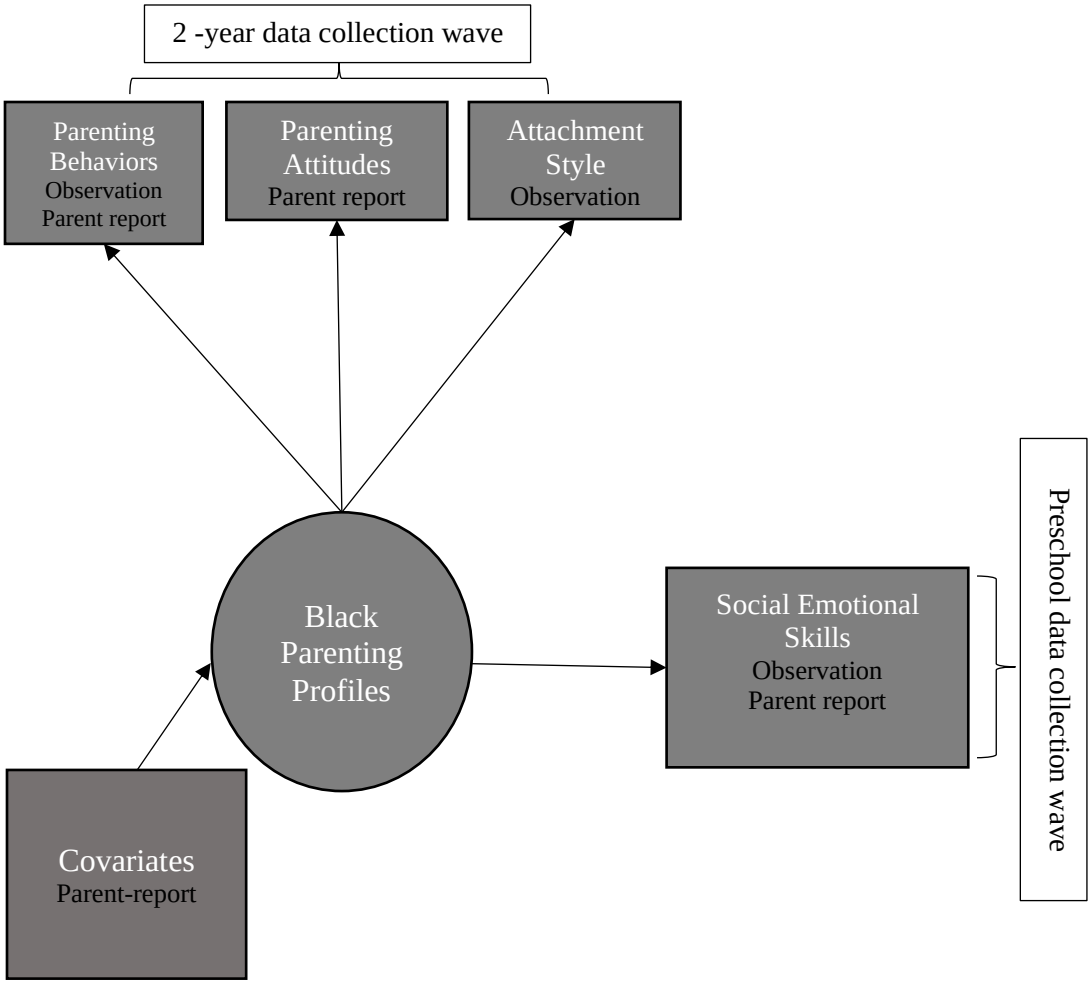

Figure 1. Conceptual model of latent profile analysis with Black families.
SOURCE: U.S. Department of Education, National Center for Education Statistics, ECLS-B 9 month-Kindergarten 2007 Restricted-Use Data File.
3 Conceptual model of latent profile analysis with Black families

