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Parenting and Children's Socioemotional and Academic Development among White, Latino, Asian, and Black families

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Parenting and Children’s Socioemotional and Academic Development among White, Latino, Asian, and Black families

DISSERTATION

Submitted in partial satisfaction of the requirements for the degree of

DOCTOR OF PHILOSOPHY

in Psychology and Social Behavior

by

Hannah S. Kang, M.A.

Dissertation Committee:
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Professor Ellen Greenberger
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2014
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ABSTRACT OF THE DISSERTATION

Parenting and Children’s Socioemotional and Academic Development among White, Latino, Asian, and Black families

By

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Doctor of Philosophy in Psychology and Social Behavior

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Professor Chuansheng Chen, Chair

A large body of research has demonstrated the crucial role of parenting in children’s socioemotional and academic development (Maccoby & Martin, 1983). This literature, however, has major limitations in the following three aspects: sample representativeness, consideration of cultural differences, and bidirectional effects of parenting and child behaviors. Using a nationally representative sample (N = 20,203) from the Early Childhood Longitudinal Study, Kindergarten Class of 1998-1999 (ECLS-K), the current study explored associations between three aspects of parenting (i.e., parental warmth, parental expectations, and corporal punishment) and child outcomes among White, Asian, Latino, and Black families. The study also examined bidirectional relationships between parenting dimensions and child outcomes across Kindergarten, 1st, 3rd, and 5th grades. The sample consisted of 58% White (N = 11,788), 16% Black (N = 3,224), 19% Latino (N = 3,826), and 7% Asian (N = 1,365) children. The mean age of the participants when they were in Kindergarten was 5.44 years, and gender was approximately evenly split (female = 49%, male = 51%). Cross-lagged analyses were conducted to examine bidirectional (longitudinal) associations between parenting dimensions and child
academic and socioemotional outcomes. Multiple group comparisons were used to test hypotheses about ethnic and developmental differences in those associations.

Results indicated that, for the total sample, positive parenting (parent warmth, positive parent evaluation, and not using corporal punishment) was associated with higher academic achievement and better socioemotional development both cross-sectionally and longitudinally.

There were significant ethnic differences in child outcomes and parenting measures. Asians and Whites showed better academic outcomes than Latinos, who in turn showed better academic outcomes than did Blacks. Asians also showed better socioemotional outcomes (i.e., fewer internalizing and externalizing problems) than Whites and Latinos, who in turn showed better socioemotional outcomes than did Blacks. In terms of parenting, White parents showed the highest level of warmth, Asian parents the highest level of expectations/evaluations, and Blacks the most frequent corporal punishment.

In terms of the associations between parenting and child outcomes, parental warmth was more important for the socioemotional outcomes of White and Black children than it was case for Asian and Latino children. Parental evaluation was generally more important for White students’ outcomes than for those of Blacks, Latinos, and Asians. One possible explanation for this result lies in cultural differences in parent-child communication patterns. For example, White parents have been found to be more likely than minority parents such as Asian Americans to communicate their expectations directly and verbally. Finally, corporal punishment was associated with negative outcomes to a greater extent for White students than for others. In fact, with one exception, the association between spanking and negative academic child outcomes was nonsignificant for Asians, suggesting that spanking may be culturally accepted among Asians by both the parents and the child.
Taken together, the findings indicated that it is important to consider the role of culture in parenting and children’s academic and socioemotional development.
Chapter 1
Introduction

A variety of childhood and parenting programs aimed at building children’s social competencies and academic readiness have been gaining popularity among policymakers and researchers (Duncan et al., 2007). The combination of children’s socioemotional and academic competence has been regarded as a critical determinant of their future school and social success. Socioemotional development involves acquiring a set of social and emotional skills critical to children’s wellbeing and adaptation in the school setting. Some key features of healthy socioemotional functioning include self-control, self-esteem, low levels of internalizing and externalizing behaviors, and the establishment of positive social relationships. Unfortunately, children who lag behind socially and emotionally have disadvantages that hinder their development. For example, children who are not able to manage their emotions may exhibit behavioral problems, such as antisocial (externalizing) and psychologically damaging (internalizing) behaviors (Warnes, Sheridan, Geske, & Warnes, 2005). Further, research shows that children who fall behind in their social and emotional development have difficulty interacting with teachers and peers and are often rejected by their peers (Warnes et al., 2005). Children who have difficulty controlling their emotions, paying attention in class, and fighting with their peers also have poorer school adjustment and lower academic achievement (Arnold et al., 1999; McClelland et al., 2000). Moreover, research suggests that children’s social and emotional problems persist over time and emerge in both the social and academic domains (Horn Atkins-Burnett, Karlin, Ramey & Snyder 2007). Children’s socioemotional competence is thus seen to have important implications for their well-being and throughout the rest of their school careers.
Similarly, the development of children’s cognitive and academic skills is critical to their school success. Children’s academic achievement-related behaviors, such as being able to follow and pay attention to teachers’ directions and cooperating in group work, are examples of some of the academic skills that are essential to their school success (Foulks & Morrow, 1989; Agostin & Bain, 1997). In a study by Alexander, Entwisle, and Dauber (1993), children’s positive academic performance was related to their interest and involvement in school activities and their ability to pay attention and focus. Other studies indicate the importance of academic skills in early childhood in setting the foundation for children’s school success in later years (Barnard, 2001; McClelland, Morrison, & Holmes, 2000; Stott, Green, & Francis, 1983). Furthermore, research suggests that learning problems are related to lower self-esteem and depression (Herman, Lambert, Ialongo, & Ostrander, 2007; Kellam, Brown, Rubin, & Ensminger, 1983). Herman and colleagues (2008) found that children who had low academic competence in first grade developed depressive symptoms in seventh grade. In sum, these findings describe the importance of children’s academic development in relation to other domains of their development, such that positive academic skills promote school success and overall well being.

A large body of research described the importance of parenting as being crucial to children’s socioemotional and academic development (Collins, Maccoby, Steingberg, Hetherington, & Bornstein, 2000; Parke & Buriel, 2006). Before children enter formal schooling, they begin to learn some of the socioemotional, cognitive, and behavioral skills necessary for school adjustment from their parents (Maccoby & Martin, 1983). Parents guide their children, provide feedback, and serve as models for academic and social behaviors (Hovespian, 2005). Barth and Parke (1993) found that positive parent-child interactions during physical play were associated with better school adjustment whereas controlling parents and resisting children showed negative school adjustment. Studies indicate that children’s academic success is
associated with how parents influence the development of children’s skills and attitudes toward school (Barth & Parke, 1993; Davis-Kean, 2005; Rutchick, Smyth, Lopoo, & Dusek, 2009). For example, using a national sample of Mexican Americans, Trusty and colleagues (2003) found that parents’ influences (educational expectations and involvement in school) toward their children in their early school years positively influenced children’s educational expectations six years later. Children also are taught to regulate their emotions by their parents (and others in their social environment), which is predictive of later social success (Olson, Bates, & Bayles, 1990; Rosenthal et al., 2006; Shaw & Gross, 2008). In sum, parenting plays an influential role in children’s overall development, particularly in the school setting.

Despite a large accumulation of studies related to the effects of parenting on children’s academic and socioemotional development, little is known about key parenting dimensions across different grade levels and from childhood to early adolescence. The majority of research has been conducted within specific life stages, thereby neglecting the importance of examining the nature of the changes in parenting that may be consequential for children’s academic and socioemotional development. In addition, with the increasing size of the minority population in the US, it is pertinent to examine the development of culturally diverse minority children. In order to develop a more encompassing picture of the various influences of parenting on academic and socioemotional development, this study extends previous literature by using contextual models of parenting dimensions and child outcomes across time. The specific aims of this study are three-fold: (1) to examine the longitudinal (bidirectional) associations between parenting dimensions and child outcomes across Kindergarten, 1st, 3rd, and 5th grades (2) to examine parenting dimensions and children’s academic and socioemotional outcomes among White, Asian, Latino, and Black families and (3) to examine developmental differences of bidirectional
effects between parenting dimensions and child outcomes among White, Asian, Latino, and Black families.

A more complete understanding of the range of parenting factors among these major ethnic groups and the bidirectional influence between parenting factors and children’s academic and socioemotional development will give direction to researchers and policymakers in their efforts to improve children’s school functioning and overall well-being.
Within developmental research, several theories have served as the base for understanding various parenting areas. The current study will focus on three major theories that seek to conceptualize three dimensions of parenting: 1) parental warmth, 2) parent discipline, and 3) parental expectations.

**Baumrind’s Parenting Style Theory**

A seminal theory in the parenting literature that was developed in the 1960s and continues to be influential is Diana Baumrind's theory of parenting styles. According to Baumrind’s theory, parenting styles can be conceptualized in terms of two important dimensions (1) *warmth*, which refers to parents’ emotional availability and responsiveness to the needs of the child and (2) control or *structure*, which refers to parents’ control, discipline, and expectations about the child. Based on these two dimensions, Baumrind (1967) proposed three basic child-rearing styles: authoritative, authoritarian, and permissive. The theory was later extended to include a fourth style, neglectful or uninvolved parenting (Maccoby & Martin, 1983). The authoritative style is characterized by high levels of both warmth and control. Authoritative parents are responsive and warm to their child while consistent and firm in their discipline. On the other hand, the authoritarian style is characterized by low levels of warmth and high levels of control. Authoritarian parents typically do not encourage discussion or autonomy and favor unbending, forceful and punitive disciplinary measures. The permissive parenting style is characterized by high levels of warmth and low levels of control. Although permissive parents are loving and responsive to their children’s needs, they are passive in their discipline and do not set firm boundaries. The remaining parenting style, neglectful, is characterized by low levels of
both warmth and control. Parents who fall under this category are uninvolved in their children’s lives and unresponsive to their children’s needs.

Extant literature has examined the effects of parenting styles on a vast array of developmental outcomes such as academic achievement, aggression, and substance abuse (Collins & Steinberg, 2006; Cramer, 2002; Hart, Nelson, Robinson, Olsen, & McNeilly-Choque, 1998; Hill, 1995; Lamborn, et al., 1991). Research on parenting styles and child outcomes indicates that authoritative parenting styles typically promote healthy child development and well-being whereas authoritarian and permissive parenting styles contribute to child maladjustment (Durkin, 1995). For example, children of authoritative parents get along with other children, tend to be self-reliant, academically successful, and have higher self-esteem (Collins & Steinberg, 2006; Hill, 1995; Ferrari & Olivette, 1993; Pettit, Dodge, & Brown, 1988). On the other hand, children of authoritarian parents may perform well academically and show higher levels of obedience, but they often tend to be depressed and withdrawn, have lower self-esteem, and are less socially competent (Baumrind, 1967; Lamborn Mounts, Steinberg, & Dornbusch, 1991; Pettit et al., 1988). Moreover, some children exposed to neglectful or harsh parenting display higher levels of externalizing behaviors and aggression (Gershoff, 2002; Patterson, 2002).

Similar to children from authoritarian homes, children reared in permissive homes also display negative developmental outcomes. Children of permissive parents often lack control and are more likely to be involved in problem behaviors such as school misconduct, delinquency, and drug abuse (Block, Block, & Keyes, 1988; Cohen & Rice, 1997; Lamborn et al., 1991). Children of neglectful parents also exhibit a wide range of psychological and behavioral dysfunctions but perhaps the most notable feature of these children is the disruption in parent and peer attachment relationships (Lamborn et al., 1991; Thompson, 1998). Neglected children have been reported to
have lower status and less satisfactory interactions with their peers (Coie, Dodge & Coppotelli, 1982; Newcomb, Bukowski, & Pattee, 1993). Recent studies have examined parenting styles dimensions (warmth and control) separately to see their unique contributions to children’s adjustment (Aunola & Nurmi, 2005; Galambo, Barker, & Almeida, 2003; Pettit & Laird, 2002). For example, Manzeske and Stright (2009) examined the relationship between parenting style dimensions, including warmth and behavioral and psychological control, and young adults’ emotion regulation. They found that children of mothers who were particularly high in psychological control, reported lower levels of emotion regulation.

Although Baumrind’s parenting style theory set the dominant framework in the field, several criticisms were raised against the theory. One criticism arose because of the inflexible typology of the parenting styles (Sternberg, 1994). Parenting styles may change over time, vary under different circumstances, and may differ for children within the same family (Grusec & Goodnow, 1994). Further, the generalizability of Baumrind’s parenting styles across diverse ethnicities and cultures pose a problem (Abell, Clawson, Washington, Bost, & Vaughn, 1996; Chao, 1995). Several studies, for example, have found differences in parenting styles and academic achievement across various ethnic groups (Park & Bauer, 2002; Steinberg et al., 1992). A study by Dornbusch, Ritter, Liederman, Roberts, and Fraleigh (1987) examined the effects of parenting styles and school grades among White, Latino, Asian, and Black adolescents and found that authoritative parenting positively influenced the grades of White students but was not strongly associated with academic achievement for Asian and Black students. Although Baumrind’s parenting styles were normative in describing European American families, they did not accurately describe the orientations and the effects of parenting behaviors in other cultures, such as Asian cultures (Chao, 1995; Leung et al., 1998). The aforementioned studies suggest that parenting behaviors and attitudes are more complex and may differ across a wide range of child
outcomes, contexts, and cultures, indicating the need to study parenting influences on children within the appropriate ethno-cultural context. Nonetheless, Baumrind’s conceptualization of parenting styles remains important in linking parenting styles to children’s social behavior and adjustment.

**Darling & Steinberg’s Contextual Model of Parenting**

To resolve the discrepancies of parenting styles across different cultures and contexts, Darling and Steinberg (1993) proposed a contextual model of parenting. In the model, they argued that the delineation of both parenting styles and parenting practices are critical. For example, although parents may not differ in their overall child-rearing styles, they may vary considerably in the practices they employ to socialize their children, e.g., to learn specific values and rules to follow and what constitutes appropriate behavior. As seen in the model below (Figure 1), there are three parenting characteristics that must be differentiated in order to understand the effects of each parenting aspect on child outcomes: (1) parental goals and values, (2) parenting practices, and (3) parenting styles. Along with adolescents’ willingness to be socialized, these three parenting styles have important adolescent outcomes. Although the model below describes adolescents’ outcomes, Darling & Steinberg’s Contextual Model of Parenting facilitates investigations of parenting and child outcomes across different developmental stages, such as childhood.

*Figure 1. Darling and Steinberg’s contextual model of parenting*
Parents’ socialization goals and values are important determinants of their parenting style and practices. Socialization goals consist of parents’ values and beliefs, and the aspirations that they hold for their children, which in turn, are expressed through parenting styles or practices. Socialization goals can include children’s acquisition of social behaviors and academic skills. Parenting practices refer to the specific behaviors parents use to attain their socialization goals. These practices are dependent on the specific domain of interest, such as academic achievement. Examples of parenting practices include monitoring children’s home and school activities and the use of disciplinary measures, such as spanking or withdrawal of privileges.

Parenting styles refer to the emotional context in which parents’ behaviors and attitudes are expressed or communicated to the child, such as body gestures and tone of voice. Parenting styles differ from parenting practices in that they are not domain specific and tend to occur across various situations. Unlike the direct influence of parenting practices on child outcomes, parenting styles indirectly influence child outcomes by moderating the association between parenting practices and child outcomes (Darling & Steinberg, 1993). Further, Darling and Steinberg’s contextual model highlighted the importance of examining the bidirectional process of parent-adolescent relationships, particularly the importance of adolescents’ willingness to be socialized by parents.

Aside from distinguishing the terms parenting styles and parenting practices, Darling and Steinberg (1993) also facilitated the examination of the variability of parental socialization goals, styles, and practices across different cultures and contexts. Researchers now recognize that the way in which parenting practices and behaviors are expressed may vary depending on the sociocultural context with which they occur (Spera, 2005; Steinberg, Lamborn, Darling, Mounts, & Dornbusch, 1994). For example, Chao (1995) demonstrated that cultural differences in child-rearing goals exist between Chinese and European American mothers. Compared to Chinese
mothers, European American mothers were more likely to report socialization goals that are considered individualistic, such as encouraging their children to be self-expressive. As an extension of Darling and Steinberg’s theory, other researchers sought to explain how the contrasting socialization goals of different cultures influence parenting. For example, Harwood and colleagues (1996) examined how Puerto Rican and Caucasian mothers’ different socialization goals influence parents’ perceptions of child behaviors. Results indicated that Puerto Rican mothers, who preferred socialization goals reflecting respect and obedience, and Caucasians mothers, who preferred socializations goals reflecting child independence, engaged in parenting strategies and behaviors reflective of their respective socialization goals. A more recent study by Spera (2006) examined the relationship between adolescents’ motivation and achievement and their perceptions of parental goals, practices, and styles using Darling and Steinberg’s parenting model. Results reveal that adolescents’ perceptions of parents’ educational values and aspirations for their children predicted parents’ school involvement and monitoring. In turn, their perceptions of parents’ school involvement predicted more interest and efforts to learn in school and higher academic self-regulation. Further, Black children reported that their parents held higher educational expectations for them than Caucasian and Hispanic students. In sum, Darling and Steinberg’s (1993) contextual model of parenting suggests that the relationship between child outcomes and parenting styles and parenting practices vary depending on context, thus extending our understanding of parent influence on children’s developmental outcomes.

**Wigfield and Eccles’ Parent Socialization Model**

Another important aspect of parenting that affects children’s developmental outcomes is parents’ expectations for their children. Several theories of the self suggest that other people’s appraisals and expectations influence one’s own self-concept and become a source for self-evaluation (Chen, Boucher, & Tapias 2006). Eccles-Parsons and her colleagues’ (1983)
expectancy-value theory of achievement motivation, and the more narrowly focused parent socialization model adapted from the achievement model, provides a broad theoretical framework for examining how parental expectations influence children’s expectations and values. According to the expectancy-value theory, children’s decision to engage and perform a given task is determined by the relative value and the expectancy of successful completion of the task. However, children’s expectancies and values are influenced by their perception of other peoples’ attitudes and expectations of them, culturally-based beliefs, and also by their experience of past achievement outcomes. Although many socializers, such as teachers and peers, serve to influence children’s values and expectations, parents are typically the primary socializers for children during childhood (Eccles, 1983; Jacobs, 1991). Eccles and colleagues thus proposed the theory of parent socialization shown in the Figure below.

![Figure 2. Eccles-Parsons’ parent socialization model (1983)](image)

The theory states that characteristics of the social context (family, neighborhood, and child) influence parents’ general beliefs as well as the specific beliefs they have about their child. These beliefs influence parental behaviors, which in turn, influence the child’s developmental outcomes. The theory also posits that although there is a causal relationship
between parents’ beliefs and child outcomes, children’s behaviors are also likely to influence parents’ beliefs, thus depicting a bidirectional influence between parental beliefs and children’s behavior. Eccles-Parsons and colleagues (1983) delineate four ways in which parents can shape their children: 1) by serving as a role model, 2) by providing specific experiences, 3) by creating a socioemotional environment for the child, and 4) by giving feedback and expectations for children’s abilities.

According to Eccles-Parson’s framework of parent expectations, children imitate and adopt observed behaviors and beliefs that provide important messages about parents’ attitudes and values about specific activities (Bandura, 1977; Eccles-Parsons, Adler, & Kaczala, 1982). For example, parents who read frequently are more likely to provide books and reading experiences for their children at home, thus fostering children’s early reading success and language acquisition (Scarborough & Dobrich, 1994; Senechal & LeFevre, 2002). Another way in which parents influence children is by providing specific experiences for the child. The way parents structure their children’s experiences provides or prevents them from having opportunities that impact the way children acquire skills, learn behaviors, and make decisions. Parents’ evaluations of their child, in turn, influence the opportunities they provide for their children. For example, parents may involve their child in sports activities based on assessments of their child’s interests and abilities in sports (Fredericks & Eccles, 2004), thus allowing the child to attain skills and competencies within the sports domain.

Eccles-Parson’s parenting theory also highlights how parents can influence their children through their general world beliefs and values (e.g., gender stereotypes) and the type of socioemotional environment they provide for their children. Parent’s emotional support and parent responsiveness are important indicators of positive growth in various domains of child development, such as academic achievement and self-esteem (Barber, Olson, & Shagle, 1994).
Parents’ general beliefs also influence children’s decision making and children’s beliefs about their own competence. For example, the gender stereotypes parents hold about math abilities are likely to influence children’s attitudes and self-perceptions in math, which may in part explain why girls report having lower concepts of math ability and are more likely to attribute math success to effort than to ability (Eccles, 1983; Eccles-Parsons, Adler, & Kaczala, 1982; Jacobs, 1991). Last, the expectations and perceptions parents hold of children’s abilities are crucial in child development. A considerable amount of research on parents’ expectations of children’s academic competence indicates that the ways in which parents interpret their child’s abilities can influence their child’s academic success and their attitudes toward school (Fan & Chen, 2001; Neuenschwander, Vida, Garret, & Eccles, 2007; Phillipson & Phillipson, 2007). For example, children of parents with high educational goals and expectations for their academic success and achievement were more likely to have higher educational goals and more positive attitudes and interests regarding school (Catsambis, 2001; Spera, 2006). Research has also consistently demonstrated that parental expectations for their children’s educational attainment predict children’s own expectations (Benner & Mistry, 2007; Jodl, Michael, Malanchuk, Eccles, & Sameroff, 2001). Broadly put, Eccles-Parson’s parent expectations theory suggests that children’s behaviors and developmental outcomes are influenced not only by their own experiences, but also by parents’ expectations of their socioemotional and academic functioning.

