Title

I Think I Can: The Relations Among Parenting Self-Efficacy, Parenting Context, Parenting Practices, and Preschoolers' Socio-Emotional Development Among Low Income Immigrant Families

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I Think I Can: The Relations Among Parenting Self-Efficacy, Parenting Context, Parenting Practices, and Preschoolers' Socio-Emotional Development Among Low Income Immigrant Families

By

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Professor Qing Zhou, Chair
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Professor Susan Holloway

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Abstract

I Think I Can: The Relations Among Parenting Self-Efficacy, Parenting Context, Parenting Practices, and Preschoolers' Socio-Emotional Development Among Low Income Immigrant Families

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Doctor of Philosophy in Psychology

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Parenting self-efficacy has been shown to influence parenting practices and children's developmental outcomes. However, little is known about how cultural orientation and parenting stress shape parenting self-efficacy and parenting practices, and how parenting self-efficacy and parenting practices uniquely shape children's socio-emotional development in low-income, immigrant families. In a sample of 88 Mexican American (MA) and Chinese American (CA) low-income, immigrant mothers and their preschoolers, the present study examined the concurrent associations among mothers' cultural orientation, parenting stress, parenting self-efficacy, parenting practices, and children's socio-emotional adjustment. All constructs were measured by mothers' self-reports. First, I examined how family demographic characteristics (family income, mothers' education, mothers' years in the US), mothers' cultural orientation to heritage and American culture, and parenting stress (parental distress and parent-child dysfunctional interactions) were associated with mothers' parenting self-efficacy. Results indicated that mothers' heritage and American cultural orientations were both associated with greater parenting self-efficacy. In contrast, parenting stress—specifically, dysfunctional parent-child interaction—was associated with less parenting self-efficacy. Second, I examined the associations between parenting self-efficacy and parenting practices (authoritative and authoritarian parenting). Mothers' parenting self-efficacy was uniquely associated with greater authoritative parenting. In addition, parenting self-efficacy mediated the associations between a) mother's heritage cultural orientation, American cultural orientation, and parent-child dysfunctional interaction, and b) mothers' authoritative parenting. Third, I examined how parenting self-efficacy was uniquely associated with children's socio-emotional adjustment. Parenting self-efficacy was associated with more prosocial behaviors and less externalizing problems. Furthermore, authoritative parenting mediated the association between parenting self-efficacy and children's prosocial behaviors. Last, I explored potential differences between cultural groups. Results indicated that MA mothers reported greater parenting self-efficacy compared to CA mothers. I also found cultural group differences in correlations among variables. Overall, the findings highlight the benefits of parenting self-efficacy for children's socio-emotional adjustment and the complex contextual factors that shape parenting self-efficacy in immigrant families. Implications of findings for the development of parenting interventions for low-income immigrant families are discussed.

Dedication

To Isabella and Damien who inspire me everyday

I think I can: The relations among parenting self-efficacy, parenting context, parenting practices, and preschoolers' social-emotional development among low income immigrant families

Self-efficacy is "the belief in one's capabilities to organize and execute the courses of action required to manage prospective situations" (Bandura, 1995, p. 2). Self-efficacy can be measured across various levels—general self-efficacy (e.g., "I am a good person"), domain-specific efficacy (e.g., "I am a good student," "I am a good parent"), and task-specific efficacy (e.g., "I am good at algebra," "I am good at disciplining my children") (Bandura, 1997; Coleman & Karraker, 2000). Bandura (1997) argued that self-efficacy, when measured at domain or task level, is highly predictive of people's behavior and ability to achieve a desired outcome. So, while an individual's general self-efficacy may not provide much information about their behavior, an individual's self-efficacy for parenting or disciplining their children is hypothesized to predict their parenting and disciplining behaviors.