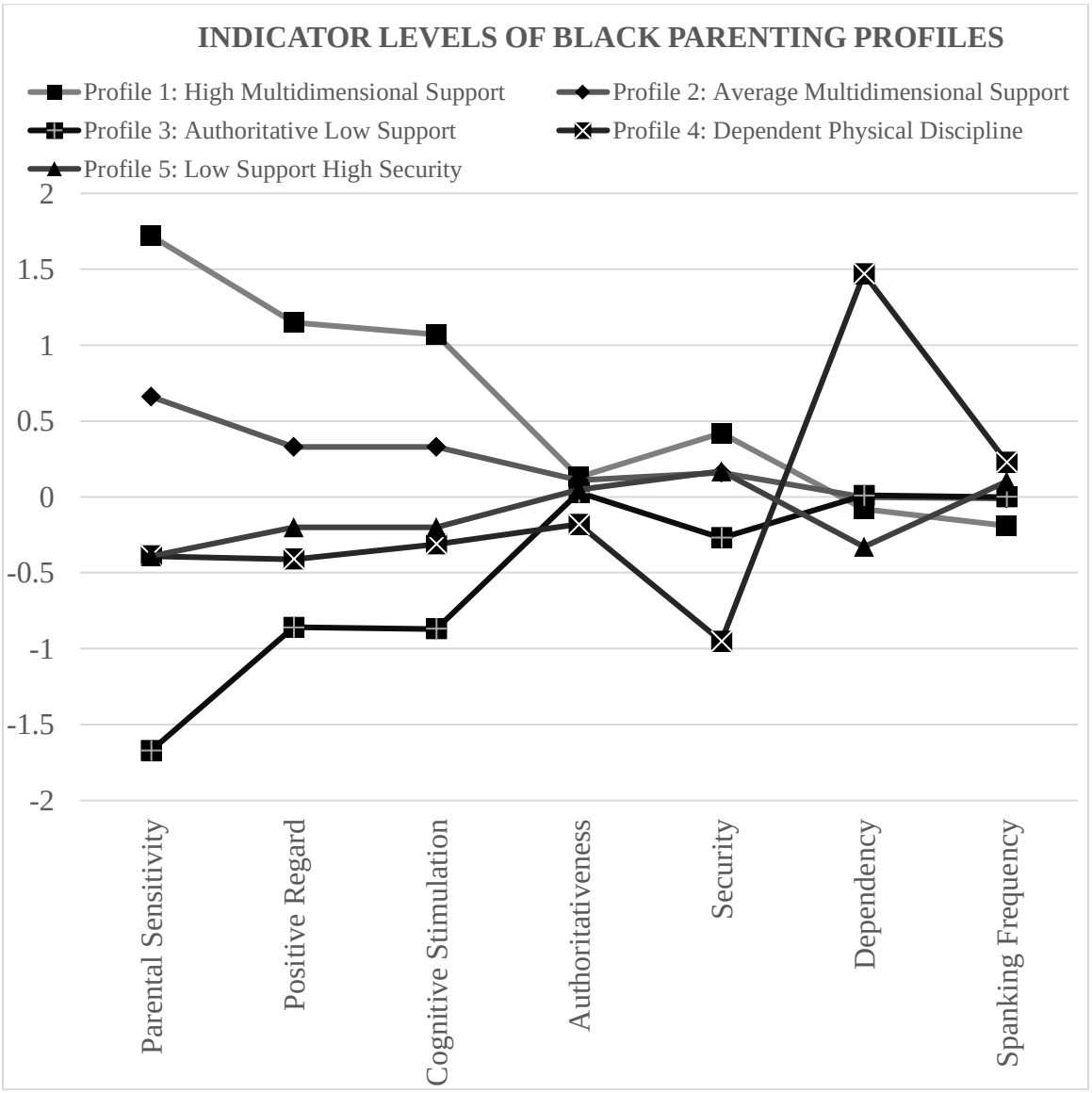

Figure 2. Predicted Profile Indicator Means for Each Black Parenting Profile.
Profile indicator measures have been standardized to be compared in the same figure.
SOURCE: U.S. Department of Education, National Center for Education Statistics, ECLS-B 9 month-Kindergarten 2007 Restricted-Use Data File.

4 Predicted Profile Indicator Means for Each Black Parenting Profile

Appendix A

Table 1a.
Additional descriptives on parenting attitudes and attachment.

Parenting Attitudes (National Center for Education Statistics, n.d.)	**Yes %**	
Authoritative Attitudes		
Discipline by talk to child about what child did wrong (1=yes)	76.5%	
Discipline by making child apologize (1=yes)	53.6%	
Discipline by taking away privilege (1=yes)	29.4%	
Discipline by having child take timeout (1=yes)	55.8%	
Discipline by giving child warning (1=yes)	41.2%	
Authoritativeness	2.56(1.55)	0-5
Attachment Classification Score		
Secure	51.8%	
Ambivalent	10.0%	
Avoidant	21.5%	
Disorganized	16.7%	

SOURCE: U.S. Department of Education, National Center for Education Statistics, ECLS-B 9 month-Kindergarten 2007 Restricted-Use Data File. Percentages may not sum to 100 due to rounding to the nearest tenth in compliance with license.