Taken together, these three theories provide an important framework and a more complete understanding of various dimensions of parenting and children’s socioemotional and academic functioning. Baumrind’s parenting theory highlights the role of parent warmth and control in relation to children’s developmental outcomes. Darling and Steinberg’s contextual perspective differentiates between parenting styles and parenting practices and how they are
linked to children’s well-being. Also highlighted in their framework is the role of culture as a context in moderating the links between parenting styles and practices and children’s outcomes. Eccles-Parson’s parenting expectations theory provides a basis for understanding how parent expectations can shape children’s socioemotional and academic outcomes. Each theory has identified crucial dimensions of parenting that influence child development: parental discipline, parental warmth, and parental expectations. Although the three theories are concerned with the same general question of how parenting can influence child development, one of the limitations of parenting literature is that each theory attempts to explain child outcomes using one theory of key parenting dimensions. A comprehensive model that includes all three of the theories described above may help researchers better understand how various parenting dimensions, taken together, may influence child development across different ethnic groups.

**Dimensions of parenting and their relation to children’s developmental outcomes**

*Parent discipline.* In the parenting literature, the word discipline has multiple meanings and implications that encompass a broad range of parenting behaviors. Discipline can be described as the methods parents use to induce children to behave appropriately, prevent misbehavior, and gain obedience from children (Smith, 1967). Disciplinary techniques can be divided into effective discipline and ineffective discipline. Effective discipline encourages appropriate behavior and discourages inappropriate behavior (Maccoby, 1992; Russell & Russell, 1987). Effective discipline includes methods such as inductive reasoning, where parents reason with and explain to their children why certain behavior is inappropriate or undesirable (Burleson, 1983). Conversely, ineffective discipline typically uses methods that reinforce noncompliant behaviors (Sansbury & Wahler, 1992). Ineffective discipline practices, including ignoring the child and using power assertive methods such as corporal punishment, have also been described as maladaptive (Sansbury & Wahler, 1992; Kochanska & Kim, 2012).
Effective parenting promotes positive child outcomes, such as prosocial behaviors, moral reasoning, and academic success (Carlo et al., 2010; Hoffman & Saltzteing, 1967; Krevans & Gibbs, 1996). Although ineffective discipline may achieve immediate compliance that is similar to the use of effective discipline, ineffective discipline (e.g., corporal punishment) has been implicated in negative behaviors like aggression and antisocial behaviors (Chang et al., 2003; Hoffman, 2000; Patterson, 1982).

Parent discipline and child academic outcomes. Studies have consistently shown that authoritative parents, who typically engage in effective disciplinary methods, foster children’s academic performance and achievement (Amato & Gilbreth, 1999; Baumrind, 1991; Reitman, Rhode, Hupp, & Altabello, 2002). For example, longitudinal research conducted by Pettit and colleagues (1997) showed that children’s 6th grade academic achievement was predicted by both inductive disciplinary methods and mothers’ involvement and interest in children’s peer activities. While studies establish the positive benefits of authoritative parenting, research on authoritarian parenting styles suggest that compared to authoritative parenting, authoritarian parenting is linked to negative school outcomes (Baumrind & Black, 1967; Jackson, Gyamfi, Brooks-Gunn, & Blake, 1998; Shumow, Vandell, & Posner, 1998). Other researchers, such as Lamborn and colleagues (1991), suggest that children of authoritarian parents perform well in school due to high levels of parental control and demands, but are likely to be less confident in their academic abilities. Further examination of specific discipline practices, such as power-assertive and harsh physical disciplinary methods, reveals them to be ineffective and detrimental to children’s academic outcomes (Arias & Pape, 1999; Straus & Paschall, 2003). Children whose parents are too controlling and intrusive tend to be less motivated and more disengaged from school tasks, which lead to lower academic achievement (Aunola & Nurmi 2005; Gonzales-DeHass, Willems, & Holbein, 2005; Kim & Mahoney, 2004). According to a longitudinal study
on parenting and school achievement, both parents and teachers reported a negative association between parents’ harsh discipline and children’s school adjustment and academic achievement, even after controlling for race and socioeconomic status (Shumow et al., 1998). Much of the research on harsh discipline has focused on a controversial form of discipline, corporal punishment. Although there is great variation in the severity and frequency in the use of corporal punishment, most studies indicate that this method is associated with negative child outcomes, such as poor academic adjustment and cognitive development (Gershoff, 2002; Smith et al., 2005).

*Parent discipline and child socioemotional outcomes.* Parent discipline has also been linked to social and emotional outcomes in children of all ages. Children of parents who employ inductive discipline strategies (e.g., explaining why misbehaviors are inappropriate), are generally more pro-social, self-confident, emotionally stable and have better interpersonal relationships (Eisenberg et al., 2004; Hart, DeWolf, Wozniak, & Burts, 1992; Ispa et al., 2004; Kochanska et al., 2005). For example, Denham and colleagues (2000) found that supportive parenting, wherein parents set clear rules and provide guidance, predicts fewer externalizing behaviors in children over a four-year period. Research has consistently demonstrated that children whose parents use restrictive and harsh disciplinary methods typically exhibit negative socioemotional outcomes and have poor peer relationships (Gershoff, 2002; Pettit, Clawson, Dodge, & Bates, 1996; Pfiffner, McBurnett, Rathouz, & Judice, 2005). Children who are rejected or viewed as unpopular among peers come from families whose parents often report engaging in harsh and authoritarian practices, including forceful and intrusive strategies (McDowell & Parke, 2000; Pettit, Clawson, Dodge, & Bates, 1996). Children of highly restrictive and controlling parents also report being socially withdrawn and depressed, and have low self-esteem, (Ispa et al., 2004; Rosenthal et al., 2006; Rubin & Burgess, 2002). Among of sample of 9-12 year old
Australian children, Jaffe and colleagues (2010) found that overprotective and intrusive parenting styles were related to children’s emotion suppression, an emotion regulation strategy associated with poorer well-being (Gross & John, 2003). Furthermore, ineffective disciplinary methods, such as the frequent use of harsh verbal coercion and corporal punishment, have been linked to maladaptive behavior problems such as aggression and hostility (Eisenberg & Valiente, 2002; Kochanska, Aksan, & Nichols, 2003; Rubin & Burgess, 2002). A recent study by Kochanska and Kim (2012) found that among insecure parent-child dyads, the use of power-assertive disciplinary methods predicted antisocial behaviors in toddlers three years later.

Parent expectations. Another way in which parents can influence child outcomes is through their expectations or beliefs about their children. These beliefs and expectations shape the children’s educational and social environment (Alexander & Entwisle, 1988; Klebanov & Brooks-Gunn, 1992). Parent expectations, in the form of high but realistic goals for their children, play an important role in fostering positive development (Eccles, Lord, Roeser, Barber, & Jozefowicz, 1997; Bronstein et al., 2004). In fact, studies have documented that parents’ expectations about their children’s competence are directly related to how children perceive themselves (Eccles, Jacobs, & Harold, 1990). Younger children, in particular, rely on parents’ evaluations of their performance in efforts to assess their own abilities and make judgments about their own competence (Hergovich, Sirsch, & Felinger, 2002). Parents’ evaluation, in turn, contributes to children’s self-perceptions of behaviors and abilities. Children who receive positive feedback from their parents are more likely to expect positive outcomes and persist on subsequent tasks. Conversely, children who receive negative feedback from their parents may feel less confident and unsure about their abilities on subsequent tasks (Eccles & Harold, 1996). In sum, parents’ expectations play a crucial role in children’s assessments of themselves in the academic and social domains.
Parent expectations and child academic outcomes. Parents’ educational expectations, including aspirations for their child’s academic performance and school completion, have an effect on children’s academic achievement and school adjustment (Davis-Kean, 2005; Pearce, 2006; Schoon et al., 2002). Although many factors influence children’s academic outcomes, parental expectations are a relatively strong predictor that directly affects these outcomes (Benner & Mistry, 2007; Neuenschwander, Vida, Garret, & Eccles, 2007; Zimmerman et al., 1992). Fan and Chen’s (2001) meta-analysis on the relationship between parent involvement and children’s overall academic achievement suggests that among the many different facets of parent involvement (e.g. supervision of children at home, rules for watching TV), parental educational aspirations are the best predictor of students’ academic achievement. Other studies further demonstrate that parents’ beliefs and expectations regarding children’s reading and math abilities strongly influence children’s later academic performance in math and reading (Gill & Reynolds 1999; Halle et al., 1997). A study by Davis-Kean (2005) examined the link of parents’ educational expectations to parents’ behaviors and child achievement using Eccles parent socialization model. Results indicate that parents’ educational expectations were positively related to children’s achievement as well as parents’ behaviors. Moreover, findings indicated that children of parents who held relatively high but realistic academic expectations were motivated to work harder and performed better on academic tests compared to children whose parents who held lower academic expectations for their children (Alexander & Entwistle, 1988; Marjoribanks, 1987). In summary, these studies highlight the pivotal influence of parental beliefs on academic achievement-related behaviors which is critical to children’s later school success and self-perceptions of their academic abilities.

Parent expectations and child socioemotional outcomes. Although there has been considerable research on the influence of parent expectations on children’s academic
achievement, less is known about the ways in which parents’ expectations shape children’s socioemotional outcomes. Numerous studies indicate that parents’ perceptions and expectations about their children influence their attitudes and behaviors toward them (Bugental & Goodnow, 1998; Dix, Ruble, & Zambarano, 1989; McGillicuddy-De Lisi & Sigel, 1995; Miller, 1988) and, as a result, influence their socioemotional outcomes. For example, parents expect their children to show control over aggression and develop some positive social skills by early childhood (Goodnow, Cashmore, Cotton, & Knight, 1984). Parents’ judgments of children’s social behaviors influence or modify the parenting strategies used to change the behavior. Studies demonstrate that mothers who are more knowledgeable and accurate about their children’s abilities are more likely to provide a better-quality environment that is sensitive to their children’s development and foster children’s social and cognitive development (Goodnow, 1988; Miller, 1988; Sigel, 1992). Studies that assess parent expectations of their child’s behavior or temperament indicate that parents’ unrealistic expectations about child development or a mismatch in parent expectations and children’s abilities may foster harsh child-rearing practices that have negative implications for children’s well being (Dukewich, Borkowski, & Weitman, 1996; Kingston & Prior, 1995). Some studies indicate that parent’s positively-biased views of their children, perhaps wanting their children to appear in a socially desirable way, can pose difficulties for some children at school (Cai, Kaiser, & Hancock 2004; Mangelsdorf, Schoppe, & Buur, 2000). A study by Cai, Kaiser, and Hancock (2004) demonstrates that a mismatch in parent and teacher expectations of behavioral or emotional problems from the Child Behavior Checklist are likely to contribute to negative effects on the child’s experiences at school. Children tend to be better adjusted when parents’ and teachers’ expectations are consistent with each other when they enter formal schooling. Based on the studies mentioned above, realistic parent expectations are important influences on children’s positive adjustment to school and
socioemotional well-being. Unrealistic parent expectations can create negative experiences for children, thus placing them on a poorer developmental trajectory.

*Parent Warmth.* The last dimension of parenting, warmth, is one of the most important dimensions that influence the development of their children (Maccoby & Martin, 1983). Rohner (1975, 2004) describes warmth as the quality of the emotional component of the parent-child relationship, often expressed physically or verbally. Many studies examine the effects of parent behaviors on a continuum of warmth and rejection. On one end of the continuum, warmth is marked by parent’s emotional availability, responsiveness, sensitivity, acceptance, and love towards a child (Rohner, 2004). On the other end of the continuum, rejection is marked by negative psychological or behavioral approaches, such as harshness, irritability, and hostility towards a child (Belsky et al., 1997). Past research indicates that parent warmth permeates almost every aspect of children’s academic and socioemotional outcomes, such as their social, emotional, and cognitive development (Egeland, Weinfield, Bosquet, & Cheng, 2000; Luthar & Suchman, 2000; Rohner, 2004). The influence of parental warmth on child academic outcomes and child socioemotional outcomes is discussed below.

*Parent warmth and child academic outcomes.* In general, studies show that warm and nurturing parent-child relationships are related to how well children do in school and are linked to positive outcomes across children’s academic trajectory (Grolnick & Ryan, 1989; Raviv, Kessenich, & Morrison, 2004; Smith, Landry, & Swank, 2000). For example, Campbell and von Stauffenberg (2008) demonstrates that the quality of parent-child interactions, including mother’s sensitivity and warmth, influence children’s readiness for school. More specifically, higher levels of maternal sensitivity and warmth predict higher levels of children’s emergent literacy skills, such as verbal comprehension and expressive language. In addition, other studies found that parents’ supportiveness and warmth during interactions with their children were
strong predictors of children’s cognitive development and school performance (Hann, Osofsky, & Culp, 1996; Kelly, Morisset, Barnard, Hammond, & Booth, 1996). Research has also examined the relationship between children’s school success and parenting style (Beyer, 1995; Dornbusch & Ritter, 1990; Lam, 1997). For example, Steinberg and colleagues (1992) demonstrate that authoritative parenting styles, reflecting warm but firm parenting, contribute to academic competence among adolescents. Similarly, other studies corroborate the finding that parent warmth is associated with children’s academic success (Dornbusch et al., 1987; Grolnick & Ryan, 1989; Kim & Rohner, 2002). Furthermore, the importance of parental warmth is related to other indicators of academic success, including a stronger work orientation, higher academic motivation and aspirations, and more positive academic self-conceptions (Beyer, 1995; Grolnick & Ryan, 1989; Lamborn et al., 1991; Steinberg, Elmen, & Mounts, 1989). Clearly, children benefit from caregiving that is warm, responsive, and available. Less is known, however, about the stability of parent warmth and child outcomes across time and among different cultures.

**Parent warmth and child socioemotional outcomes.** Previous research also indicates positive effects of parent warmth on children’s social and emotional outcomes (Clark & Ladd 2000; Barber et al., 2005; Krevans & Gibbs, 1996; Rohner & Khleque, 2005). Warmth and responsive parenting has consistently been related to children’s socioemotional outcomes such as empathy, self-control, and pro-social behaviors (De Wolff & van IJzendoorn, 1997; Eisenberg, Fabes, Schaller, Carlo, & Miller, 1991; Hastings et al., 2000; Janssens & Gerris, 1992; Kochanska, Murray, & Harlan, 2000; Padilla-Walker & Christensen, 2010). A study by Zhou and colleagues (2002) examined the association between parent warmth and positive expressiveness and children's self-reported empathy. Findings indicate that parents' warmth and positive expressivity during parent-child interactions were associated with children’s empathy and social competence. Studies show that children of warmer parents are encouraged to be
emotionally expressive and are better able to express emotions more appropriately, which is vital for social interactions with peers (Isley et al., 1996, 1999). Other research studies indicate that parent warmth predicts fewer psychological problems among children and adolescents (Baumrind, 1991; Rohner, 1986). Warm and supportive parenting reduces children’s anxiety, aggression, and internalizing behaviors (Bayer, Sanson, & Hemphill, 2006; McCabe, Clarke, & Barnett, 1999; Rubin, Burgess, & Hastings, 2002; Vazsonyi, Pickering, & Bolland, 2006). Moreover, parent warmth is a crucial component of the development of a secure attachment and positive relationships with parents, siblings, peers, and romantic partners (Ainsworth, Blehar, Waters, & Wall, 1978; Howe, Aquan-Assee, & Bukowski, 2001; McDonald, 1992; Youngblade & Belsky, 1992). Parents’ warmth is thought to foster children’s social competence and is related to positive ratings by, and acceptance among, peers (McDonald, 1992; Isley et al., 1996; Richman & Rescorla, 1995). Conversely, the lack of parent warmth has been associated with psychological maladjustment and children’s aggressive behaviors, sadness, loneliness, and peer rejection (Du Rocher Schudlich, Shamir, & Cummings, 2004; Hale, Van Der Valk, Engels, & Meeus, 2005; McEwen & Flouri, 2009; Manzeske & Stright, 2009). A study by Ge and colleagues (2009) reported that low maternal warmth predicted increases in girls’ depressive symptoms from late childhood to adolescence. The lack of parental warmth has important implications for social relationships. The lack of parent warmth can disrupt relationships and perpetuate maladaptive interactions with parents, peers, and romantic partners, thus creating adverse consequences for social functioning (Hale, Van der Valk, Akse, & Meeus, 2008; Ooi, Ang, Fung, Wong, & Cai, 2006; Ruh Linder, Crick, & Collins, 2002).

Perhaps the most central influence on the aforementioned parenting dimensions is the cultural context in which parenting occurs. Culture, defined as the common beliefs, values, and customs held by members of a society (Greenfield, Suzuki, & Rothstein-Fisch, 2006), shapes the
way parents raise their children. In a multicultural society, such as the United States, it is important to examine how parenting dimensions in different cultures can influence children’s behaviors and eventually their developmental patterns.

**Parenting Among Minority Groups**

Basic parenting goals, such as nurturing and providing for the well-being and survival of their children (Bornstein, 2006), are common across cultures. However, parents’ socialization goals, beliefs, and behaviors are influenced by the specific culture within which parenting may occur (Bingham & Okagaki, 2004; Chen, Lui, & Li, 2000). Parents from various cultures may place different values on children’s behaviors, such as their autonomy and obedience (Bornstein & Cote, 2004; Tamis-LeMonda et al, 2008). Until recently, most of the research concerning patterns of parenting has focused on normative child-raising among White middle class families from Western cultures (Zayas & Solari, 1994) to which other cultural groups were compared to (Bronfenbrenner, 1985; Darling & Steinberg, 1993). However, diversity in parenting becomes apparent when parenting among other ethnicities, such as Latino, Asian, and Blacks, is considered. Historically, minority groups’ caste-like status prevented them from having similar economic, social, and educational access to that of Caucasians (Fordham & Ogbu, 1986), and minority groups became a target of negative stereotypes and discrimination (Padilla & O’Grady, 1987). Cultural patterns among ethnic minority families, including biculturalism and reliance on extended families, were reflected in the socialization goals of parents (Harrison, Wilson, Pine, Chan, & Buriel, 1990). For example, research finds that parents of ethnic minority groups expect their children to be interdependent with their extended family and learn about and value their culture (Unger et al, 2002; Harrison, Wilson, Pine, Chan, & Buriel, 1990). Furthermore, being part of a minority group influences parenting dimensions, such as parent expectations. Research demonstrates that Latino, Asian, and Black parents report holding significantly higher
educational expectations for their children compared to White parents (Cheng & Starks, 2002; Hossler & Stage, 1992). However, academic outcomes vary among minority groups as researchers have found that Asian American children have higher academic success compared to Latino and Black children (Fuligni & Hardway, 2004; Portes & MacLeod, 1996).

Recent research also suggests that there are differences in parenting practices and their effects on children among minority groups. For example, although high educational expectations can be found among all minority groups, Latinos, followed by Blacks, were among the least educated groups in the United States (Beutel & Anderson, 2008; Goyette & Xie, 1999; Kao & Tienda, 1998; U.S. Census Bureau, 2012). Further discrepancies are seen in the academic achievement of minority groups. For example, Asian Americans, portrayed by the general public as the model minority group, have higher academic and occupational success compared to Latino and Blacks (Pew Research Center, 2012; Wong, Lai, Nagasawa, & Lin, 1998). The cultural values that ethnic groups identify with have important implications for guiding children’s own beliefs, which in turn, can influence their behaviors.

Parenting in collectivistic vs. individualistic cultures. Numerous studies have compared cultural differences among ethnic groups with respect to individualism and collectivism. These cultural conceptualizations may explain differences in parenting behaviors and goals. Individualism emphasizes individuality, including the development of personal goals and independence, whereas collectivism emphasizes the tendency for individuals to define themselves and their values in relation to the larger group (Hofstede, 1980; Triandis, 1989). Parents from individualistic cultures are more likely to stress autonomy in their children thereby encouraging them to make their own choices and explore the environment (Schulze, Harwood, & Schoelmerich, 2001). Conversely, parents from collectivistic cultures are more likely to stress group goals, socializing their children to obey authority, sacrifice personal goals for the larger
group, and to be responsible and loyal to their family members, including extended kin (Greenfield, 1994; Triandis, 1995). European Americans in the United States are thought to be more individualistic, whereas members of the three largest minority groups (Latino, Asian, and Black) are thought to be more collectivistic (Coon & Kemmelmeier, 2001; Dixon, Graber, & Brooks-Gunn, 2008; Gaines et al., 1997). For example, all three ethnic minority groups embrace the importance of the group over the individual, placing an emphasis on the interconnectedness of family and extended family members (Constantine, Gainor, Ahlwalia & Berkel, 2003; Kim, Sherman, Ko, & Taylor, 2006; Utsey, Adams & Bolden, 2000). The salience of strong family orientations among Black, Latino, and Asian cultures is believed to influence parenting.