Parenting self-efficacy, one domain of self-efficacy, refers to parents' beliefs in their ability to effectively execute parenting skills in the service of influencing their child's outcomes. Parenting self-efficacy is theorized to influence children's competence and adjustment through its impact on parenting practices. In turn, effective parenting practices and positive child outcomes are hypothesized to increase parenting self-efficacy (Bandura, 1997). Although there is some evidence that greater parenting self-efficacy is associated with positive parenting practices and with children's positive psychological adjustment (for reviews, see Coleman & Karraker, 1998; Jones & Prinz, 2005), the focus has been predominantly on parents of infants and toddlers, with a few studies focusing on adolescence. There is a scarcity of studies focused on parenting self-efficacy and preschool children's (ages 3 to 5) development.

The preschool period is a critical time when children transition to formal schooling. In 2016, more than half of 4-year-olds and 86% of 5-year-olds were enrolled in preprimary schools (preschool or pre-kindergarten/transition-to-kindergarten) in the US (NCES, 2016). During this developmental period, a critical goal of parenting is to prepare children for successful transition to formal schooling. The preschool period may be a particularly important transition for children in immigrant families because preschool experience is often their first formal and consistent contact with the English language and mainstream American culture (Matthews & Ewens, 2006). Immigrant parents may be unfamiliar with the preprimary setting and expectations in the US and may believe that they are unable to effectively support their children's success in this context (Harper & Pelletier, 2010; Ladky & Peterson, 2008; Peña, 2000; Turney & Kao, 2009). For example, immigrant parents who don't speak English may not be able to effectively communicate with their children's teachers or read to their children in English (Ladky & Peterson, 2008; Peña, 2000; Turney & Kao, 2009). If immigrant parents believe they are unable to help their children in school, which serves to prepare children to become successful in their community, immigrant parents may be at higher risk for low parenting self-efficacy. Given that 1 in 4 children in the US are 1st or 2nd generation immigrants (Child Trends, 2014), it is necessary to examine what factors may be associated with parenting self-efficacy and how parenting self-efficacy is associated with preschoolers' socio-emotional adjustment among immigrant families.

The present study contributes to the growing literature on parenting self-efficacy in multiple ways. First, by using a sample of low socioeconomic status (SES) Mexican and Chinese American immigrant mothers of preschoolers, I aim to expand our understanding of the role of maternal self-efficacy among a high-risk population. Second, I examine how mother's parenting context, specifically their SES, cultural orientations, and parenting stress, are uniquely associated

with parenting self-efficacy. Third, I examine how parenting self-efficacy is uniquely associated with parenting practices and whether parenting self-efficacy statistically mediates the association between cultural orientation and parenting stress and parenting practices. Fourth, I examine the direct and indirect association between parenting self-efficacy and children's socio-emotional adjustment. Last, I explore whether parenting self-efficacy varies between Mexican American and Chinese American mothers of preschoolers.

Parenting Self-Efficacy and Parenting Practices

According to self-efficacy theory, parents who have high parenting self-efficacy believe they have the knowledge and skills needed to effectively influence their children's outcomes. According to Bandura (1995), individuals who are high on self-efficacy also have confidence in their ability to overcome challenges and see problems as mastery experiences. Their confidence also facilitates more flexible problem solving; in turn, they are more persistent and less likely to feel distressed by setbacks. Therefore, when faced with parenting challenges, parents with high parenting self-efficacy are more likely to persist and believe that they have the ability and skills to support their children. Hence, parenting self-efficacy appears to facilitate consistency in parenting and is theorized to predict parenting practices. Consistent with these expectations, parenting self-efficacy has been associated with higher parental warmth, greater parental attention to infants' signals, higher parental acceptance, and greater active and direct parent-child interactions (for reviews, see Coleman & Karraker, 1998; Jones & Prinz, 2005). There is also some evidence that these associations are applicable to immigrant families. For example, in a study of first-generation Mexican American mothers of children 3 to 9 years of age, Izzo, Weiss, Shanahan, and Rodriguez-Brown (2000) found that parenting self-efficacy was positively associated with parental warmth and authoritative control.