Appendix B: Supplementary Analyses

Method

After predicting the posterior probability of profile membership and classifying Black families into profiles based on the posterior probability, I examined the demographic characteristics of each profile including households with foreign-born parent status, primary language spoken at home, presence of a father or father figure, parental education, and poverty status.

Results

Demographic Comparisons of Profiles

The Authoritative Low Support profile had the highest percentage of foreign-born parents (10.9% of families in the profile), households below 185 % of the poverty threshold (81.2%), the highest percentage of parents with parental education level of below college (76.7%), and the highest percentage of households with no resident father (64.4%). The Low Support High Security profile had the highest percentage of parents who spoke a language other than English at home (4.7%). Given the reliance of Black families on kinship and religiosity (McWayne et al., 2018), I also inspected profiles for levels of social support and frequency attending religious services. Across profiles, there were extremely low levels of support reported from coworkers, friends, adult relatives, spouse's friends, or in-laws (less than 2%). Though between 16.8 and 27.7% of families in each profile had attended a religious service once a week in the past year, the High Multidimensional Support profile had the highest percentage of parents reporting this rate of attendance.

Interpretation of Profiles and Demographic Comparisons

High Multidimensional Support profile. Importantly, families who demonstrated the High Multidimensional Support parenting typology tended to be privileged in terms of acculturation, education level, the presence of a father or father figure, and more frequent attendance of a religious service. It could be that higher positive regard, sensitivity, and cognitive stimulation are more likely in Black families with a resident father in which there might be greater availability of coparenting or support in childrearing in the home. The availability of fathers for coparenting may be particularly relevant absent support from other relatives or kin (Lee et al., 2020; Parent et al., 2013; Simons et al., 2006).

Average Multidimensional Support Profile. Families classified into the Average Multidimensional Support profile tended to have slightly lower parental education and rates of presence of a father than the High Multidimensional Support Profile. Given the prevalence of this profile, it could be that many Black families are parenting in context that, like that of High Multidimensional Support families, is environmentally supportive relative to other profiles but characterized by somewhat less access to coparenting and socioeconomic resources.

Dependent Physical Discipline Profile. Families classified into the Dependent Physical Discipline Profile had a majority of families who were below 185 percent of the poverty line, parental education level of less than a college education, and families with no resident father. The combination of dependency, higher levels of control, and also less sensitivity could also be attributed to parenting in more stressful environments in the context of limited resources (Bakermans-Kranenburg et al., 2004; Brody & Flor, 1998; Harris & Graham, 2014; Iruka, 2017).

Authoritative Low Support Profile. Authoritative Low Support may be indicative of a Black parenting style combining warmth and control as an adaptive response to sociocultural context. Given that families classified into this profile had the highest percentage of parents with foreign-born parent status across profiles and the highest percentage of families below 185 percent of the poverty threshold, the highest percentage of parents with an education level of less than college, and the highest percentage of families with no resident father, the Authoritative Low Support parenting profile may represent a response to economic hardship, acculturation stress, and limited resources for coparenting (Lee et al., 2020; Mandara & Murray, 2002; Parent et al., 2013; Simons et al., 2006). Families in this profile also demonstrated the lowest percentage of attending a religious service once a week compared to other profiles, so this parenting profile may coincide with lower levels of religiosity or lower ability to access religiosity as a protective cultural practice (Mandara & Murray, 2002; McWayne et al., 2018).

Low Support High Security. Families classified into this profile had the highest percentage of parents who reported speaking a language other than English at home. Moreover, families were also majority below 185 percent of the poverty threshold, highest parental education of below college, and households with no resident father. Therefore, Low Support High Security parents may be functioning in the context of potential acculturation stress, low socioeconomic resources and less parental availability.

The efficacy of interventions in the environments in which Black families function requires addressing Black families' approaches to parenting in response to contextual demands (Coll et al., 1996). The supplementary analyses shed light on the structural factors that may lead to the differentiation of Black parenting profiles. Future

studies might elaborate on the specific mechanisms through which Black parenting typologies are differentiated, motivating Black families to adopt High or Average Multidimensional Support versus Authoritative Low Support profiles.