One limitation of previous research is that most of the studies assessing individualism and collectivism compared Whites to members of only one minority group or to minority groups as a whole, masking the differences among minority groups. For example, although the three ethnic groups may endorse collectivism, collectivism may be differentially endorsed depending on the past history and status of the ethnic groups (Coon & Kemmelmeier, 2001). Many Latino and Asians immigrated to the United States voluntarily and much later than Blacks, whose experiences of slavery and racism are reflected in their parenting (Ogbu, 2004). Although the majority of studies suggest that Blacks endorse collectivistic values, some researchers argue that they may be more individualistic (Boykin & Allen 2003; Oyserman, Gant, & Ager, 1995). Parenting differences among ethnic groups will be discussed next.

Black parenting. Historically, although Blacks are one of the oldest ethnic minority groups in the US, many Black families still face racial and economic oppression. Demographically, many children from Black families come from single family households and live below the poverty level (Aud, Fox, & Kewalramani, 2010; U.S. Census Bureau, 2011). In fact, Black children are currently four times more likely to live below the poverty level than
Caucasian children (Siegel, Hyg, Aneshensel, Taub, Cantwell, & Driscoll, 2001). Due to their perceptions of discrimination and economic oppression, Black parents often engage in a distinctive practice of racially socializing their children to promote resilience against negative stereotypes (Taylor, Chatters, Tucker & Lewis, 1990). Family support among extended relatives serves as an important buffer against mental health problems among Black children (Harris & Molock, 2000). These factors influence parenting approaches and beliefs, including respect for authority and the importance of educational attainment and achievement (Harrison, et al., 1990; Rashid, 1985). For example, Daddis and Smetana (2005) found that Black parents encouraged higher behavioral control and later autonomy of their children compared to European American parents. Dillon and colleagues (2008) found that compared to European American girls, African American and Latina third grade girls reported more respect for parental authority. Furthermore, compared to European American mothers, African American and Latino mothers reported more intense arguments with their children when children’s respect for parental authority was low.

Although strict and punitive parenting styles are often associated with negative child outcomes, several studies suggest less detrimental outcomes of strict and punitive parenting among children from Black families (Deater-Deckard & Dodge, 1997; Grogan-Kaylor, 2005; McLeod & Nonnemaker, 2000). For example, Grogan-Kaylor (2005) reported that corporal punishment predicted more antisocial behaviors as children age, but this increase was less pronounced for Black and Latino youth, compared to White youth. Similarly, other studies have found that strict parenting and harsh punishment was related to less behavioral and socioemotional problems in Black youth compared to White youth (Gunnoe & Mariner, 1997; Lansford, Deater-Deckard, Dodge, Bates, & Pettit, 2004; Ispa, et al, 2004; Polaha, Larzelere, Shapiro, & Pettit, 2004). Using a large and nationally representative sample of elementary school children, Gunnoe and Mariner (1997) found that corporal punishment predicted less fighting at
school for Black children but more fighting for White children. These findings suggest that the combination of restrictive parenting and high warmth, reflective of culturally specific values and norms, may not be as harmful to the socioemotional development of Black youth.

Latino parenting. Latinos, one of the fastest growing ethnic groups in the United States, roughly account for 15.1% of the United States population (US Census Bureau, 2008). Latinos who immigrated to the United States came from areas such Central and South America for widely different reasons, such as to flee from political oppression or to gain a better education and employment (Harwood, Leyendecker, Carlson, Asencio, & Miller, 2002). Demographically, Latino children, compared to non-Latinos, are more likely to come from families who live in inner cities and in poverty (Moore, Redd, Burkhauser, Mbwana, & Collins, 2009; Villarruel, Carlo, Grau, Azmita, Cabrera, & Chahin, 2009). Although Latino families in the United States represent a highly diverse group, they share some core values and beliefs. Two core cultural values relevant to socialization, respeto and familismo, are reflected in childrearing beliefs and values. Respeto emphasizes the expectation that children will respect and show proper demeanor towards parents, elders, and authority figures (Comas-Dias & Duncan 1985; Harwood et al., 2002). The core value of the family, also known as familismo, is another central cultural concept that influences parenting. Familismo refers to the strong commitment, support, sense of obligation, and interdependence among family members (Romeo, 2000; Unger et al., 2002; Updegraff, McHale & Whiteman, 2005). Existing research indicates that compared to Whites and other ethnicities in the United States, Latino families have larger families, including extended family members, and a more cohesive family support system (Cauce & Domenech-Rodriguez, 2002; Keefe & Padilla, 1987; Miller & Harwood, 2001; Miller-Loncar, Erwin, Landry, Smith, & Swank, 1998). Further, research suggests that familismo is thought to be a key process in Latino parenting that serves as a protective factor by mitigating behavioral in Latino
For example, Latino adolescents who reported higher levels of *familismo* values used less drugs and alcohol (Gil, Wagner, & Vega, 2000; Ramirez et al., 2004) and demonstrated positive school and social adjustment in middle childhood (Franco & Levitt, 1998; Levitt, Guacci-Franco, & Levitt, 1994).

Research on parenting patterns among Latinos has produced conflicting results, with some researchers describing Latino parents as controlling and punitive (Hill, Bush, & Roosa, 2003; Parke et al., 2004; Rodriguez & Olswang, 2003), and others describing them as nurturing and warm (Calzada & Eyberg, 2002; Domenech Rodriguez, Donovick, & Crowley, 2009; Gamble, Ramakumar, & Diaz, 2007). Divergent characterizations of Latino parenting are also seen in existing studies that compare Latino and White parenting styles. Several studies describe Latino parents as authoritarian, highly restrictive, and more likely to use physical disciplinary methods compared to White parents (Chao & Kanatsu 2008; Dixon et al., 2008; Gershoff et al., 2012, Santiago-Rivera et al., 2002). Latino parents were also found to be more authoritarian than Black parents in a study comparing inner city Latino and Black families (Florsheim, Tolan & Gorman-Smith, 1996). Latino parents were seen to exert more control and to expect greater obedience from their children in comparison to African-American parents. Conversely, a fraction of the studies indicate that Latino parents are more permissive and indulgent than Caucasian parents (Cauce & Domenech-Rodríguez, 2002; Halgunseth et al., 2006; Hill, Bush, & Roosa, 2003). Researchers argued that perhaps the inconsistencies in the literature may be due to the heterogeneous composition of the group as well as varying background factors of Latino families, including acculturation and education (Harwood, et al., 2002; Martinez, 1988). Despite the conflicting reports about parenting patterns among Latinos, it is generally acknowledged that Latino parents tend to adhere to socialization goals and parenting beliefs that emphasize the cultural values of *respeto* and *familismo*. 
Asian parenting. Recently, in 2012, the influx of Asian immigrants, mostly from China, Korean, Japan, India, Vietnam, and the Philippines, surpassed that of Latinos, with Asian Americans making up roughly 5% of the United States population (Pew Research Center, 2012). Demographically, Asian Americans generally outperform other ethnic groups in terms of educational attainment, low poverty levels, and employment (Center on Education Policy, 2010; Pew Research Center, 2012; U.S. Census Bureau, 2012). In Asian cultures, the roots of childrearing have often been traced back to Confucian views (Chao, 2000a). Confucian views emphasize the importance of family over the individual. Further, within parent-child relationships, children are socialized to believe they should be loyal to, obey, and respect their elders in order to foster harmonious family relations. One significant parental belief influenced by Confucian thinking, Guan has been noted in parenting behaviors and practices. Guan is a term that describes training and educating children to learn socially desirable and culturally expected behaviors (Chao, 1994). There is evidence that such cultural concepts influence Asian Americans’ parenting styles.

Authoritarian parenting styles have been seen as the dominant parenting style among Asians and Asian Americans (Chao & Kim, 2000; Lanham & Garrick, 1996; Shariff, 2009), and research has demonstrated that Asian parents are more restrictive compared to European American parents (Fuligni, 1998; Lin & Fu, 1990; Rosenthal & Feldman, 1992; Stewart, Bond, Deeds, & Chung, 1999). Moreover, Asian parents, who value principles that stem from a culture of Confucianism, are more likely to restrain from emotional expression and displays of warmth (Chen, Chen, Wang, & Cen, 2001; Feldman, Rosenthal, Mont-Reynaud, Leung, & Lau, 1991; Herz & Gullone, 1999; Wu & Chao, 2005). Studies that examined the effects of parenting style on child outcomes have not been as consistent for Asian Americans as they have for Whites. Asian Americans’ authoritarian parenting, compared to Whites’, predict higher academic
achievement, whereas authoritative parenting was not related to Asian Americans’ school performance (Dornbusch et al., 1987). Steinberg, Dornbusch, & Brown (1992) examined differences in academic achievement among Caucasian, Hispanic, Asian, and African American high school students. The study found that all of the students reported that their parents valued getting a good education, yet African-American and Hispanic students reported spending less time on homework, perceived their parents as having lower academic performance standards, and were less likely to believe that hard work leads to success. This may be due to the cultural influence of guan, in which parents train and expect their children to succeed in school. Asian American parents, compared to other ethnic groups, strongly emphasize educational values and tend to have higher parental expectations for educational attainment and grades (Chao, 1996; Fuligni, Tseng, & Lam, 1999; Hao & Bonsted-Bruns, 1998; Kao, 1995; Phinney, Ong, &Madden, 2000).

Baumrind’s (1967) features of parent warmth and responsiveness in authoritative parenting styles may not be generalizable to Asian cultures. Perhaps among Asian parents, the key features of parenting are whether parents are involved and supportive of their children’s academic development (Chao, 1994). Overall, the research on Asian American parenting suggests that although Asian parents tend to be relatively more restrictive and controlling, their disciplinary method may not have the same negative effect on children’s developmental outcomes as it does for other cultures. In sum, the influx and growing diversity of different ethnic groups has shed light on the variations of parenting behaviors. It is important to examine how these differences in parenting influence child outcomes to help researchers better understand children’s academic and socioemotional development.

**Developmental perspectives on parenting dimensions and child outcomes**
Much of our understanding of parenting dimensions and child outcomes during early and middle childhood is based on findings from cross-sectional studies. Cross-sectional studies of children at different ages may suggest what happens over the lifespan, but longitudinal studies are required to actually study this. Through the transition from early childhood to middle childhood, longitudinal studies have provided evidence of the influence of parenting dimensions on child outcomes. For example, several longitudinal studies have shown that controlling parenting has long-term detrimental effects on children’s development of self-regulation (Colman, Hardy, Albert, Raffaelli, & Crockett, 2006; Demetriou, 2000; Manzesk & Stright 2009). A detailed look in one study by Moilanen and colleagues (2010) revealed that parents’ high responsiveness and low psychological control is positively associated with boys self-regulation concurrently and one year later in an ethnically diverse sample of 10-year-old African, Hispanic, and European Americans. Several studies have also highlighted the negative long-term consequences of parents who use physical punishment as a disciplinary method (Holden, 2002; Smith et al., 2005; Straus & Stewart, 1999). Gershoff’s (2002) meta-analysis on the effects of corporal punishment found that although parents used physical punishment to gain immediate compliance, this type of discipline actually led to more negative child outcomes over time, such as aggression, defiance, and antisocial behaviors. The sample composition of this meta-analysis ranges from a mean age of 1-16. Similarly, other studies have found that the use of corporal punishment in childhood predicts an increase in later antisocial behavior among children (Grogan-Kaylor, 2005; Straus & Mouradian, 1998). Longitudinal studies also highlight the importance of parent warmth in understanding child behaviors across the lifespan. A study by Pettit, Bates, and Dodge (1997) examined the impact of parental warmth prior to kindergarten on children’s academic adjustment. Results indicated that parent warmth and involvement during early childhood predicted children’s academic performance in kindergarten and in 6th grade.
These associations continue to be seen in later adolescent and early adulthood as well (Heaven & Ciarrochi 2008; Liem, Cavell, & Lustig, 2010; Nelson, Padilla-Walker, Christensen, Evans, & Carroll, 2011). These studies are in line with previous longitudinal studies, in which parents’ affection predicted children’s pro-social behavior toward siblings (Volling & Belsky, 1992) and empathy-related responding to emotion-invoking images (Zhou et al., 2002).

Most of the aforementioned studies posit a uni-directional effect in which parenting factors shape and determine child developmental outcomes. However, studies have shown an increase in awareness that in addition to parent influence on child outcomes, variations in child characteristics can influence parenting (Komsi et al., 2008; Kuczynski, Marshall, & Schell, 1997; Rubin, Nelson, Hastings, & Asendorpf, 1999; Maccoby, 1992; Parke, 2002). Several studies of child effects on parenting, for example, find that children who are seen as being frequently aggressive, noncompliant, or antisocial tend to evoke negative emotions and cognitions among parents, which in turn leads to increases in negative parental control and behaviors (Albrecht, Galambos, & Jansson, 2007; Scaramella & Leve 2004; Smith, Sprengelmeyer, & Moore, 2004; Reitz, Dekovic, & Meijer, 2006). Children who do not meet parents’ expectations for competence and assertiveness are less likely to be granted autonomy from their parents than children whose parents deem them as being capable (Bell, 1968). Holden and colleagues (1997) found that most mothers who reported a change in their attitude towards physical punishment attributed it to the particular child’s reaction to a discipline strategy or to other child characteristics.

Bidirectional pathways between parenting and child outcomes have also been found in adolescence (Albrecht et al., 2007). For example, Patterson’s (1982) theory of coercive family processes describes bidirectional pathways between parenting and adolescent outcomes. According to Patterson’s theory, adolescents of overtly hostile and controlling parents are more
likely to interact with deviant peers (Dishion, Patterson, Stoolmiller, & Skinner, 1991). This in turn increases adolescents’ antisocial and externalizing behaviors, causing parents to further disengage from their children (Dishion, Nelson, & Bullock, 2004), which creates opportunities for adolescents to further engage in delinquent behavior. This bidirectional influence of parental negative reactions and adolescents’ negative outcomes adversely affects parenting quality and practices (Patterson, Reid, & Dishion, 1992; Rueter & Conger, 1998). In sum, these findings show that children’s behaviors have a substantial effect on parenting. Examination of the bidirectional influences of parenting dimensions and children’s socioemotional and academic outcomes can shed light on the nature of the changes in parent-child relationships that may occur throughout childhood.

Also relevant is how the developmental stage of the child is likely to influence the magnitude of associations between patterns of parenting and child outcomes (O’Connor, 2002). The nature of developmental changes in children to which parents must respond affects parent-child interactions as well (Collins & Madsen, 2003), and bidirectional studies suggest that reciprocal influence is not consistent across child development. For example, empirical research indicates that the use of harsh discipline, including physical punishment, decreases as children get older (Dietz, 2000; Loeber et al., 2000; Nobes & Smith, 1997; Smetana et al., 2006; Wissow, 2002). Furthermore, although physical punishment is associated with immediate compliance in early childhood (Dietz, 2000; Ghate, Hazel, Creighton, Finch, & Field, 2003), children whose parents continue to use physical discipline during middle childhood develop behavioral problems (Colman et al., 2006; Lansford et al., 2011). A study by Lengua (2006) found that parents’ inconsistent disciplinary methods and rejection from childhood to adolescence were related to higher levels of externalizing symptoms in adolescence. Moreover, as children age and seek greater independence from parents, parents’ disciplinary strategies tend to change to one of a
supervisory nature (Maccoby, 1984), and adolescents’ perceptions of parent warmth in their relationships decrease (Loeber et al., 2000; Smetana et al., 2006). Thus, while time-outs were more commonly used and may have worked with younger children, parents tend to modify their disciplinary methods to deprive older children of privileges instead (Smetana, 1997). These empirical findings are indicative of the importance of examining parenting behaviors and changes in the parent-child relationship from a developmental perspective.

Conclusions and limitations of previous studies

Many studies have relied on cross-sectional methods to examine the influence of parenting on child outcomes. However, cross-sectional methods do not clarify the causality and the direction of effects between parenting and child outcomes across childhood. To examine age-related changes between the parenting dimensions and child outcomes and to more firmly establish the contribution of parenting to child development, longitudinal studies are needed. It is also well established that parenting behaviors are modified or influenced in part by how children react or behave. However, further investigation of the driving force underlying these changes is needed. To examine whether children become more of a driving force in the changes between parenting dimensions and child outcomes as they get older can only be addressed using a longitudinal design. The multiple time points available in the current study, from Kindergarten up to 5th grade, makes it easier to examine the direction and relative contribution of the bidirectional paths (parenting dimensions to child outcomes and child outcomes to parenting dimensions) to the interactive process of parenting and child development. In addition, the current study seeks to investigate ethnic differences in the bidirectional associations between parenting and child outcomes over time and whether the driving force underlying those changes is different for White, Latino, Asian, and Black.
Given the importance of parenting on child development, it is not surprising that extensive research exists on parenting dimensions and various child outcomes. However, there continues to be a need to study the nature of parenting and child development across time and also in relation to different cultural contexts. Given the many changes that occur during childhood and early adolescence, parents continually modify parenting practices to match the changing developmental needs of the child which has implications for different domains of their lives, including social, emotional, and academic domains. Research finds child effects on parenting behaviors as well. However, most studies use cross-sectional methods and relatively few longitudinal studies examine the reciprocal effects over a longer period of time. Given the consolidating effect of child behavior on parenting dimensions, there is a need to examine the ongoing nature of bidirectionality across parenting dimensions and child outcomes (Steinberg, 1981).

In a multicultural society such as the United States, variations in cultural beliefs and values can influence parenting behaviors and practices, which in turn can affect child outcomes. Many studies, however, have examined comparisons between Whites and one minority group (Chao, 1996, 2001; Chea & Rubin, 2003), or Whites and minority groups as a whole (Gaines et al., 1997). The few studies that examine parenting across different minority groups do not extensively examine the differential effects of various parenting dimensions, or focus on only one domain of child development, such as the academic domain (Boveja, 1998; Dornbush et al., 1987; Jackson, Henriksen, & Foshee 1998; Julian, McKenry, & McKelvey, 1994; Radziszewska, Richardson, Dent, & Flay, 1996). Parenting dimensions and children’s academic and socioemotional outcomes among minority parents is an area of research that needs to be further explored to better understand how parenting dimensions and child outcomes may differ as a function of cultural differences. The current study will address the limitations of previous
research by examining cultural variations in bidirectional changes between parenting and children’s academic and socioemotional development that occur across childhood.
Chapter 3

The Current Study

Using a nationally representative sample from the Early Childhood Longitudinal Study, Kindergarten Class of 1998-1999, (ECLS-K) the current study seeks to explore differences of parenting and child outcomes among four major ethnic groups. The longitudinal design of the ECLS-K dataset is ideal for assessing children’s academic and socioemotional development over time. Additionally, ECLS-K provides a large nationally representative sample of schools and children, including detailed information about children’s development assessed by various sources (i.e. teachers, parents, and children) and allow the examination of effects on children from different backgrounds. However, there are a number of limitations to using the ECLS-K data. The variables of interest in the current study were not measured consistently across all waves. For example, teacher data on child outcomes are available for Kindergarten up to the 3rd grade, whereas direct child assessments on child outcomes are available from the 3rd grade up to 8th grade. Furthermore, modifications to the child outcomes were introduced in the 8th grade student questionnaires. Additionally, measures of parent factors are not available across all the timepoints. For example, although parents’ expectations and warmth were assessed for most of the timepoints, parent warmth was assessed in Kindergarten, 3rd and 8th grade but not in 1st and 5th grade. The lack of information of parent warmth from those timepoints may pose a problem when running bidirectional analyses and also when making causal claims. Despite these limitations, the extensive information available in the dataset can shed light on parenting dimensions on children’s academic and socioemotional outcomes.

The current study includes a component that addresses bidirectional processes of parenting dimensions (parent expectations of the child, parent warmth, and parent discipline) on children’s academic and socioemotional outcomes among White, Asian, Latino, and Black
parents from Kindergarten up to 5th grade. The conceptual model for the study is shown below in Figure 3.

Figure 3. A conceptual model of parenting dimensions and children’s socioemotional and academic outcomes moderated by race, gender, and immigrant status.

According to the model (Figure 3), race, adjusting for gender, SES, and generational status, will be tested as a moderator between parenting dimensions (warmth, discipline, and expectation) and different components of children’s socioemotional outcomes (internalizing and externalizing behaviors) and academic achievement (approaches to learning, math and reading scores). The model will be tested for bidirectional effects of parenting dimensions and children’s socioemotional and academic achievement at each timepoint from Kindergarten, 1st, 3rd, and 5th grade and how these effects differ among White, Asian, Latino, and Black children. The study will therefore add to the understanding of ethnic variations in bidirectional changes that occur across childhood up to early adolescence.

Research hypotheses

1) Model testing - Parenting dimensions related to child outcomes. Based on the theories mentioned above, positive parenting dimensions, including parent warmth and parent
expectations, are expected to be related to positive outcomes in children’s psychological well-being, including higher social competence and academic success in children (Raver, Gershoff, & Aber, 2007; Dornbush et al., 1987; Wentzel, 1998). Although less research has been conducted on parent expectations on children’s socioemotional outcomes, research suggests that a good fit between child behavior and parents’ expectations of their children’s development are likely to provide a better quality environment conducive to social development (Goodnow, 1988; Miller, 1988; Sigel, 1992). Extant research also posits that frequent use of corporal punishment is related to negative child outcomes, such as externalizing behaviors and conduct problems (Grogan-Kaylor, 2005; Larzelere & Kuhn, 2005; Pfiffner, McBurnett, Rathouz, & Judice, 2005).

a. Cross-sectional analyses

H1) Positive parenting, including parent warmth and parent expectations, are expected to be correlated with higher academic achievement (i.e. better approaches to learning, higher reading and math scores) and better socioemotional outcomes (i.e. lower externalizing behaviors, lower internalizing behaviors) for children within each time period.

H2) Frequent use of corporal punishment is expected to be correlated with lower academic achievement (i.e. poorer approaches to learning, lower math and reading scores) and poorer socioemotional outcomes (i.e. lower externalizing behaviors, lower internalizing behaviors) for children within each time period.

b. Longitudinal (bidirectional) analyses

H3) Positive parenting, including parent warmth and parent expectations, are expected to be predictive of higher future academic achievement and
better future socioemotional outcomes after adjusting for initial levels of achievement and socioemotional outcomes, respectively. In turn, higher academic and better socioemotional outcomes among students are expected to predict positive parenting at a future timepoint after adjusting for the initial parenting measures.

H4) Frequent use of corporal punishment is expected to be predictive of lower future academic achievement and poorer future socioemotional outcomes after adjusting for initial levels of achievement and socioemotional outcomes, respectively. In turn, lower academic achievement and poorer socioemotional outcomes are expected to predict frequent use of corporal punishment at a future timepoint after adjusting for the initial measure of corporal punishment.

2) Ethnic differences. Previous studies have found that compared to minority groups, parent warmth and non-physical parent discipline are higher for Whites. However, Black parents have also been found to be high in parent warmth in addition to engaging in more restrictive control (Dearing, 2004; Steele, Nesbitt-Daly, Daniel, & Forehand, 2005). Research also suggests that Asian parents tend to hold higher expectations than parents in other ethnic groups, particularly in the academic domain (Glick & White, 2004; Peng & Wright, 1994). Additionally, SES and race discrimination are related to increases in psychological distress for minority groups (Chow, Jaffee, & Snowden, 2003). Extrapolating from the various sources, I made the following hypotheses about ethnic differences in means and associations of the main study variables

a. Differences in among ethnic groups

H5) Parenting dimensions
• Parent warmth will be higher for Whites followed by Blacks, Latinos, and Asian Americans.

• Parent expectations will be higher for Asian Americans followed by Whites, Blacks, and Latinos.

• Frequent use of corporal punishment will be higher for Blacks, Asians, and Latinos followed by Whites.

H6) Academic achievement

• Academic achievement will be higher for Asian Americans followed by Whites, Blacks, and Latinos children.

H7) Socioemotional development

• Whites will report higher levels of socioemotional development followed by Asian Americans, Blacks, and Latinos children.

b. Ethnic differences in the association between parenting and child outcomes (cross-sectional and longitudinal analyses)

H8) Higher parent warmth is expected to be predictive of higher concurrent and future academic achievement and better concurrent and future socioemotional outcomes more so for Whites and Blacks, followed by Latino and Asian American children. In turn, higher academic and better socioemotional outcomes among students are expected to predict higher parent warmth at a future timepoint, after adjusting for the initial measure of parent warmth, more so for Whites and Blacks, followed by Latino and Asian Americans.

H9) Higher parent expectations is expected to be predictive of higher concurrent and future academic achievement and better concurrent and
future socioemotional outcomes more so for Asian Americans, followed by White, Latino and Black children. In turn, higher academic and better socioemotional outcomes among students are expected to predict higher parent expectations at a future timepoint, after adjusting for the initial measure of parent expectations, more so for Asian American children, followed by White, Latino, and Blacks.

H10) Frequent use of corporal punishment is expected to be predictive of lower concurrent and future academic achievement and poorer concurrent and future socioemotional outcomes more so for Whites followed by Asian, Latino and Black children. In turn, lower academic achievement and poorer socioemotional outcomes among students are expected to predict more use of corporal punishment at a future timepoint, after adjusting for the initial measure of corporal punishment, more so for White followed by Asian, Latino, and Blacks.

3) *Developmental differences*. As children approach early adolescence, they desire independence and tend to rely less on parents (Eccles, 1999). Outward expressions of parent warmth, parent discipline, and parent involvement lessen as children get older (Spera, 2005). However, due to ethnic minority families’ interdependence or collectivistic family structure, Asian, Latino, and Black children may be subject to greater parental influence than White children as they mature.

   H11) Associations between parenting dimensions and child outcomes will be stronger in childhood than early adolescence.

   H12) The developmental differences will be greater for White children followed by Asian, Latino, and Black children.
Chapter 4

Methods

Dataset

The present study uses a subsample of children drawn from the Early Childhood Longitudinal Study (ECLS-K) conducted by the U.S. Department of Education, National Center for Education Statistics. ECLS-K, a seven-wave longitudinal study, followed a nationally representative sample of 21,260 Kindergarteners beginning 1998. These children were then followed through the spring of Kindergarten (1999), the fall and spring of the 1st grade (1999-2000), the spring of 3rd grade (2002), 5th grade (2004), and the spring of 8th grade (2007). Also gathered at each time point were data from parents, teachers, and school administrators. The current study draws from all of the data collection points, except for spring of the 1st grade in which only a subsample of the ECLS-K primary sampling units were selected for data collection and spring of 8th grade in which some of the measures for child outcomes were not available. Children, parents, teachers, and school administrators provided descriptive information regarding different domains of child development, such as the cognitive, emotional, social, and physical domain. Information on children’s activities outside of the school setting, home and community environment, parent data, and teacher credentials, were also collected.

The ECLS-K used a complex multistage probability design to select a nationally representative sample of children. In the first stage, 100 primary sampling units, consisting of groups of counties, were selected. In the second stage, 1,280 public and private schools within selected counties were sampled. In the last stage, 24 children were randomly sampled from each Kindergarten program at the selected schools. Children in private schools were sampled at a higher rate than children in public schools, and children from Latino and Asian American groups were also oversampled.
Data were collected from children, parents, teachers, and schools using a variety of methods, including paper-and-pencil surveys and telephone interviews. Children were assessed one-on-one by a trained evaluator who visited the children in their schools. Direct child assessments were administered using a computer assisted interviewing methodology when children entered the 3\textsuperscript{rd} grade. Parents participated in a telephone interview at their home via a trained interviewer. Interviews were conducted in person for families who did not have a telephone and also in other languages for parents who did not speak English. Teachers and school administrators completed paper and paper-and-pencil surveys. In addition, information regarding school characteristics was retrieved from school records.

As with any longitudinal study with multiple components, attrition and non-response rates over multiple waves are common. Thus, to reduce any bias in the estimates, modifications were made to adjust for differential sample selection and for non-response in the different waves, using sampling weights. The current study applied a child, teacher, and parent assessment weight of C2_7FP0 in order to acquire a representative sample of Kindergarten children in the 1988-99 school years.

\textit{Sample}

A subsample of 20,203 students of the original 21,260 students was used for the present study. The sample consisted of 58\% White (\(N = 11,788\)), 16\% Black (\(N = 3,224\)), 19\% Latino (\(N = 3,826\)), and 7\% Asian (\(N = 1,365\)) children. The mean age of the participants in the Kindergarten analytic sample was 5.44 years and gender was approximately evenly split (female = 49\%, male = 51\%).

\textit{Measures}

\textbf{Demographic Variables.} The child’s ethnicity (White – reference group, Black, Asian American or Latino) was included as a moderator in the main analyses. Gender (female = 1, male =2), SES,
and generational status (whether they were born in the US) were included as control variables in the analyses.

Parent factors. Three important dimensions of parenting, found by previous literature to be associated with children’s developmental outcomes, were examined.

(1) Parent warmth. Items for parent warmth were available for Kindergarten and 3rd grade. Parental warmth in Kindergarten was based on thirteen items of parent’s evaluation of their relationship with the child and the extent to which they showed warmth to the child. Parents were asked to rate how often they engaged in warmth behaviors using a 4-point scale: 1 = completely true, 2 = mostly true, 3 = somewhat true, and 4 = not at all true. Responses marked as refused and not applicable were scored as missing data. Nine of the thirteen items were reverse-coded, so that higher scores indicate that parents showed more love and warmth toward their children. Examples of items include “My child likes me;” “I always show my child love;” and “My child and I spend warm, close time together.” (α = .70).

Parental warmth in 3rd grade was based on eight items. Parents were asked to rate how often they engaged in warmth behaviors using a 4-point scale: 1 = completely true, 2 = mostly true, 3 = somewhat true, and 4 = not at all true. “I express affection by hugging, kissing, and praising child,” “Child and I often have warm, close time together,” “Even when I’m in a bad mood, I show child a lot of love.” Four of the eight items were reverse-coded (see above). (α = .60).

(2) Corporal punishment. Corporal punishment (available for Kindergarten, 3rd, and 5th) was measured using one variable that indicated the frequency of spanking. Parents were asked how many times in the past week, if any, they spanked their child. The variable was split into four groups: parents who never spanked their child (no physical
punishment), parents who spanked their child but not in the past week (low physical punishment), parents who spanked their child once in the past week (moderate physical punishment), and parents who spanked their child more than once in the past week (frequent physical punishment).

(3) Parent expectations of child. Items for parent expectations were available for Kindergarten, 1st, 3rd, and 5th grade. Parent expectations of their child compared to same-age peers consists of the same five items for Kindergarten ($\alpha = .71$), 1st ($\alpha = .72$), 3rd ($\alpha = .74$), and 5th grade ($\alpha = .75$). They were asked to rate how often they engaged in the behaviors using a 4-point scale: 1 = better than other children his/her age, 2 = as well as other children, 3 = slightly less well than other children, and 4 = much less well than other children. Responses for refused and not applicable were marked as missing data. Items included are “My child is as good as other children;” “My child behaves as well as other children,” “My child is as attentive as other children,” “My child is as articulate as other children,” and “My child is as clever as other children.”

Child outcomes. Child outcomes were conceptualized in two categories: socioemotional outcomes and academic outcomes. As mentioned previously, the measures for children’s socioemotional outcomes differed by grade level. Age-appropriate changes were made to the items measuring children’s perceptions of interpersonal relations. From Kindergarten up to 3rd grade, teachers reported on children’s academic and socioemotional outcomes.

Teacher ratings of socioemotional outcomes. Children’s socioemotional development outcomes were assessed by teachers (in kindergarten, first, third, and fifth grades) using the Social Rating Scale (SRS; Gresham and Elliot 1990). Teachers were instructed to indicate how frequently the child exhibited the behaviors. The current study used all four measures (internalizing behaviors,
externalizing behaviors, interpersonal skills, and self-control) from the SRS, which had items that were rated on a scale of 1 (never) to 4 (very often) and -7 if there were no opportunities to observe the behaviors.

(1) Internalizing behaviors. The internalizing behaviors scale consisted of 4 items that measured “anxiety, sadness, low self-esteem, and loneliness.” The coefficient alpha of internalizing behaviors was .78, .77, .76, and .77 for spring K, 1st grade, 3rd grade, and 5th grade, respectively (NECS, 2006).

(2) Externalizing behaviors. The externalizing behaviors scale was comprised of 5 items regarding how frequently a child “argues, fight, gets angry, acts impulsively, and disturbs ongoing activities.” The alpha reliability of externalizing behaviors was .90, .86, .89, and .89 for spring K, 1st grade, 3rd grade, and 5th grade respectively (NECS, 2006).

Teacher ratings of academic outcomes. Children’s academic outcomes were assessed by teachers (in kindergarten, first, third, and fifth grades) using one item from the Social Rating Scale (SRS; Gresham and Elliot 1990). Teachers were instructed to indicate how frequently the child exhibited learning behaviors on a scale of 1 (never) to 4 (very often) and -7 if there were no opportunities to observe the behaviors. Cognitive assessments on math and reading scores were also used.

(1) Approaches to learning. The scale that measures approaches to learning (i.e., achievement-related or learning-related behaviors) included 6 items that measured children’s “attention skills, task persistence, eagerness to learn, independence in learning, flexibility, and organization.” An example of an item drawn from the approaches to learning scale includes, “Child shows eagerness to learn new things.” The alpha reliability of approaches to learning was .89, .89, .91, and .91 for spring K, 1st grade, 3rd grade, and 5th grade respectively (NECS, 2006).
(2) *Reading achievement scores.* Cognitive assessments for reading were given to determine the level of children’s reading assessments. The assessment tested basic skills such as letter and word recognition and vocabulary knowledge. Later grades (3rd and 5th grade) assessed aspects of reading comprehension skills, including critical evaluations and developing a more complete understanding of what was read.

(3) *Math achievement scores.* The mathematics assessment focused on aspects of conceptual and procedural knowledge and problem-solving skills. The assessment tested knowledge about number properties, number sense, and operations.
Chapter 5

Analytic Approach

As with most longitudinal studies, issues regarding missing data and the multistage sampling design of the ECLS-K study must be addressed. The current study will use weights to adjust for stratification, differential sample selection and for non-response rates over time. The analytic methods for this study can be described as three main sets of analyses using structural equation modeling (SEM). The first set of analyses will consist of main model that examines the bidirectional associations between parenting dimensions and the respective child academic and socioemotional outcomes from Kindergarten, 1st, 3rd, and 5th grade. The second set of analyses will consist of multiple group comparisons that test for differences among the ethnicities. The last set of analyses will consist of multiple group comparisons of parenting dimensions and child outcomes across time. Hypotheses 1-2 will be tested by regressing each component of academic achievement at Kindergarten, 1st grade, 3rd grade, and 5th grade and socioemotional outcomes on parent warmth, parent expectations, and spanking from the previous timepoint (see Figure 4). Hypotheses 3-4 will be tested by regressing the three parenting dimensions at Kindergarten, 1st grade, 3rd grade, and 5th grade on each component of academic achievement and socioemotional outcomes from the previous timepoint. Hypotheses 5-7 will be tested by obtaining the mean ethnic differences for parenting dimensions, academic achievement, and socioemotional development. Hypotheses 8-10 will be tested by regressing each component of academic achievement at Kindergarten, 1st grade, 3rd grade, and 5th grade and socioemotional outcomes on each parent dimension from the previous timepoint among White, Asian, Latino, and Black children. Hypothesis 12 will be tested by regressing parenting dimensions Kindergarten, 1st grade, 3rd grade, and 5th grade on child academic and socioemotional outcomes from the previous timepoint among White, Asian, Latino, and Black children.
Figure 4. A conceptual model of parent evaluation and teacher report of externalizing behaviors being tested for the current study.
Chapter 6

Results

This dissertation used data from the ECLS-K to explore ethnic differences in parenting and child outcomes. For the variables relevant to my study, longitudinal data were available for four major ethnic groups (White, Asian, Latino, and Black) from Kindergarten through 5th grade. Specifically, I addressed the following three sets of research hypotheses:

1) *Cross-sectional and longitudinal (bidirectional) analyses.* Positive parenting dimensions (parental warmth and positive parental evaluation) were expected to be related to positive outcomes in children including better socioemotional outcomes (i.e., lower externalizing and internalizing problems) and higher academic success (concurrently and longitudinally). Frequent use of corporal punishment was expected to be related to worse outcomes in children (concurrently and longitudinally).

2) *Ethnic differences (cross-sectional and longitudinal):* Bidirectional processes of parenting dimensions in relation to children’s academic and socioemotional outcomes were examined among White, Asian, Latino, and Black families. Parental warmth was expected to play a greater role in child outcomes (concurrently and longitudinally) for Whites than for Blacks, Latinos, and Asian Americans. In contrast, parental expectations were expected to play a greater role for Asian Americans than the other groups. Finally, corporal punishment was expected to play a greater role for all three minority groups than for Whites.

3) *Developmental differences.* Associations between parenting dimensions and child outcomes were expected to be stronger in childhood than early adolescence, with
developmental differences being greater for White children followed by Asian, Latino, and Black children.

**Correlations between parenting dimensions and child outcomes**

The first set of analyses examined correlations between parenting dimensions (warmth, evaluation, and spanking) and child outcomes (socioemotional and academic). As expected, parental evaluations were negatively correlated with externalizing behaviors ($rs = -.15$ to $-.26$) and internalizing behaviors ($rs = -.15$ to $-.25$). Parental evaluations were correlated with better approaches to learning behaviors and higher academic scores in reading and math ($rs = .25$ to $-.39$).

An identical pattern of correlations was seen with parental warmth. It was negatively correlated with externalizing behaviors and internalizing behaviors ($rs = -.04$ to $-.17$) and positively correlated with higher academic achievement (i.e. better approaches to learning, higher reading scores, higher math scores, $rs = .05$ to $-.14$).

As expected, frequent use of corporal punishment was correlated with higher externalizing and internalizing behaviors ($rs = .02$ to $-.15$). Frequent spanking was correlated with worse approaches to learning behaviors and lower reading and math scores ($rs = -.03$ to $-.13$).

Two findings regarding corporal punishment are particularly noteworthy. First, for Kindergartners, the associations between corporal punishment and developmental outcomes were about the same or even slightly stronger than those between parental warmth and outcomes. Second, early corporal punishment (at Kindergarten) seemed to have long-lasting effect. It was associated not only with concurrent outcomes but also with outcomes 1 to 5 years later (first, third, and fifth grade) to about the same extent. In fact, these longitudinal associations were
stronger than the associations between later corporal punishment (at third and fifth grade) and their concurrent outcomes.
Table 1.
Correlations between Parenting Dimensions and Child Socioemotional and Academic Outcomes

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

Table 1. Continued

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<tr>
<td>Spanking</td>
<td>-0.06*** -0.07*** -0.04*** -0.04***</td>
<td>-0.03** -0.04** -0.05** -0.06***</td>
<td>-0.04*** -0.05*** -0.05*** -0.06***</td>
</tr>
</tbody>
</table>

Note: a Learning = approaches to learning
Ethnic differences in parenting measures and child outcomes

In terms of socioemotional development, it was hypothesized that Whites would report lower levels of externalizing and internalizing behaviors, followed by Asians, Blacks, and Latinos. However, contrary to expectations, Asian students displayed the fewest externalizing behaviors in Kindergarten ($M = 1.47$), 1st grade ($M = 1.48$), 3rd grade ($M = 1.46$), and 5th grade ($M = 1.43$), followed by White ($M = 1.64$, $M = 1.63$, $M = 1.65$, and $M = 1.61$), Latino ($M = 1.66$, $M = 1.62$, $M = 1.69$, and $M = 1.64$), and Black students ($M = 1.88$, $M = 1.88$, $M = 1.98$, and $M = 1.91$). Internalizing behaviors also varied across ethnic groups. In general, Asians displayed fewest internalizing behaviors in Kindergarten ($M = 1.48$), 1st grade ($M = 1.49$), 3rd grade ($M = 1.49$) and 5th grade ($M = 1.55$), followed by Whites ($M = 1.56$, $M = 1.58$, $M = 1.62$, and $M = 1.63$), Latinos ($M = 1.60$, $M = 1.60$, $M = 1.64$, and $M = 1.65$), and Blacks ($M = 1.62$, $M = 1.65$, $M = 1.68$, and $M = 1.66$).

Predictions regarding ethnic differences in the mean values of parents’ report of warmth, evaluation, and spanking were supported. As expected, parental warmth was highest for Whites ($M = 3.53$ and $M = 3.55$) followed by Blacks ($M = 3.49$ and $M = 3.46$), Latinos ($M = 3.47$ and $M = 3.54$), and Asians ($M = 3.39$ and $M = 3.50$) in Kindergarten and 3rd grade. Parents’ evaluations were highest for Asians at Kindergarten ($M = 3.25$), 1st grade ($M = 3.26$), 3rd grade ($M = 3.29$), and 5th grade ($M = 3.28$), followed by Latinos ($M = 3.20$, $M = 3.20$, $M = 3.22$, and $M = 3.21$), Whites ($M = 3.22$, $M = 3.20$, $M = 3.20$, and $M = 3.20$), and Blacks ($M = 3.14$, $M = 3.12$, $M = 3.11$, and $M = 3.12$). Parents’ reports of spanking also varied across ethnic groups. In general, Blacks reported more spanking in Kindergarten ($M = 1.41$, 3rd grade ($M = 1.13$) and 5th grade ($M = 1.09$), followed by Latinos ($M = 1.18$, $M = 0.92$, and $M = 0.86$), Asians ($M = 1.01$, $M = 1.01$, $M = 1.01$, $M = 1.01$),...
Ethnic differences in the mean values of children’s approaches to learning behaviors in Kindergarten were as expected. Teachers reported that Asians ($M = 3.30$, $M = 3.26$, $M = 3.33$, and $M = 3.35$) in kindergarten, 1st grade, 3rd grade, and 5th grade, respectively, had better approaches to learning behaviors, followed by Whites ($M = 3.17$, $M = 3.09$, $M = 3.11$, and $M = 3.11$), Latinos ($M = 3.02$, $M = 2.98$, $M = 2.99$, and $M = 3.00$), and Blacks ($M = 2.90$, $M = 2.81$, $M = 2.79$, and $M = 2.81$).

In terms of achievement scores, Asians displayed the highest reading scores in Kindergarten ($M = 52.02$), followed by Whites ($M = 48.00$), Latinos ($M = 43.32$), and Blacks ($M = 42.36$). Asians ($M = 83.42$) and Whites ($M = 81.22$) had higher reading scores in 1st grade than did Latinos ($M = 70.46$) and Blacks ($M = 68.53$). There were minor differences in 3rd grade and 5th grade, with Whites ($M = 134.25$ and $M = 157.07$), scoring slightly higher than Asians ($M = 127.63$ and $M = 151.27$), followed by Latinos ($M = 115.49$ and $M = 139.72$), and Blacks ($M = 111.96$ and $M = 134.92$).

Similar patterns were observed for students’ math scores. Asians ($M = 39.60$) and Whites ($M = 39.08$) displayed higher math scores in Kindergarten followed by Latinos ($M = 31.42$), and Blacks ($M = 31.11$). However, in 1st grade, Whites ($M = 65.65$), scored higher than Asians ($M = 62.87$), followed by Latinos ($M = 55.25$), and Blacks ($M = 52.26$). In 3rd and 5th grade, both Whites ($M = 104.97$ and $M = 129.39$, respectively) and Asians ($M = 103.21$ and $M = 130.58$) had higher math scores than Latinos ($M = 90.63$ and $M = 116.07$) and Blacks ($M = 83.38$ and $M = 106.16$).
### Table 2.

**Mean Differences in Socioemotional Outcomes by Ethnic Groups**

<table>
<thead>
<tr>
<th>Teacher Report</th>
<th>White</th>
<th>Black</th>
<th>Latino</th>
<th>Asian</th>
<th>F (p-value)</th>
<th>Post hoc contrasts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Externalizing K</td>
<td>1.64 (.63)</td>
<td>1.88 (.74)</td>
<td>1.66 (.62)</td>
<td>1.47 (.53)</td>
<td>154.43 ***</td>
<td>B &gt; L, W &gt; A</td>
</tr>
<tr>
<td>Externalizing 1&lt;sup&gt;st&lt;/sup&gt;</td>
<td>1.63 (.62)</td>
<td>1.88 (.74)</td>
<td>1.62 (.61)</td>
<td>1.48 (.51)</td>
<td>121.22 ***</td>
<td>B &gt; L, W &gt; A</td>
</tr>
<tr>
<td>Externalizing 3&lt;sup&gt;rd&lt;/sup&gt;</td>
<td>1.65 (.57)</td>
<td>1.98 (.73)</td>
<td>1.69 (.59)</td>
<td>1.46 (.47)</td>
<td>161.57 ***</td>
<td>B &gt; L, W &gt; A</td>
</tr>
<tr>
<td>Externalizing 5&lt;sup&gt;th&lt;/sup&gt;</td>
<td>1.61 (.55)</td>
<td>1.91 (.67)</td>
<td>1.64 (.60)</td>
<td>1.43 (.47)</td>
<td>133.06 ***</td>
<td>B &gt; L, W &gt; A</td>
</tr>
<tr>
<td>Internalizing K</td>
<td>1.56 (.51)</td>
<td>1.62 (.56)</td>
<td>1.60 (.51)</td>
<td>1.48 (.48)</td>
<td>25.39 ***</td>
<td>B &gt; W &gt; A; L &gt; A</td>
</tr>
<tr>
<td>Internalizing 1&lt;sup&gt;st&lt;/sup&gt;</td>
<td>1.58 (.51)</td>
<td>1.65 (.56)</td>
<td>1.60 (.51)</td>
<td>1.49 (.44)</td>
<td>21.59 ***</td>
<td>B &gt; L, W &gt; A</td>
</tr>
<tr>
<td>Internalizing 3&lt;sup&gt;rd&lt;/sup&gt;</td>
<td>1.62 (.54)</td>
<td>1.68 (.59)</td>
<td>1.64 (.53)</td>
<td>1.49 (.42)</td>
<td>20.22 ***</td>
<td>B &gt; W &gt; A; L &gt; A</td>
</tr>
<tr>
<td>Internalizing 5&lt;sup&gt;th&lt;/sup&gt;</td>
<td>1.63 (.55)</td>
<td>1.66 (.54)</td>
<td>1.65 (.54)</td>
<td>1.55 (.45)</td>
<td>7.25 ***</td>
<td>B, W, L &gt; A</td>
</tr>
</tbody>
</table>

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

**Note:** A = Asian; B = Black; L = Latino; W = White

### Table 2 (continued).

**Mean Differences in Academic Outcomes by Ethnic Groups**

<table>
<thead>
<tr>
<th></th>
<th>White</th>
<th>Black</th>
<th>Latino</th>
<th>Asian</th>
<th>F (p-value)</th>
<th>Post hoc contrasts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning K</td>
<td>3.17 (.67)</td>
<td>2.90 (.74)</td>
<td>3.02 (.69)</td>
<td>3.30 (.62)</td>
<td>169.28 ***</td>
<td>A &gt; W &gt; L &gt; B</td>
</tr>
<tr>
<td>Learning 1&lt;sup&gt;st&lt;/sup&gt;</td>
<td>3.09 (.69)</td>
<td>2.81 (.76)</td>
<td>2.98 (.70)</td>
<td>3.26 (.64)</td>
<td>129.86 ***</td>
<td>A &gt; W &gt; L &gt; B</td>
</tr>
<tr>
<td>Learning 3&lt;sup&gt;rd&lt;/sup&gt;</td>
<td>3.11 (.67)</td>
<td>2.79 (.73)</td>
<td>2.99 (.68)</td>
<td>3.33 (.57)</td>
<td>133.34 ***</td>
<td>A &gt; W &gt; L &gt; B</td>
</tr>
<tr>
<td>Learning 5&lt;sup&gt;th&lt;/sup&gt;</td>
<td>3.11 (.66)</td>
<td>2.81 (.70)</td>
<td>3.00 (.69)</td>
<td>3.35 (.59)</td>
<td>125.88 ***</td>
<td>A &gt; W &gt; L &gt; B</td>
</tr>
<tr>
<td>Reading score K</td>
<td>48.00 (14.27)</td>
<td>42.36 (11.35)</td>
<td>43.32 (12.01)</td>
<td>52.02 (18.05)</td>
<td>239.84 ***</td>
<td>A &gt; W &gt; L &gt; B</td>
</tr>
<tr>
<td>Reading score 1&lt;sup&gt;st&lt;/sup&gt;</td>
<td>81.22 (23.90)</td>
<td>68.53 (20.71)</td>
<td>70.46 (21.22)</td>
<td>83.42 (25.80)</td>
<td>301.24 ***</td>
<td>A &gt; W &gt; L &gt; B</td>
</tr>
<tr>
<td>Reading score 3&lt;sup&gt;rd&lt;/sup&gt;</td>
<td>134.25 (26.24)</td>
<td>111.96 (25.30)</td>
<td>115.49 (27.31)</td>
<td>127.63 (26.27)</td>
<td>569.99 ***</td>
<td>W &gt; A &gt; L &gt; B</td>
</tr>
<tr>
<td>Reading score 5&lt;sup&gt;th&lt;/sup&gt;</td>
<td>157.07 (23.78)</td>
<td>134.92 (26.04)</td>
<td>139.72 (25.76)</td>
<td>151.27 (25.66)</td>
<td>458.92 ***</td>
<td>W &gt; A &gt; L &gt; B</td>
</tr>
<tr>
<td>Math score K</td>
<td>39.08 (12.07)</td>
<td>31.11 (9.59)</td>
<td>31.42 (10.19)</td>
<td>39.60 (13.17)</td>
<td>660.74 ***</td>
<td>A, W &gt; L, B</td>
</tr>
<tr>
<td>Math score 1&lt;sup&gt;st&lt;/sup&gt;</td>
<td>65.65 (18.20)</td>
<td>52.26 (14.48)</td>
<td>55.25 (15.81)</td>
<td>62.87 (18.36)</td>
<td>533.22 ***</td>
<td>W &gt; A &gt; L &gt; B</td>
</tr>
<tr>
<td>Math score 3&lt;sup&gt;rd&lt;/sup&gt;</td>
<td>104.97 (23.18)</td>
<td>83.38 (21.94)</td>
<td>90.63 (23.19)</td>
<td>103.21 (25.55)</td>
<td>585.93 ***</td>
<td>A, W &gt; L &gt; B</td>
</tr>
<tr>
<td>Math score 5&lt;sup&gt;th&lt;/sup&gt;</td>
<td>129.39 (22.28)</td>
<td>106.16 (24.45)</td>
<td>116.07 (24.43)</td>
<td>130.58 (24.18)</td>
<td>473.87 ***</td>
<td>A, W &gt; L &gt; B</td>
</tr>
</tbody>
</table>

**Note:** *Learning = approaches to learning*
Table 2 (continued).

Mean Differences in Parenting Dimensions by Ethnic Groups

<table>
<thead>
<tr>
<th>Parent report</th>
<th>White Mean (SD)</th>
<th>Black Mean (SD)</th>
<th>Latino Mean (SD)</th>
<th>Asian Mean (SD)</th>
<th>F (p-value)</th>
<th>Post hoc contrasts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation K</td>
<td>3.22 (.42)</td>
<td>3.14 (.45)</td>
<td>3.20 (.41)</td>
<td>3.25 (.43)</td>
<td>31.41 ***</td>
<td>A &gt; L &gt; B; W &gt; B</td>
</tr>
<tr>
<td>Evaluation 1st</td>
<td>3.20 (.40)</td>
<td>3.12 (.41)</td>
<td>3.20 (.42)</td>
<td>3.26 (.42)</td>
<td>28.62 ***</td>
<td>A &gt; L, W &gt; B</td>
</tr>
<tr>
<td>Evaluation 3rd</td>
<td>3.20 (.44)</td>
<td>3.11 (.46)</td>
<td>3.22 (.43)</td>
<td>3.29 (.43)</td>
<td>33.32 ***</td>
<td>A &gt; L, W &gt; B</td>
</tr>
<tr>
<td>Evaluation 5th</td>
<td>3.20 (.44)</td>
<td>3.12 (.45)</td>
<td>3.21 (.43)</td>
<td>3.28 (.44)</td>
<td>19.78 ***</td>
<td>A &gt; L, W &gt; B</td>
</tr>
<tr>
<td>Warmth K</td>
<td>3.53 (.31)</td>
<td>3.49 (.37)</td>
<td>3.47 (.38)</td>
<td>3.39 (.42)</td>
<td>74.52 ***</td>
<td>W &gt; B &gt; L &gt; A</td>
</tr>
<tr>
<td>Warmth 3rd</td>
<td>3.55 (.35)</td>
<td>3.46 (.39)</td>
<td>3.54 (.34)</td>
<td>3.50 (.37)</td>
<td>28.13 ***</td>
<td>W &gt; B, A; L &gt; B</td>
</tr>
<tr>
<td>Spanking K</td>
<td>1.10 (.80)</td>
<td>1.41 (.91)</td>
<td>1.18 (.87)</td>
<td>1.01 (.85)</td>
<td>109.66 ***</td>
<td>B &gt; L &gt; W &gt; A</td>
</tr>
<tr>
<td>Spanking 3rd</td>
<td>0.94 (.64)</td>
<td>1.13 (.77)</td>
<td>0.92 (.65)</td>
<td>1.01 (.74)</td>
<td>39.77 ***</td>
<td>B &gt; W, L, A; A &gt; L</td>
</tr>
<tr>
<td>Spanking 5th</td>
<td>0.91 (.59)</td>
<td>1.09 (.69)</td>
<td>0.86 (.64)</td>
<td>0.89 (.70)</td>
<td>38.19 ***</td>
<td>B &gt; W, L, A; W &gt; L</td>
</tr>
</tbody>
</table>
Longitudinal (bidirectional) relations between parenting dimensions and child outcomes

Next, analyses were done to examine longitudinally the bidirectional associations of parenting dimensions with measures of children’s socioemotional and academic outcomes from Kindergarten through 5th grade. The longitudinal model consisted of cross-lagged structural paths examining (1) stability estimates of parenting dimensions and child outcomes across time; (2) cross-lagged structural paths from prior parenting dimensions to later child outcomes; and (3) cross-lagged structural paths from prior child outcomes to later parenting dimensions. In general, parental warmth was associated with better child outcomes (see Figures 5a-e). Parental warmth in Kindergarten also predicted fewer externalizing and internalizing behaviors in 3rd grade. More externalizing and internalizing behaviors in Kindergarten predicted less warmth in 3rd grade. Parental warmth in Kindergarten was associated with better approaches to learning behaviors and higher reading scores in 3rd grade. Similarly, better approaches to learning behaviors and higher reading and math scores predicted more parental warmth in 3rd grade.
Figure 5a-e. *Parental warmth and child outcomes*

5a. Parental warmth and externalizing behaviors.

5b. Parental warmth and internalizing behaviors.

5c. Parental warmth and approaches to learning behaviors.

5d. Parental warmth and standardized reading scores.

5e. Parental warmth and standardized math scores.
A similar pattern of longitudinal associations was observed between parental evaluations and children’s academic and socioemotional outcomes at all four points of measurement (see Figures 6a-e). As expected, more favorable parent evaluations predicted fewer externalizing and internalizing behaviors at a future timepoint. In turn, more externalizing and internalizing behaviors predicted unfavorable parent evaluations at a later time. More favorable parent evaluations also predicted greater future academic achievement (better approaches to learning behaviors, higher reading scores, and higher math scores) at a subsequent timepoint. In turn, better approaches to learning behaviors and higher reading and math scores led to more favorable parent evaluations at a future timepoint.
6a. Parent evaluation and externalizing behaviors.

6b. Parent evaluation and internalizing behaviors.

6c. Parent evaluation and approaches to learning behaviors.

6d. Parental evaluation and standardized reading scores.

6e. Parent evaluation and standardized math scores.
The hypotheses regarding longitudinal associations between corporal punishment and children’s academic and socioemotional outcomes from Kindergarten, 3rd grade, and 5th grade were generally supported (see Figures 7a-e). As expected, more frequent spanking predicted more externalizing and internalizing behaviors at a future timepoint. In turn, externalizing and internalizing behaviors predicted more spanking at a future timepoint. More frequent use of corporal punishment predicted worse future academic achievement (poorer approaches to learning behaviors, lower reading and math scores). In turn, lower academic achievement led to more frequent spanking at a future timepoint.
7a. Parent spanking and externalizing behaviors.

7b. Parent spanking and internalizing behaviors.

7c. Parent spanking and approaches to learning behaviors.

7d. Parent spanking and standardized reading scores.

7e. Parent spanking and standardized math scores.
Ethnic invariance analyses

The next set of analyses examined ethnic differences in the association between parenting and child outcomes, both concurrently and longitudinally. To assess whether the modelled paths between parenting dimensions and child outcomes differed significantly across ethnic groups, unconstrained and constrained models were tested and compared. Significant differences in model fit indices between the unconstrained and constrained models would suggest significant ethnic differences in the associations between parenting dimensions and child outcomes. The results are described in detail below.

As expected, parental warmth was more important for the socioemotional outcomes of White and Black children across the several timepoints. Parental warmth in Kindergarten predicted lower externalizing behaviors in 3rd grade, more so Blacks than for Asians and Latinos. Fewer externalizing behaviors, in turn, led to higher parental warmth, more so for White students than for Asian students. Similarly, parental warmth in Kindergarten predicted lower internalizing behaviors in 3rd grade, more so for Whites than for Latinos. Similarly,

Academic achievement followed a similar pattern. Better approaches of children to learning in Kindergarten predicted higher parental warmth in 3rd grade, more so for Blacks, Whites, and Latinos than for Asians. In terms of standardized reading and math scores, higher parental warmth in Kindergarten predicted higher reading scores in 3rd grade, more for Blacks, Latinos, and Asians than for Whites. For standardized math scores, however, the association between parental warmth in Kindergarten and math in 3rd grade was stronger for Blacks than it was for Asians. In turn, higher reading and math scores in Kindergarten led to higher parental warmth in 3rd grade more so for Blacks than for Asians. Higher math scores in Kindergarten also led to higher parental warmth in 3rd grade, and this association was stronger for Blacks than for
Whites. See Table 3 and Appendix B for summaries of ethnic differences in the associations and the stability estimates, respectively.
### Table 3.

**Ethnic differences in longitudinal associations between parental warmth and child outcomes**

<table>
<thead>
<tr>
<th>Parental warmth &amp; child outcomes</th>
<th>White</th>
<th>Black</th>
<th>Latino</th>
<th>Asian</th>
<th>Delta Chi-square (p &lt; .05)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( b ) (SE)</td>
<td>( b ) (SE)</td>
<td>( b ) (SE)</td>
<td>( b ) (SE)</td>
<td></td>
</tr>
<tr>
<td>Bidirectional longitudinal estimates (Externalizing):</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Warmth (K) ( \rightarrow ) Externalizing (3rd)</td>
<td>-0.09 (.02)***</td>
<td>-0.16 (.05)**</td>
<td>-0.03 (.03)</td>
<td>-0.02 (.04)</td>
<td>B &gt; A, L</td>
</tr>
<tr>
<td>Externalizing (K) ( \rightarrow ) Warmth (3rd)</td>
<td>-0.06 (.01)***</td>
<td>-0.05 (.01)**</td>
<td>-0.04 (.01)***</td>
<td>-0.01 (.03)</td>
<td>W &gt; A</td>
</tr>
<tr>
<td>Bidirectional longitudinal estimates (Internalizing):</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Warmth (K) ( \rightarrow ) Internalizing (3rd)</td>
<td>-0.09 (.02)***</td>
<td>-0.09 (.04)*</td>
<td>0.00 (.03)</td>
<td>-0.07 (.04)</td>
<td></td>
</tr>
<tr>
<td>Internalizing (K) ( \rightarrow ) Warmth (3rd)</td>
<td>-0.02 (.01)*</td>
<td>-0.02 (.02)</td>
<td>-0.02 (.01)</td>
<td>0.00 (.03)</td>
<td></td>
</tr>
<tr>
<td>Bidirectional longitudinal estimates (Learning(^a)):</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Warmth (K) ( \rightarrow ) Learning(^a) (3rd)</td>
<td>0.05 (.02)*</td>
<td>0.14 (.05)**</td>
<td>0.03 (.04)</td>
<td>0.06 (.05)</td>
<td></td>
</tr>
<tr>
<td>Learning(^a) (K) ( \rightarrow ) Warmth (3rd)</td>
<td>0.04 (.01)***</td>
<td>0.06 (.01)***</td>
<td>0.03 (.01)</td>
<td>-0.02 (.02)</td>
<td>W, B, L &gt; A</td>
</tr>
<tr>
<td>Bidirectional longitudinal estimates (Reading scores):</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Warmth (K) ( \rightarrow ) Reading (3rd)</td>
<td>1.17 (.83)</td>
<td>4.56 (1.37)***</td>
<td>4.81 (1.27)***</td>
<td>5.62 (1.84)***</td>
<td>L, A, B &gt; W</td>
</tr>
<tr>
<td>Reading (K) ( \rightarrow ) Warmth (3rd)</td>
<td>0.001 (.00)***</td>
<td>0.002 (.00)***</td>
<td>0.001 (.00)</td>
<td>0.00 (.00)</td>
<td>B &gt; A</td>
</tr>
<tr>
<td>Bidirectional longitudinal estimates (Math scores):</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Warmth (K) ( \rightarrow ) Math (3rd)</td>
<td>-0.30 (.62)</td>
<td>2.84 (1.05)**</td>
<td>0.04 (.90)</td>
<td>-0.82 (1.63)</td>
<td>B &gt; W, L</td>
</tr>
<tr>
<td>Math (K) ( \rightarrow ) Warmth (3rd)</td>
<td>0.001 (.00)***</td>
<td>0.003 (.01)***</td>
<td>0.002 (.01)***</td>
<td>0.00 (.01)</td>
<td>B &gt; W, A</td>
</tr>
</tbody>
</table>

\(*p < .05, **p < .01, ***p < .001\)

**Note:** A = Asian; B = Black; L = Latino; W = White

**Note:** \(^a\) Learning = approaches to learning
Higher parental evaluations were expected to predict better concurrent and future socioemotional outcomes and higher concurrent and future academic achievement, more so for Asian Americans, followed by White, Latino, and Black children. In turn, better socioemotional and higher academic outcomes among students were expected to predict higher parental evaluations at a future timepoint, adjusting for the initial measure of parental evaluations, more so for Asian Americans, followed by the other three ethnic groups.

However, contrary to expectations, parental evaluation was more important for White and Black students’ outcomes (see Table 4) than for those of Latinos and Asians. More favorable parent evaluations in Kindergarten predicted fewer externalizing behaviors in 1\textsuperscript{st} grade more so for White and Black children than for Asians. More positive parental evaluations predicted lower externalizing behaviors in 3\textsuperscript{rd} grade more strongly for White children than for Black and Latino children. In turn, fewer externalizing behaviors in Kindergarten predicted more favorable evaluations for White children than for Black children. Similarly, fewer externalizing behaviors in 1\textsuperscript{st} grade, and 3\textsuperscript{rd} grade predicted more favorable evaluations more strongly for White children than for Latinos. Similar patterns were detected with internalizing behaviors, such that more favorable parent evaluations in Kindergarten, 1\textsuperscript{st} grade, and 3\textsuperscript{rd} grade predicted fewer internalizing behaviors at a future timepoint more so for White and Black children than for Asians. Similarly, more satisfactory parental evaluations in Kindergarten predicted fewer internalizing behaviors in 1\textsuperscript{st} grade more so for Latinos than for Asians, and more favorable parent evaluations in 3\textsuperscript{rd} grade predicted fewer internalizing behaviors in 5\textsuperscript{th} grade, more so for Blacks than for Asians. In turn, fewer internalizing behaviors in 1\textsuperscript{st} grade predicted more favorable evaluations in 3\textsuperscript{rd} grade more so for White and Black children than for Asian children.
Parental evaluation was also more important for the academic achievement of White and Black students than it was for Asian and Latino students. More favorable parental evaluations in Kindergarten led to better approaches to learning and better math scores at a future timepoint more strongly for White children than for Latino and Asian children. The association between reading scores and approaches to learning behaviors was also stronger for White children than for Black children. Similarly, more positive parental evaluations in 1st grade and 3rd grade led to better approaches to learning behaviors in 3rd and 5th grade, respectively. The associations between more positive parental evaluations and better reading and math scores were stronger for White students than for Black and Latino students. More favorable parental evaluations in 3rd grade led to better math scores in 5th grade more strongly for White children than for Asian children. In turn, better approaches to learning behaviors in 1st grade predicted more favorable evaluations in 3rd grade more so for White than for Latino children. Likewise, better approaches to learning behaviors in 1st grade predicted more favorable parental evaluations in 3rd grade, more so for Blacks than for Latinos and Asians. Better reading and math scores in Kindergarten predicted more satisfactory evaluations in 1st grade more strongly for Blacks than for Asians and Whites. Better reading scores in Kindergarten also predicted more satisfactory parental evaluations in 1st grade more strongly for Blacks than for Latinos. Likewise, better reading scores in 1st grade predicted more favorable parental evaluations in 3rd grade more so for Black than for Whites, Asians, and Latinos. Table 4 and Appendix C present summaries of ethnic differences in the associations and the stability estimates, respectively.
Table 4. Ethnic differences in longitudinal associations between parent evaluations and child outcomes

<table>
<thead>
<tr>
<th>Parent evaluation &amp; child outcomes</th>
<th>White</th>
<th>Black</th>
<th>Latino</th>
<th>Asian</th>
<th>Delta Chi-square (p &lt; .05)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$b$ (SE)</td>
<td>$b$ (SE)</td>
<td>$b$ (SE)</td>
<td>$b$ (SE)</td>
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<tr>
<td><strong>Bidirectional longitudinal estimates (Externalizing):</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluation (K) → Externalizing (1$^{st}$)</td>
<td>-.14 (.01)*****</td>
<td>-.15 (.04)*****</td>
<td>-.08 (.03)**</td>
<td>-.04 (.04)</td>
<td>W, B &gt; A</td>
</tr>
<tr>
<td>Evaluation (1$^{st}$) → Externalizing (3$^{rd}$)</td>
<td>-.15 (.02)*****</td>
<td>-.03 (.05)</td>
<td>-.07 (.03)*</td>
<td>-.11 (.05)*</td>
<td>W &gt; L, B</td>
</tr>
<tr>
<td>Evaluation (3$^{rd}$) → Externalizing (5$^{th}$)</td>
<td>-.09 (.02)*****</td>
<td>-.06 (.04)</td>
<td>-.07 (.03)*</td>
<td>-.03 (.04)</td>
<td>--</td>
</tr>
<tr>
<td>Externalizing (K) → Evaluation (1$^{st}$)</td>
<td>-.06 (.01)*****</td>
<td>-.04 (.01)*****</td>
<td>-.06 (.01)*****</td>
<td>-.07 (.03)**</td>
<td>W &gt; B</td>
</tr>
<tr>
<td>Externalizing (1$^{st}$) → Evaluation (3$^{rd}$)</td>
<td>-.09 (.01)*****</td>
<td>-.08 (.02)*****</td>
<td>-.05 (.01)*****</td>
<td>-.04 (.03)</td>
<td>W &gt; L</td>
</tr>
<tr>
<td>Externalizing (3$^{rd}$) → Evaluation (5$^{th}$)</td>
<td>-.08 (.01)*****</td>
<td>-.05 (.02)*****</td>
<td>-.04 (.02)*****</td>
<td>-.03 (.04)</td>
<td>W &gt; L</td>
</tr>
<tr>
<td><strong>Bidirectional longitudinal estimates (Internalizing):</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluation (K) → Internalizing (1$^{st}$)</td>
<td>-.15 (.01)*****</td>
<td>-.13 (.03)*****</td>
<td>-.17 (.03)*****</td>
<td>-.05 (.04)</td>
<td>W, L &gt; A</td>
</tr>
<tr>
<td>Evaluation (1$^{st}$) → Internalizing (3$^{rd}$)</td>
<td>-.22 (.02)*****</td>
<td>-.17 (.04)*****</td>
<td>-.12 (.03)*****</td>
<td>-.10 (.05)*</td>
<td>W &gt; L, A</td>
</tr>
<tr>
<td>Evaluation (3$^{rd}$) → Internalizing (5$^{th}$)</td>
<td>-.18 (.02)*****</td>
<td>-.21 (.04)*****</td>
<td>-.18 (.03)*****</td>
<td>-.07 (.04)</td>
<td>W, B &gt; A</td>
</tr>
<tr>
<td>Internalizing (K) → Evaluation (1$^{st}$)</td>
<td>-.04 (.01)*****</td>
<td>-.05 (.01)*****</td>
<td>-.05 (.02)*****</td>
<td>-.08 (.03)**</td>
<td>--</td>
</tr>
<tr>
<td>Internalizing (1$^{st}$) → Evaluation (3$^{rd}$)</td>
<td>-.08 (.01)*****</td>
<td>-.09 (.02)*****</td>
<td>-.05 (.02)*****</td>
<td>.00 (.04)</td>
<td>W, B &gt; A</td>
</tr>
<tr>
<td>Internalizing (3$^{rd}$) → Evaluation (5$^{th}$)</td>
<td>-.06 (.01)*****</td>
<td>-.05 (.02)*****</td>
<td>-.07 (.02)*****</td>
<td>-.06 (.04)</td>
<td>--</td>
</tr>
<tr>
<td><strong>Bidirectional longitudinal estimates (Learning$^{a}$):</strong></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Evaluation (K) → Learning$^{a}$ (1$^{st}$)</td>
<td>.25 (.02)*****</td>
<td>.21 (.04)*****</td>
<td>.18 (.03)*****</td>
<td>.13 (.05)**</td>
<td>W &gt; L, A</td>
</tr>
<tr>
<td>Evaluation (1$^{st}$) → Learning$^{a}$ (3$^{rd}$)</td>
<td>.25 (.02)*****</td>
<td>.07 (.05)</td>
<td>.17 (.04)*****</td>
<td>.15 (.06)**</td>
<td>W &gt; B</td>
</tr>
<tr>
<td>Evaluation (3$^{rd}$) → Learning$^{a}$ (5$^{th}$)</td>
<td>.23 (.02)*****</td>
<td>.11 (.05) **</td>
<td>.19 (.04)*****</td>
<td>.13 (.05) *</td>
<td>W &gt; B</td>
</tr>
<tr>
<td>Learning$^{a}$ (K) → Evaluation (1$^{st}$)</td>
<td>.10 (.01)***</td>
<td>.09 (.01)***</td>
<td>.10 (.01)***</td>
<td>.12 (.02)***</td>
<td>--</td>
</tr>
<tr>
<td>Learning$^{a}$ (1$^{st}$) → Evaluation (3$^{rd}$)</td>
<td>.12 (.01)***</td>
<td>.15 (.02)***</td>
<td>.09 (.01)***</td>
<td>.07 (.03)**</td>
<td>W, B &gt; L; B &gt; A</td>
</tr>
<tr>
<td>Learning$^{a}$ (3$^{rd}$) → Evaluation (5$^{th}$)</td>
<td>.11 (.01)***</td>
<td>.11 (.02)***</td>
<td>.10 (.01)***</td>
<td>.10 (.03)***</td>
<td>--</td>
</tr>
<tr>
<td><strong>Bidirectional longitudinal estimates (Reading scores):</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluation (K) → Reading (1$^{st}$)</td>
<td>7.64 (.43)***</td>
<td>4.74 (.70)***</td>
<td>3.38 (.77)***</td>
<td>5.93 (.41)***</td>
<td>W &gt; L, B</td>
</tr>
<tr>
<td>Evaluation (1$^{st}$) → Reading (3$^{rd}$)</td>
<td>11.87 (.58)***</td>
<td>5.76 (1.15)***</td>
<td>5.92 (1.00)***</td>
<td>6.40 (1.56)***</td>
<td>W &gt; A, L, B</td>
</tr>
<tr>
<td>Evaluation (3$^{rd}$) → Reading (5$^{th}$)</td>
<td>4.26 (.44)***</td>
<td>3.39 (1.12)***</td>
<td>2.49 (.80)**</td>
<td>2.67 (1.37) *</td>
<td>--</td>
</tr>
<tr>
<td>Reading (K) → Evaluation (1$^{st}$)</td>
<td>.004 (.00)***</td>
<td>.006 (.00)***</td>
<td>.004 (.00)***</td>
<td>.003 (.00)***</td>
<td>B &gt; W, A</td>
</tr>
<tr>
<td>Reading (1$^{st}$) → Evaluation (3$^{rd}$)</td>
<td>.002 (.00)***</td>
<td>.004 (.00)***</td>
<td>.002 (.00)***</td>
<td>.002 (.00)***</td>
<td>B &gt; W, A, L</td>
</tr>
<tr>
<td>Reading (3rd) ➔ Evaluation (5th)</td>
<td>.004 (.00) ***</td>
<td>.003(.00) ***</td>
<td>.003 (.00) ***</td>
<td>.004(.00) ***</td>
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<tr>
<td>Bidirectional longitudinal estimates (Math scores):</td>
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<td></td>
</tr>
<tr>
<td>Evaluation (K) ➔ Math (1st)</td>
<td>4.39 (.34) ***</td>
<td>3.09 (.51) ***</td>
<td>2.41 (.55) ***</td>
<td>2.01 (1.05)</td>
<td>W &gt; L, B, A</td>
</tr>
<tr>
<td>Evaluation (1st) ➔ Math (3rd)</td>
<td>6.65 (.47) ***</td>
<td>3.40 (.91) ***</td>
<td>4.27 (.79) ***</td>
<td>4.05 (1.44) **</td>
<td>W &gt; L, B</td>
</tr>
<tr>
<td>Evaluation (3rd) ➔ Math (5th)</td>
<td>3.44 (.38) ***</td>
<td>1.73 (.99)</td>
<td>2.56 (.74) ***</td>
<td>.96 (1.24)</td>
<td>W &gt; A</td>
</tr>
<tr>
<td>Math (K) ➔ Evaluation (1st)</td>
<td>.005 (.00) ***</td>
<td>.008(.00) ***</td>
<td>.006 (.00) ***</td>
<td>.004(.00) ***</td>
<td>B &gt; W, A</td>
</tr>
<tr>
<td>Math (1st) ➔ Evaluation (3rd)</td>
<td>.003 (.00) ***</td>
<td>.005(.00) ***</td>
<td>.003 (.00) ***</td>
<td>.003(.00) ***</td>
<td>--</td>
</tr>
<tr>
<td>Math (3rd) ➔ Evaluation (5th)</td>
<td>.004 (.00) ***</td>
<td>.003(.00) ***</td>
<td>.003 (.00) ***</td>
<td>.004(.00) ***</td>
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</tr>
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</table>

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

Note: A = Asian; B = Black; L = Latino; W = White

Note: a Learning = approaches to learning
Frequent use of corporal punishment was expected to predict poorer socioemotional and lower academic achievement outcomes more so for Whites than for the other three ethnic groups. In turn, poorer socioemotional and lower academic outcomes among students were expected to predict more use of corporal punishment by parents at a future timepoint, adjusting for the initial measure of corporal punishment. It was expected that this would be this association would be strongest for Whites, followed by the other three ethnic groups. Results were mixed (see Table 5).

In terms of socioemotional development, there were ethnic differences in the association between spanking and child externalizing behaviors. More frequent spanking led to more externalizing behaviors more strongly for White, Latino, and Black children than for Asian children. There were no ethnic differences in the path from child externalizing behavior to subsequent spanking. However, the association between spanking and child internalizing behaviors was nonsignificant for all groups, with the exception of the path from spanking in Kindergarten to internalizing behaviors at third grade for Whites. More frequent spanking in Kindergarten led to worse approaches to learning behaviors in 3rd grade more so for Whites than for Asians, for whom this path was not significant. In turn, better approaches to learning behaviors in Kindergarten led to less spanking in 3rd grade for Whites and Blacks, but not for Latinos and Asians. Higher reading scores in 3rd grade was associated with less spanking in 5th grade for Whites, Blacks, and Latinos, but not for Asians. Finally, the longitudinal relationship between standardized reading and math scores and corporal punishment was significantly negative for Blacks, but mostly nonsignificant for the other three ethnic groups. See Table 5 and Appendix D for summaries of ethnic differences in the associations and the stability estimates, respectively.
Table 5. Ethnic differences in longitudinal associations between corporal punishment and child outcomes

<table>
<thead>
<tr>
<th>Parent spanking &amp; child outcomes</th>
<th>White</th>
<th>Black</th>
<th>Latino</th>
<th>Asian</th>
<th>Delta Chi-square (p &lt; .05)</th>
</tr>
</thead>
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<tr>
<td></td>
<td>( b (SE) )</td>
<td>( b (SE) )</td>
<td>( b (SE) )</td>
<td>( b (SE) )</td>
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</tr>
<tr>
<td><strong>Bidirectional longitudinal estimates (Externalizing):</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spanking (K) ( \rightarrow ) Externalizing (3rd)</td>
<td>0.06 (.01)***</td>
<td>0.07 (.02)***</td>
<td>0.04 (.02)**</td>
<td>-0.03 (.02)</td>
<td>W, L, B &gt; A</td>
</tr>
<tr>
<td>Spanking (3rd) ( \rightarrow ) Externalizing (5th)</td>
<td>0.01 (.01)</td>
<td>0.02 (.02)</td>
<td>0.03 (.02)</td>
<td>0.04 (.03)</td>
<td>--</td>
</tr>
<tr>
<td>Externalizing (K) ( \rightarrow ) Spanking (3rd)</td>
<td>0.04 (.01)***</td>
<td>0.07 (.03)*</td>
<td>0.03 (.02)</td>
<td>0.02 (.06)</td>
<td>--</td>
</tr>
<tr>
<td>Externalizing (3rd) ( \rightarrow ) Spanking (5th)</td>
<td>0.03 (.01)*</td>
<td>0.09 (.03)**</td>
<td>0.05 (.03)</td>
<td>0.04 (.07)</td>
<td>--</td>
</tr>
<tr>
<td><strong>Bidirectional longitudinal estimates (Internalizing):</strong></td>
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<td></td>
</tr>
<tr>
<td>Spanking (K) ( \rightarrow ) Internalizing (3rd)</td>
<td>0.04 (.01)***</td>
<td>0.03 (.02)</td>
<td>0.02 (.02)</td>
<td>0.00 (.02)</td>
<td>--</td>
</tr>
<tr>
<td>Spanking (3rd) ( \rightarrow ) Internalizing (5th)</td>
<td>0.01 (.01)</td>
<td>0.02 (.02)</td>
<td>0.02 (.02)</td>
<td>0.05 (.03)</td>
<td>--</td>
</tr>
<tr>
<td>Internalizing (K) ( \rightarrow ) Spanking (3rd)</td>
<td>0.01 (.01)</td>
<td>0.05 (.04)</td>
<td>0.02 (.03)</td>
<td>0.05 (.06)</td>
<td>--</td>
</tr>
<tr>
<td>Internalizing (3rd) ( \rightarrow ) Spanking (5th)</td>
<td>0.02 (.02)</td>
<td>0.04 (.04)</td>
<td>0.05 (.03)</td>
<td>0.02 (.08)</td>
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</tr>
<tr>
<td><strong>Bidirectional longitudinal estimates (Learning(^a)):</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Spanking (K) ( \rightarrow ) Learning(^a) (3rd)</td>
<td>-0.06 (.01)***</td>
<td>-0.04 (.02)*</td>
<td>-0.05 (.02)**</td>
<td>0.00 (.03)</td>
<td>W &gt; A</td>
</tr>
<tr>
<td>Spanking (3rd) ( \rightarrow ) Learning(^a) (5th)</td>
<td>0.01 (.01)</td>
<td>-0.02 (.03)</td>
<td>-0.01 (.02)</td>
<td>-0.02 (.03)</td>
<td>--</td>
</tr>
<tr>
<td>Learning(^a) (K) ( \rightarrow ) Spanking (3rd)</td>
<td>-0.02 (.01)*</td>
<td>-0.11 (.03)***</td>
<td>-0.02 (.02)</td>
<td>0.00 (.05)</td>
<td>B &gt; L, W</td>
</tr>
<tr>
<td>Learning(^a) (3rd) ( \rightarrow ) Spanking (5th)</td>
<td>0.00 (.01)</td>
<td>-0.06 (.03)**</td>
<td>-0.04 (.02)</td>
<td>-0.04 (.05)</td>
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<tr>
<td><strong>Bidirectional longitudinal estimates (Reading scores):</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spanking (K) ( \rightarrow ) Reading (3rd)</td>
<td>-1.56 (.31)***</td>
<td>-1.42 (.54)***</td>
<td>-2.17 (.55)***</td>
<td>-5.0 (.92)</td>
<td>--</td>
</tr>
<tr>
<td>Spanking (3rd) ( \rightarrow ) Reading (5th)</td>
<td>-0.4 (.27)</td>
<td>-0.7 (.61)</td>
<td>-3.3 (.52)</td>
<td>-0.2 (.48)</td>
<td>--</td>
</tr>
<tr>
<td>Reading (K) ( \rightarrow ) Spanking (3rd)</td>
<td>-0.0002 (.00)</td>
<td>-0.006 (.00)***</td>
<td>0.007 (.00)</td>
<td>0.002 (.00)</td>
<td>B &gt; A, L, W</td>
</tr>
<tr>
<td>Reading (3rd) ( \rightarrow ) Spanking (5th)</td>
<td>-0.0005 (.00)</td>
<td>-0.002 (.00)*</td>
<td>-0.0008 (.00)</td>
<td>0.002 (.00)*</td>
<td>A &gt; B, L, W</td>
</tr>
<tr>
<td><strong>Bidirectional longitudinal estimates (Math scores):</strong></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Spanking (K) ( \rightarrow ) Math (3rd)</td>
<td>-0.59 (.24)*</td>
<td>-1.05 (.42)*</td>
<td>-1.14 (.39)**</td>
<td>-1.08 (.80)</td>
<td>--</td>
</tr>
<tr>
<td>Spanking (3rd) ( \rightarrow ) Math (5th)</td>
<td>-0.75 (.24)**</td>
<td>-1.24 (.54)**</td>
<td>-0.31 (.48)</td>
<td>0.37 (.71)</td>
<td>--</td>
</tr>
<tr>
<td>Math (K) ( \rightarrow ) Spanking (3rd)</td>
<td>-0.0006 (.00)</td>
<td>-0.008 (.00)***</td>
<td>-0.001 (.00)</td>
<td>0.001 (.00)</td>
<td>B &gt; A, L, W</td>
</tr>
<tr>
<td>Math (3rd) ( \rightarrow ) Spanking (5th)</td>
<td>-0.0008 (.00)*</td>
<td>-0.004 (.00)***</td>
<td>-0.001 (.00)*</td>
<td>0.002 (.00)</td>
<td>B &gt; L, W; A &gt; W, L, B</td>
</tr>
</tbody>
</table>

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

**Note:** A = Asian; B = Black; L = Latino; W = White

**Note:** \(^a\) Learning = approaches to learning
Control variable analyses

The next set of analyses examined whether ethnic differences remained significant when the control and potentially explanatory variables (i.e. gender, SES, and generational status) were added to the model. Analyses were conducted in several steps. The first step included all of the control and explanatory variables in the final SEM model. If these variables accounted for the ethnic differences discussed in the previous section, the new analyses should no longer show ethnic differences (i.e., a non-significant delta Chi-square between the constrained and the unconstrained models). Thus, additional analyses were run to investigate which of the three control and potentially explanatory variables could possibly explain the ethnic differences described above. In these analyses, I included the control and potentially explanatory variables one at a time. If ethnic differences remained after all three control and potentially explanatory variables were included, it would signify that these variables could not explain ethnic differences, and therefore, no follow-up analyses were conducted. For Whites and Blacks, the following models examining parental warmth and child outcomes (i.e. warmth and externalizing and internalizing behaviors, warmth and approaches to learning behaviors, warmth and standardized reading and math scores) remained significant. However, five of the cross-lagged paths examining ethnic differences were not significant after adjusting for SES, generational status, and gender: the path from parental warmth in Kindergarten to externalizing behaviors in 1st grade; the path from externalizing behaviors in Kindergarten to parental warmth in 1st grade; the path from parental warmth in Kindergarten to standardized reading scores in 1st grade; the path from parental warmth in Kindergarten to math scores in 1st grade; and the path from standardized math and reading scores in Kindergarten to parent warmth in 3rd grade. Additional analyses were performed to examine the contribution of the control variables to those paths in
more detail by examining the effect of each control variable separately. Ethnic differences remained significant for all of the models only when gender, or only when generational status, were included in the model. However, the models were not significant when SES was included, suggesting that SES could have been a potential explanatory variable that influenced the results. See Table 6 for a summary of ethnic differences in the associations between parental warmth and child outcomes, adjusting for SES, gender, and generational status.
Table 6. Ethnic differences in longitudinal associations between parental warmth and child outcomes adjusting for SES, gender, and generational status

<table>
<thead>
<tr>
<th>Parental warmth &amp; child outcomes</th>
<th>Ethnic differences</th>
<th>Adjusting for SES, gender, generational status</th>
<th>Adjusting for gender</th>
<th>Adjusting for SES</th>
<th>Adjusting for generational status</th>
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<tr>
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<tr>
<td><strong>Bidirectional longitudinal estimates (Externalizing):</strong></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Warmth (K) ➔ Externalizing (3rd)</td>
<td>B &gt; L</td>
<td>2.74</td>
<td>4.91 *</td>
<td>2.55</td>
<td>4.05 *</td>
</tr>
<tr>
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<td>4.54 *</td>
<td>2.78</td>
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*p < .05, ** p < .01, *** p < .001

Note: A = Asian; B = Black; L = Latino; W = White

Note: a Learning = approaches to learning
The delta chi-square values for the vast majority of the models examining parental evaluation and child outcomes (i.e. evaluation and externalizing and internalizing behaviors, evaluation and approaches to learning behaviors, evaluation and standardized math scores) remained significant for Whites and Blacks after including the control variables. Ethnic differences remained for Whites and Blacks for all of the models examining the cross-lagged paths of parental evaluation and reading scores. However, ethnic differences in paths were not significant for eight of the cross-lagged paths, after adjusting for SES, generational status, and gender: i.e, the path from parental evaluation in Kindergarten and 1st grade to externalizing and internalizing behaviors in 1st grade and 3rd grade respectively; from externalizing behaviors in 3rd grade to evaluations in 5th grade; from, parental evaluation in Kindergarten to learning in 1st grade; and from parental evaluation in 3rd grade to standardized math scores in 5th grade. Additional analyses were performed to examine the contribution of the control variables to those paths in more detail by examining the effect of removing each control variable, one at a time.

Ethnic differences remained significant when each control variable was examined separately for the following models: the model relating parental evaluation to externalizing, internalizing, and approaches to learning behaviors, and the model examining the relations between internalizing behaviors in 1st grade to parental evaluation in 3rd grade. The association between internalizing behaviors in 1st grade to parental evaluation in 3rd grade, and between and parental evaluation in 3rd grade and math in 5th grade, did not remain significant for Whites, when adjusting for gender only or SES only. However, ethnic differences remained significant for the model analyzing the relationship between evaluation 3rd grade to math in 5th grade, and there was a trend towards significance for the model examining internalizing behaviors in 1st grade to parental evaluation in 3rd grade when generational status was included.
These results suggest that the associations between parental evaluation and internalizing behaviors and math scores remained stronger for Whites than for Asians, after adjusting for generational status. The ethnic differences for the remaining four cross-lagged pathways (parental evaluation in 1st grade to externalizing behaviors in 3rd grade, externalizing behaviors in 3rd grade to parental evaluation in 5th grade, and parental evaluation in Kindergarten to learning in 1st grade) remained significant for Whites, even after adjusting for gender separately and for generational status separately. However, the pathways were not significant when SES was included in the model, suggesting that SES could have explained the ethnic differences. See Table 7 for a summary of ethnic differences in the associations between parental evaluation of their child and child outcomes, adjusting for SES, gender, and generational status.
Table 7. Ethnic differences in longitudinal associations between parent evaluations and child outcomes adjusting for SES, gender, and generational status

<table>
<thead>
<tr>
<th>Parent evaluation &amp; child outcomes</th>
<th>Ethnic differences</th>
<th>Adjusting for SES, gender, generational status</th>
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<th>Adjusting for SES</th>
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<td>3.73</td>
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<td>4.31 *</td>
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<td>2.75</td>
<td>5.63 *</td>
<td>2.38</td>
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<td>8.41 **</td>
<td>4.85 *</td>
<td>8.79 **</td>
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<td>2.21</td>
<td>4.36 *</td>
<td>3.17</td>
<td>5.46 *</td>
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<td>Evaluation (1&lt;sup&gt;st&lt;/sup&gt;) → Learning&lt;sup&gt;a&lt;/sup&gt; (3&lt;sup&gt;rd&lt;/sup&gt;)</td>
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### Table 7 (continued)

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

Note: A = Asian; B = Black; L = Latino; W = White

Note: * Learning = approaches to learning
Ethnic differences for the following models examining spanking and child outcomes (i.e. externalizing behaviors, approaches to learning behaviors, standardized reading and math scores) remained significant, after adjusting for SES, generational status, and gender. However, four of the cross-lagged paths examining ethnic differences were not significant after adjusting for SES, generational status, and gender: the path from spanking in Kindergarten to approaches to learning behaviors in 3rd grade, the path from approaches to learning behaviors in 3rd grade to spanking in 5th grade, and the path from standardized math scores in Kindergarten and 3rd grade to spanking in 3rd and 5th grade respectively. Control variables were included separately to examine the effect each had on the pathways. Ethnic differences for Latinos and Asians remained significant for all but one path (approaches to learning in 3rd grade to spanking in 5th grade) of the models when only gender or only generational status was included in the model. Ethnic differences were no longer significant when SES, gender, and generational status were included separately for the model examining approaches to learning in Kindergarten to spanking in 3rd grade. These results suggest that all of the control variables could have been potential confounding variables that influenced the pathways described above. See Table 8 for a summary of ethnic differences in the associations between spanking and child outcomes, adjusting for SES, gender, and generational status.
### Table 8. Ethnic differences in longitudinal associations between corporal punishment and child outcomes adjusting for SES, gender, and generational status

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<td>Spanking (3rd) ➔ Internalizing (5th)</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Internalizing (K) ➔ Spanking (3rd)</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Internalizing (3rd) ➔ Spanking (5th)</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td><em><em>Bidirectional longitudinal estimates (Learning</em>):</em>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spanking (K) ➔ Learning* (3rd)</td>
<td>W &gt; A</td>
<td>2.23</td>
<td>4.25 *</td>
<td>2.33</td>
<td>4.17 *</td>
</tr>
<tr>
<td>Spanking (3rd) ➔ Learning* (5th)</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Learning* (K) ➔ Spanking (3rd)</td>
<td>B &gt; L</td>
<td>4.40 *</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>B &gt; W</td>
<td>1.88</td>
<td>2.43</td>
<td>2.02</td>
<td>3.20</td>
</tr>
<tr>
<td><strong>Bidirectional longitudinal estimates (Reading scores):</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spanking (K) ➔ Reading (3rd)</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Spanking (3rd) ➔ Reading (5th)</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Reading (K) ➔ Spanking (3rd)</td>
<td>B &gt; A</td>
<td>5.41 *</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>B &gt; L</td>
<td>5.80 *</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>B &gt; W</td>
<td>8.15 *</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Reading (3rd) ➔ Spanking (5th)</td>
<td>A &gt; B</td>
<td>7.88 **</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>A &gt; L</td>
<td>8.82 **</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>A &gt; W</td>
<td>5.89 *</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td><strong>Bidirectional longitudinal estimates (Math scores):</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spanking (K) ➔ Math (3rd)</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Spanking (3rd) ➔ Math (5th)</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Math (K) ➔ Spanking (3rd)</td>
<td>B &gt; A</td>
<td>5.01 *</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>B &gt; L</td>
<td>3.28</td>
<td>7.85 **</td>
<td>3.42</td>
<td>7.63 **</td>
</tr>
<tr>
<td></td>
<td>B &gt; W</td>
<td>9.06 **</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Math (3rd) ➔ Spanking (5th)</td>
<td>A &gt; B</td>
<td>11.93 ***</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>A &gt; L</td>
<td>8.49 **</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>A &gt; W</td>
<td>5.77 *</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>B &gt; L</td>
<td>1.73</td>
<td>3.99 *</td>
<td>1.76</td>
<td>3.77 *</td>
</tr>
<tr>
<td></td>
<td>B &gt; W</td>
<td>5.06 *</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

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

**Note:** A = Asian; B = Black; L = Latino; W = White

**Note:** * Learning = approaches to learning
Developmental analyses

The final set of analyses examined developmental differences between parenting dimensions and child outcomes in each ethnic group. The effects of parenting were expected to be stronger in childhood than late childhood, with the developmental differences being greater for White children followed by Asian, Latino, and Black children. To assess whether the modelled paths between parenting dimensions and child outcomes differed significantly across time, unconstrained and constrained models were tested and compared among each ethnic group. Significant differences in model fit indices between the unconstrained and constrained models would suggest significant developmental differences in the associations between parenting dimensions and child outcomes.

Among Black students, there were five main developmental results between child outcomes, on the one hand, and parental evaluation and spanking. The effects of child outcomes on parent behaviors were stronger when children were younger for four results (reading and math with evaluation; reading and math with spanking). For example, younger children were more reactive than older children to parental spanking, such that their math and reading scores more strongly predicted spanking at a future time from Kindergarten to 3rd grade than from 3rd grade to 5th grade. Similar results were seen with respect to parental evaluation and child math and reading scores. Better academic scores led to more favorable parental evaluations more strongly when children were younger (Kindergarten to 1st grade) than when they were older (1st grade to 3rd grade and 3rd grade to 5th grade). However, the relationship between approaches to learning behaviors and parental evaluation was observed to be stronger when children were older than when they were younger. See Table 9 for a summary of developmental differences.
For Asians, developmental differences were stronger in late childhood than early childhood (see Table 10). The results show that at a younger age (Kindergarten to 3rd grade), spanking may have been less effective in decreasing externalizing behaviors. However, at an older age (3rd grade spanking to 5th grade externalizing behaviors), spanking exacerbated externalizing behaviors suggesting that parental influence was stronger in late childhood.

Among Latinos, the effects of child outcomes on parenting dimensions were stronger during early childhood than later childhood. For example, standardized math and reading scores predicted more favorable parental evaluations. This relationship was stronger earlier in childhood than later in childhood. There was also a tendency for favorable parental evaluations to predict higher reading scores more strongly when children were younger than when they were older. Similar to Black children, Latino children were more reactive to spanking at a younger age. Spanking resulted in lower reading scores more so at an earlier age (Kindergarten to 3rd grade) than at a later age (3rd to 5th grade). See Table 11 for a summary of developmental differences.

Developmental differences among White children were mixed (see Table 12). The relationship between spanking and child outcomes seemed to follow the general patterns seen in Latino and Black children. White children were more reactive to spanking across the outcomes during early childhood than later childhood. For example, spanking resulted in more externalizing and internalizing behaviors as well as lower approaches to learning behaviors and reading scores more so when children were younger (Kindergarten to 3rd grade) than when they were older (3rd to 5th grade). In general, there was a tendency of child outcomes’ association with parental evaluation to be stronger during early childhood. More favorable parental evaluations predicted better math and reading scores and lower externalizing behaviors more so during early childhood than later childhood. However, positive parental evaluations predicted lower
internalizing behaviors more strongly during late childhood. Most of the developmental differences in child outcomes as predictors of subsequent parental evaluation seemed to be stronger at a later age. For example, internalizing and externalizing behaviors predicted subsequent unfavorable parental evaluations more so from 3rd to 5th grade than from Kindergarten to 1st grade. Similarly, better approaches to learning behaviors predicted more satisfactory evaluations at later grade levels rather than earlier grade levels. One exception was the relationship between math scores and parental evaluations. Having better math scores predicted more favorable evaluations. This association was stronger at earlier grades (Kindergarten to 1st grade) than later grades (3rd grade to 5th grade).

Parent evaluations tended to have more of an impact on children’s externalizing and internalizing behaviors and math and reading scores from 1st grade to 3rd grade than at other time points, but these associations tended to decrease from 3rd grade to 5th grade for all of the child outcomes. These results suggest that as children get older, they tend to be less influenced by their parents. However, some child outcomes showed the opposite effect. For example, children’s approaches to learning behaviors and math scores tended to elicit more favorable evaluations as children advanced from Kindergarten to 5th grade. Similarly, the more externalizing and internalizing behaviors a child exhibited, the more parents were likely to give less favorable evaluations. Frequent spanking, on the other hand, had less of an impact on children as they grew older. For example, spanking in Kindergarten elicited lower learning and reading scores and more externalizing and internalizing behaviors in 3rd grade compared to the associations from 3rd to 5th grade.
Table 9. Developmental differences in parenting dimensions and child outcomes (Black)

<table>
<thead>
<tr>
<th>Parent dimensions &amp; child outcomes</th>
<th>Kindergarten → 1st grade</th>
<th>1st grade → 3rd grade</th>
<th>3rd grade → 5th grade</th>
<th>Delta Chi-square (p &lt; .05)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Learning</strong> → Evaluation</td>
<td>b (SE)</td>
<td>b (SE)</td>
<td>b (SE)</td>
<td>10.39, p = .06</td>
</tr>
<tr>
<td>Learning</td>
<td>.09 (.01)</td>
<td>.15 (.01)</td>
<td>.12 (.02)</td>
<td></td>
</tr>
<tr>
<td>Reading → Evaluation</td>
<td>.006 (.00)</td>
<td>.004 (.00)</td>
<td>.003 (.00)</td>
<td>11.46, p = .003</td>
</tr>
<tr>
<td>Math → Evaluation</td>
<td>.008 (.00)</td>
<td>.005 (.00)</td>
<td>.003 (.00)</td>
<td>22.15, p &lt; .001</td>
</tr>
</tbody>
</table>

*Note: a Learning = approaches to learning

Table 10. Developmental differences in parenting dimensions and child outcomes (Asian)

<table>
<thead>
<tr>
<th>Parent dimensions &amp; child outcomes</th>
<th>Kindergarten → 3rd grade</th>
<th>3rd grade → 5th grade</th>
<th>Delta Chi-square (p &lt; .05)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spanking → Externalizing behaviors</td>
<td>-.03 (.02)</td>
<td>.04 (.02)</td>
<td>4.93, p = .03</td>
</tr>
</tbody>
</table>

*Note: a Learning = approaches to learning

Table 11. Developmental differences in parenting dimensions and child outcomes (Latino)

<table>
<thead>
<tr>
<th>Parent dimensions &amp; child outcomes</th>
<th>Kindergarten → 1st grade</th>
<th>1st grade → 3rd grade</th>
<th>3rd grade → 5th grade</th>
<th>Delta Chi-square (p &lt; .05)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation → Reading</td>
<td>b (SE)</td>
<td>b (SE)</td>
<td>b (SE)</td>
<td>7.20, p = .03</td>
</tr>
<tr>
<td>Read → Evaluation</td>
<td>.004 (.00)</td>
<td>.002 (.00)</td>
<td>.003 (.00)</td>
<td>8.06, p = .02</td>
</tr>
<tr>
<td>Math → Evaluation</td>
<td>.006 (.00)</td>
<td>.003 (.00)</td>
<td>.003 (.00)</td>
<td>20.25, p &lt; .001</td>
</tr>
</tbody>
</table>

*Note: a Learning = approaches to learning
### Table 12. Developmental differences in parenting dimensions and child outcomes (White)

<table>
<thead>
<tr>
<th>Parent dimensions &amp; child outcomes</th>
<th>Kindergarten → 1&lt;sup&gt;st&lt;/sup&gt; grade</th>
<th>1&lt;sup&gt;st&lt;/sup&gt; grade → 3&lt;sup&gt;rd&lt;/sup&gt; grade</th>
<th>3&lt;sup&gt;rd&lt;/sup&gt; grade → 5&lt;sup&gt;th&lt;/sup&gt; grade</th>
<th>Delta Chi-square (p &lt; .05)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b (SE)</td>
<td>b (SE)</td>
<td>b (SE)</td>
<td></td>
</tr>
<tr>
<td>Externalizing → Evaluation</td>
<td>-.06 (.01)</td>
<td>-.09 (.01)</td>
<td>-.08 (.01)</td>
<td>11.39, p &lt; .01</td>
</tr>
<tr>
<td>Internalizing → Evaluation</td>
<td>-.04 (.01)</td>
<td>-.07 (.01)</td>
<td>-.07 (.01)</td>
<td>9.68, p &lt; .01</td>
</tr>
<tr>
<td>Learning&lt;sup&gt;a&lt;/sup&gt; → Evaluation</td>
<td>.10 (.01)</td>
<td>.12 (.01)</td>
<td>.12 (.01)</td>
<td>7.24, p &lt; .01</td>
</tr>
<tr>
<td>Reading → Evaluation</td>
<td>.004 (.00)</td>
<td>.002 (.00)</td>
<td>.004 (.00)</td>
<td>43.41, p &lt; .001</td>
</tr>
<tr>
<td>Math → Evaluation</td>
<td>.01 (.00)</td>
<td>.003 (.00)</td>
<td>.004 (.00)</td>
<td>33.28, p &lt; .001</td>
</tr>
<tr>
<td>Evaluation → Externalizing</td>
<td>-.14 (.01)</td>
<td>-.15 (.02)</td>
<td>-.10 (.02)</td>
<td>7.96, p &lt; .01</td>
</tr>
<tr>
<td>Evaluation → Internalizing</td>
<td>-.16 (.01)</td>
<td>-.24 (.02)</td>
<td>-.19 (.02)</td>
<td>13.37, p &lt; .001</td>
</tr>
<tr>
<td>Evaluation → Reading</td>
<td>7.64 (.43)</td>
<td>11.87 (.58)</td>
<td>4.28 (.44)</td>
<td>109.47, p &lt; .001</td>
</tr>
<tr>
<td>Evaluation → Math</td>
<td>4.39 (.34)</td>
<td>6.65 (.47)</td>
<td>3.44 (.38)</td>
<td>28.90, p &lt; .001</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Parent dimensions &amp; child outcomes</th>
<th>Kindergarten → 3&lt;sup&gt;rd&lt;/sup&gt; grade</th>
<th>3&lt;sup&gt;rd&lt;/sup&gt; grade → 5&lt;sup&gt;th&lt;/sup&gt; grade</th>
<th>Delta Chi-square (p &lt; .05)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spanking → Externalizing</td>
<td>.05 (.01)</td>
<td>.01 (.01)</td>
<td>13.28, p &lt; .001</td>
</tr>
<tr>
<td>Spanking → Internalizing</td>
<td>.04 (.01)</td>
<td>.01 (.01)</td>
<td>4.84, p &lt; .01</td>
</tr>
<tr>
<td>Spanking → Learning&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-.06 (.01)</td>
<td>.01 (.01)</td>
<td>23.61, p &lt; .001</td>
</tr>
<tr>
<td>Spanking → Reading</td>
<td>-1.56 (.31)</td>
<td>-.40 (.27)</td>
<td>7.82, p &lt; .01</td>
</tr>
</tbody>
</table>

* <sup>p < .05, ** p < .01, *** p < .001</sup>

Note: <sup>a</sup> Learning = approaches to learning
Chapter 7
Discussion

This chapter describes the main findings and contributions of the current study to the literature on parenting dimensions and child development across various ethnic groups. Extant research has demonstrated the importance of parenting to children’s academic and socioemotional outcomes (Parke & Buriel, 2006). Moreover, several theories have conceptualized parenting dimensions and the effects that they may have on child development.

Baumrind’s parenting style theory claims that parenting styles, based on variations in warmth and control, or structure, have differential effects on child development. For example, children of authoritative parents, who are typically high in both warmth and age-appropriate control, tend to have more positive developmental outcomes (better behavioral outcomes and academic achievement) than children of authoritarian (low in warmth, high in control) and permissive (high in warmth, low in control) parents (Chen, Liu, & Li, 2000; Durkin, 1995; Keshavarz & Baharudin, 2009). Darling and Steinberg (1993) extended Baumrind’s work by emphasizing the importance of delineating between parenting style and parenting practice and how the two are linked to children’s well-being. Their model also highlights the role of culture in influencing parenting goals and values. Wigfield and Eccles’ (1983) parent socialization theory specifies different ways in which parents’ beliefs shape children and suggests that children’s developmental outcomes are influenced not only by their own experiences, but also by parents’ expectations of their socioemotional and academic functioning. The overall purpose of the current study was to use a comprehensive model utilizing all three of the theories to better understand how various parenting dimensions may influence child development across time and across different ethnic groups.
This study contributes to our understanding of parenting and child development by addressing several gaps in the literature. Much research has examined child outcomes using only one theory of key parenting dimensions. The current study was based on a comprehensive model that included all three of the theories described above to examine how different parenting dimensions, taken together, influence child development. Another gap in the literature is that most of the studies on parenting and child development have relied on cross-sectional methods and posited uni-directional effects, in which parenting factors influence child outcomes. To examine the relationship between parenting and child outcomes concurrently and longitudinally, the current study utilized a longitudinal and bidirectional design to test the relationships among parenting and child outcomes and to explore trajectories of change. Last, research in this area has tended to compare parenting factors and child outcomes between Whites and one minority group or between Whites and minority groups as a whole (Gaines et al., 1997). The current study examined extensively how the relations between parenting and child outcomes differ across White, Asian, Black, and Latino families. In addition, in an effort to explain observed differences by ethnicity, the control and potentially explanatory variables (i.e. gender, SES, and generational status) were examined. Last, the current study examined developmental differences across the ethnic groups.

Using the framework of the aforementioned theories, the current study built on previous work linking parenting and child development across time and also across different ethnic groups, using a nationally representative longitudinal sample. The purpose of this dissertation was three-fold: first, to provide a comprehensive review of the parenting dimensions and their associations with children’s socioemotional and academic outcomes from Kindergarten up to 5th grade; second, to investigate the differential effects of ethnicity on the bidirectional
Examining Associations between Parenting Dimensions and Children’s Socioemotional and Academic Outcomes

Cross-sectional and longitudinal (bidirectional) analyses were conducted to investigate the influence of parent warmth, parent evaluations, and spanking on children’s socioemotional (e.g. internalizing and externalizing behaviors) and academic outcomes (e.g. reading and math scores, approaches to learning behaviors). Cross-sectional results revealed that positive parenting (parent warmth and positive parent evaluation) is associated with higher academic achievement (better approaches to learning behaviors and higher math and reading scores on standardized tests) at all of the time points examined. In addition, positive parenting, such as parental warmth, favorable or positive evaluations of one’s child, little or no spanking, was also associated with lower internalizing and externalizing behaviors. The strong influence of positive parenting on children’s overall wellbeing is confirmed by existing research showing that positive parent feedback is related to positive child outcomes (Benner & Mistry, 2007; Sigel, 1992). In addition, the current results support the results of previous studies that show that parent warmth contributes to positive academic outcomes (Hann, Osofsky, & Culp, 1996). Significant findings from this study also indicate that corporal punishment is related to negative child outcomes. For example, frequent spanking was related to more externalizing and internalizing behaviors and worse academic outcomes.

In general, positive parenting dimensions were significant predictors of how well children performed at school and how they fared socially and emotionally from Kindergarten to 5th grade.
Using the time points that were available, a two-year and two-wave cross-lagged design was used to examine longitudinal associations between parent warmth and children’s socioemotional and academic outcomes during Kindergarten and 3rd grade. The results indicated that parent warmth in Kindergarten predicted more positive child outcomes in 3rd grade (i.e. better academic scores, lower internalizing and externalizing behaviors). In addition, positive child outcomes (higher reading and math scores, lower externalizing and internalizing behaviors) in Kindergarten were likely to predict greater parent warmth in 3rd grade. It is important to note that the stability estimates for internalizing behaviors in Kindergarten and 3rd grade were lower than the stability estimates of other child outcomes. A possible explanation for this finding may be that Kindergarteners experience difficulty adjusting to formal schooling. Kindergarteners begin school with varying levels of socioemotional readiness and some children may not have the skills required to be socially engaged. Thus, they may initially be seen as quiet as they are navigating the transition to formal schooling.

A four-year cross-lagged design was used to examine longitudinal associations between parent evaluation and child outcomes across Kindergarten, 1st grade, 3rd grade, and 5th grade. In general, parents’ evaluations of their child significantly predicted how children performed academically and socioemotionally a later year. For example, parents’ favorable evaluations in Kindergarten had a positive influence on children’s math and reading scores in 1st grade. In turn, children’s academic achievement and socioemotional development predicted more favorable parent evaluations at a subsequent time point. These findings were seen across all of the timepoints, suggesting that parent evaluations are important for predicting children’s performance academically and socioemotionally. Further, the findings indicate that there is a
bidirectional association, such that positive child outcomes predict more positive parent evaluations (see also Patterson et al., 1992).

A three-year cross-lagged design was used to examine the relationship between spanking and child outcomes in Kindergarten, 3rd grade, and 5th grade. Results showed that frequent spanking was significantly related to more negative outcomes in children (i.e. lower academic achievement and higher internalizing and externalizing behaviors) across the different time points. In turn, results revealed that lower academic achievement, in general, predicted more use of spanking at a later timepoint. Similarly, internalizing and externalizing behaviors predicted more frequent spanking at a later timepoint. These results echo the findings of other studies that have examined bidirectional associations of parenting practices and child outcomes. For example, Dishion and colleagues (2004) found that parents of adolescents who engaged in antisocial acts were more likely to disengage from their children. In turn, these adolescents were more likely to use marijuana and engage in problem behaviors.

**Ethnic Differences in the Association Between Parenting and Child Outcomes**

The next set of findings involved the examination of longitudinal (bidirectional) associations of parenting dimensions and child outcomes. In contrast to previous studies that mainly used cross-sectional designs to explore the relationships between specific parenting dimensions and child outcomes, the present study used a longitudinal (bidirectional) model to delineate the reciprocal processes among the three parenting dimensions and children’s socioemotional and academic outcomes. This study also examined these relationships among four major ethnic groups. Bidirectional longitudinal relations will be discussed in each of the parenting dimension sections.

*Parent evaluation and child outcomes*
Evidence from this study differs from that of prior studies that found greater benefits of positive parent evaluation for Asian students than others (Aldous, 2006; Chen and Lan, 1998; Kao, 2002). These findings are surprising given previous studies that have documented Asian parents significantly higher educational expectations for their children compared to White parents (Cheng & Starks, 2002). Contrary to expectations, favorable parent evaluations resulted in more positive socioemotional and academic outcomes more so for Whites, followed by the other groups. For example, favorable parent evaluations predicted lower internalizing and externalizing behaviors and, in turn, lower internalizing and externalizing behaviors predicted more favorable evaluations at a later timepoint for Whites. A similar result was seen with their academic outcomes (reading scores, math scores, and approaches to learning behaviors). Furthermore, reciprocal relations were detected, such that better socioemotional outcomes and higher academic outcomes predicted more favorable parent evaluations at a later timepoint more so for Whites than the other groups. Although previous studies have suggested that high parental expectations for Asians results in better outcomes, such as academic success (Chao, 1996; Phinney, Ong & Madden, 2000), the current study found that White students more strongly responded to parental expectations with better socioemotional outcomes. One possible explanation for this inconsistency concerns culture-specific differences in communication patterns of Asian and White families. For example, Asian American parents are more likely than White parents to communicate their expectations indirectly and by means of non-verbal communication (Kao & Salerno, 2014; Tsai-Chae & Nagata, 2008). For example, Rhee, Chang, and Rhee (2003) showed differences in the openness of communication between Asian and White students and their parents. White students had more open communication with their
parents, whereas, Asians reported having more difficulty openly communicating with their parents.

Additionally, it could be that the variable used to measure parent evaluation captures the concept of “expectations” and what previous researchers have learned about Asians’ parenting and expectations. Much of the literature focuses on how parental expectations in the academic domain result in positive outcomes, such as increased motivation, positive attitudes toward school, and higher achievement in math and reading (Astone & McLanahan, 1991; Fuligni & Hardway, 2004; Gottfried, Fleming, & Gottfried, 1994; Halle, Kurtz-Costes, & Mahoney, 1997). For example, Halle, Kurtz-Costes, and Mahoney (1997) had parents report their expectations for the educational attainment of their children. Parents indicated the likelihood that their child would complete different educational levels (i.e. 6th grade, 9th grade) using a 5-point scale ranging from 1 (highly unlikely) to 5 (highly likely). There were also items related to parental evaluation of their children’s achievement in math, reading, and overall school performance compared to peers. However, the measure that was used in the present study focused on children’s behavior in several domains compared to that of other children (i.e. “My child is as clever as…”, “My child is as articulate as…”, “My child is as good as…”, “My child is as attentive as…”, and “My child behaves as well as other children”). Parent evaluation may be tapping into a slightly different construct than the “expectation” measures used in other studies. Future studies should systematically examine whether parent evaluation and parent expectations function in differing ways.

*Parent warmth and child outcomes*

Parent warmth was generally positively linked to children’s socioemotional and academic outcomes at a later timepoint, and this effect was stronger for White or Black children than for
Latino or Asian children. Specifically, higher warmth resulted in lower internalizing and externalizing outcomes at a later timepoint. Similarly, better socioemotional development predicted more warmth at a later timepoint. The same findings were seen in the academic domain, where parent warmth resulted in better academic scores and learning behaviors more strongly for White and Black children than for Latino or Asian children, and this relationship was reciprocal.

The results of the current study support previous literature indicating that parent warmth is higher for Whites compared to minority groups (Chao, 2001; Pinderhughes, et al., 2000). Previous studies indicate that White parents tend to hold authoritative parenting styles, which have been associated with better academic achievement for White students but are not strongly associated with achievement for Asian and Black students (Dornbusch et al., 1987). Another set of results for this section also support the hypothesis that parent warmth results in more positive outcomes for Black children. Black parents have been thought to engage in high levels of control over their children while also being high in parent warmth (Dearing, 2004; Steele, Nesbitt-Daly, Daniel, & Forehand, 2005). Although this restrictive control may be seen as being harsh in other cultures, these practices are more normative among Black families, it nonetheless may lead to positive outcomes because it occurs in the context of parental warmth and concern. Furthermore, the cross-lagged pathways revealed that better behaviors among children were linked to more parent warmth for both Whites and Black students. These findings support the bidirectional nature of parent-child relationships in that children’s outcomes can influence parenting behaviors (Patterson et al., 1992).

Corporal punishment and child outcomes
The results of the current study were mixed with regard to the hypothesis that corporal punishment would result in lower academic achievement and worse socioemotional outcomes for Whites, followed by the other three groups. In support of my prediction, more frequent spanking was associated with more externalizing behaviors and worse approaches to learning behaviors more strongly for White students. These findings are consistent with other studies that have indicated that spanking may reinforce negative behaviors, such as child aggression (Gershoff, 2010). A recent study by Lee, Altschul, & Gershoff (2013), however, found that, regardless of parental warmth, spanking does not decrease aggressive behaviors in children. Parents may employ a positive parenting style that contributes to a secure parent-child relationship, but the use of corporal punishment may compromise that relationship, thus resulting in negative behaviors. The results of the current study extend that literature by examining ethnic differences of the use of spanking and socioemotional and academic outcomes. The current findings seem to support past research that finds that harsh and punitive parenting has more detrimental outcomes (i.e. externalizing behaviors) for White youth than for Black and Latino youth (Deater-Deckard & Dodge, 1997; Grogan-Kaylor, 2005; McLeod & Nonnemaker, 2000). Although White parents are more likely to employ authoritative parenting styles that consist of high control and warmth, these findings indicate that spanking in general may be detrimental to White children.

The current study also found that more frequent spanking was associated with negative outcomes for Latino children. Past research findings concerning corporal punishment among Latino families have been mixed. Some studies report that Latino parents spank less frequently than White parents (Hashima & Amato, 1984; Slade & Wissow, 2004), while other studies report that Latino parents have similar rates of spanking to White parents (Grogan-Kaylor & Otis, 2007) or are more likely to use physical disciplinary methods compared to White parents (Chao
& Kanatsu 2008; Dixon et al., 2008; Santiago-Rivera et al., 2002). The current study supports previous literature to an extent, in that more frequent spanking among all of the ethnic groups resulted in negative outcomes, which in turn led to more use of spanking at a later time. However, this study showed that the relationships between spanking and negative outcomes were stronger for White and Latino children.

Finally, with one exception, the association between spanking and negative child outcomes was nonsignificant for Asians. The exception was that Asians with higher reading scores in third grade were more frequently spanked at fifth grade. One explanation of this particular finding could be that Asian children who performed better early on and subsequently regressed towards the mean, which led to more frequent spanking. In terms of the overall nonsignificant associations between spanking and outcomes for Asians, one possible explanation is that spanking may have different implications and may be less detrimental for Asians than for other ethnic groups. Perhaps strict parenting among Asians is culturally accepted by both the parents and the child, thus influencing the meaning of corporal punishment. These cultural values may align with a parenting style that reflects “guan,” which involves parents’ training and monitoring of children's behaviors (Chao, 1994). Asian children may endorse collectivistic values, according to which they are taught to obey their parents and support group harmony. As a result, they may not take the experience of being spanked beyond the immediate circumstance. Instead, authoritarian parenting may be interpreted as parental concern or care instead of aggressive or hostile strictness (Chao, 1994). These findings highlight the value of examining corporal punishment in its cultural context.

The current study, however, finds that the disparity in the associations between parenting and child outcomes may not be completely explained by ethnicity. Potential explanatory
variables (i.e., SES, generational status, and gender) were examined in terms of parenting and child outcomes. Ethnic differences among the associations between parental warmth and externalizing behaviors, reading, and math scores did not remain significant after adjusting for SES. Similarly, the pathways examining ethnic differences between parent evaluation and internalizing and externalizing behaviors, approaches to learning, and math scores, were no longer significant after adjusting for SES. Last, ethnic differences among the associations between spanking and approaches to learning, and math scores, disappeared when SES was included in the model.

The aforementioned results suggest that SES, not ethnicity, could explain the disparity. For example, SES may directly or indirectly influence parenting choices. Parents who have higher education and access to more resources may facilitate better experiences for their children, resulting in positive child outcomes (Davis-Kean, 2005; Singh et al., 1995). Studies show that parents with higher SES are also more likely to convey their aspirations, set high expectations (Davis-Kean, 2005; Goyette & Xie, 1999; Smith, Brooks-Gunn, & Klebanov, 1997), and create a home environment with resourceful materials that provides optimal growth for their children (Totsika & Sylva, 2004). In addition to these factors, parents in a low SES household may face more economic hardships and stressors that may negatively influence child development (Conger & Donnellan, 2007). Ethnic differences were also no longer significant when gender was included separately for the model examining the association between parental evaluation and math scores and internalizing behaviors. One possible explanation could be that parents may encourage different behaviors and activities in sons versus daughters. Some parents may have more traditional attitudes and gender-stereotypical expectations for their children which can influence child outcomes (Fiese & Skillman, 2000; Kail, 2010). For example, mothers
are more likely to underestimate their daughter’s math ability and overestimate their son’s abilities in math (Frome & Eccles, 1998).

**Developmental Differences**

The nature of developmental changes in children and parents’ responses changed from Kindergarten to 5th grade for some of the socioemotional and academic outcomes across the four ethnic groups. There appears to be a consistent pattern for spanking and child outcomes for Latinos, Whites, and Blacks such that children were more reactive to parental spanking when they were younger than when they were older. Contrary to expectations, some of the results did not indicate significant developmental differences for all of the measures. For example, among Asians, Blacks, and Latinos, the associations between children’s approaches to learning and internalizing behaviors and parents’ responses did not change from Kindergarten to 5th grade. Although previous literature suggests that reciprocal influences are not consistent across child development (Dietz, 2000; Loeber et al., 2000; Nobes & Smith, 1997; Smetana et al., 2006; Wissow, 2002), the current findings indicate that the mutual influences between spanking and approaches to learning and internalizing behaviors remain throughout elementary school. However, it is likely that the nature of parenting and the effect it has on children as they move onto high school will change as they mature cognitively and gain more independence from their parents.

**Limitations and Recommendations for Future Research**

This study attempted to provide a comprehensive description of parenting dimensions and their influence on child outcomes across time. Much of the literature thus far has examined parental factors separately, without examining how several dimensions can influence child outcomes. Furthermore, many of the studies have not addressed cultural factors among more
than two major ethnic groups within the analyses. This study brings a new perspective, as it examines how the various dimensions of parenting can influence socioemotional and academic outcomes of children longitudinally. It also weaves this information together to test a comprehensive model of how these relationships differ across ethnic groups. Additionally, this research attempts to take into account children’s behavioral outcomes and how they may influence parenting behaviors. To examine these comprehensive models, this study employed a nationally representative dataset gathered across four different years. By employing the SEM technique, the study was able to test both unidirectional and bidirectional analyses. These models provide strong evidence for bidirectional relationships that differs across the ethnic groups.

Despite many strengths, several shortcomings of the research need to be noted. First, although there were 5 different timepoints, the data were analyzed across only four: Kindergarten, 1st grade, 3rd grade, and 5th grade. Measures for some of the 8th grade variables differed from those used at earlier timepoints, and the variables were not available at a later wave for some of the analyses. Second, child outcomes (approaches to learning behaviors, internalizing and externalizing behaviors) were measured from the teachers’ point of view. Although some of these variables, as reported by child, are available in the dataset, they were not collected until 3rd grade. Children’s reports of their behavior may differ from those of their teachers. Future studies should use alternative methods, such as classroom observations. Needless to say, mothers also may provide important information regarding their child’s developmental outcomes because they have the opportunity to observe their child in multiple settings outside of the school context (Juntila, Voeten, Kaukiainen, & Vauras, 2006; Renk & Phares, 2004). In short, future research should use multiple methods to complement teacher reports of child outcomes. Additionally, future research should explore the authoritarian
parenting style among Asians in more depth. Cultural values among Asian families, such as the emphasis on interdependence, family harmony, and guan, can lead to a discrepancy in the experiences of Asian children. Exploring the concept of guan might shed light on what seem to be the positive implications of “authoritarian” parenting for Asian children’s socioemotional and academic outcomes, without the negative connotations that authoritarian parenting has been found to have for other children.

Finally, findings of this study should not be generalized beyond the ethnic groups represented in this study. Although the dataset included large subsamples of each ethnic group, the study did not take into account the specific cultural backgrounds of ethnic groups within the subsamples (i.e. Chinese, Japanese, Filipinos) or the degree of their acculturation. Future studies should examine cultural perspectives of the sub-groups and how their perspectives may influence the relationship between parenting and child outcomes.

**Implications**

The findings of this research have several implications for educators, counselors, and parents. The results support a comprehensive framework of parenting that includes cultural differences in parenting dimensions among White, Black, Asian, and Latino families. As indicated by most research, spanking emerged as a negative factor for children’s well-being. Parents need to be made aware of how different aspects of parenting can adversely or positively impact child development, with particular attention to strategies that contribute to the success of their child. It is especially important to communicate to parents the transactional processes involving parent and child that are associated with negative socioemotional and academic outcomes for children. Furthermore, the findings have important implications for educators and counselors who need to be knowledgeable about cultural values and their effects on various
aspects of parenting when assisting White, Black, Asian, and Latino families. A closer look at ethnic differences in parenting dimensions and their relations to children’s behaviors would provide more depth and clarity in the broader educational milieu, helping to create culture-specific programs that emphasize collaborative, parent-child centered practices.
References


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