In contrast, low parenting self-efficacy has been associated with harsh or coercive parenting, or ineffective disciplinary practices. This is likely because parents who lack confidence that they can effectively influence their children's behavior and outcomes are less likely to use consistent parenting practices, and/or are more likely to feel frustrated or helpless when responding to their children. Moreover, parents with low parenting self-efficacy often feel incapable of handling challenging situations and often become overwhelmed when encountering stress. Consistent with the theory, in a sample of mothers of children 2 to 8 years old, Sanders and Wooley (2005) found that parenting self-efficacy was negatively associated with parental laxness and over-reactivity. Specifically, parents with low parenting self-efficacy were more likely to use permissive, inconsistent, and harsh parenting practices.

According to Bandura (1997), parenting self-efficacy and parenting practices are theorized to have a reciprocal relationship such that parenting self-efficacy influences parenting practices and using effective parenting practices increases parenting self-efficacy. Parents who use effective parenting practices are expected to see positive child behaviors. If parents interpret their child's positive outcomes as an indicator of their parenting "success," then their parenting practices (and child's behavior) influence their parenting self-efficacy. There are few longitudinal studies examining these reciprocal effects. Dumka Gonzales, Wheeler, and Milsap (2010) examined the reciprocal effects of parenting self-efficacy and parenting practices among Mexican American mothers and adolescents across four time points spanning two years. Among the models tested (parenting self-efficacy predicting parenting practices, parenting practices predicting parenting self-efficacy, and reciprocal effects of parenting self-efficacy and parenting practices), the best fit model indicated that parenting self-efficacy predicted parenting practices

while controlling for previous parenting self-efficacy and parenting practices. Glatz and Buchanon (2015) also conducted a longitudinal study examining parenting self-efficacy, parenting practices, and externalizing problems among European and African American parents and their adolescent children across three time points spanning three years. Results indicated that there was a reciprocal association between parenting self-efficacy and parenting practices between Time 1 and Time 2 (a year apart), but no association between parenting self-efficacy and parenting practices between Time 2 and Time 3 (two years apart). Therefore, there is limited evidence of reciprocal effects, and the association between parenting self-efficacy and parenting practices may vary by developmental period.

Based on these findings, I hypothesized that parenting self-efficacy would be positively associated with parental warmth and sensitivity, which are characteristic of an authoritative parenting style (Baumrind, 1978). I also hypothesized parenting self-efficacy to be negatively associated with coercive and harsh parenting, which are characteristic of an authoritarian parenting style (Baumrind, 1978). Because this study is cross-sectional, the direction of causality cannot be determined.

Parenting Self-Efficacy and Children's Outcomes

Bandura theorized that "parents who have a high sense of parenting self-efficacy select and construct environments conducive to their children's development" (Bandura et al., 1996, p. 1216). Therefore, parenting self-efficacy serves as a protective factor in children's development. Consistent with self-efficacy theory, Bandura and colleagues (1996) found that parents' academic efficacy—parents' belief in their ability to promote their children's academic success—was positively associated with children's academic achievement. However, processes or mechanisms by which parenting self-efficacy influences children's outcomes remain unclear.

Self-efficacy theory suggests that parenting self-efficacy influences parenting practices, which in turn influence children's outcomes. Izzo and colleagues (2000) found that parenting self-efficacy among Mexican American mothers was positively associated with their elementary school children's socio-emotional adjustment. However, parenting self-efficacy was no longer a significant predictor of elementary children's socio-emotional adjustment after parental warmth and authoritative control were added in the hierarchical regression model. This suggests that parenting practices may mediate the association between parenting self-efficacy and children's outcomes. However, there may be other ways that parenting self-efficacy can influence children's outcomes. Dumka and colleagues (2010) found that parenting self-efficacy had a direct negative association with adolescent conduct problems that was not mediated by parenting practices. In fact, parenting practices were not significantly associated with adolescent outcomes. Thus, evidence of parenting practices as a mediator between parenting self-efficacy and child outcomes has been inconsistent.

According to Bandura (1995), there are likely other mechanisms through which parenting self-efficacy impacts children's outcomes. First, individuals' self-efficacy may influence their psychological well-being (Bandura, 1997). There is substantial evidence that parents' psychological adjustment influences children's socio-emotional development (Cimino, Cergniglia, & Paciello, 2014; Goodman et al., 2011; Marmorstein & Iacono, 2004). Consistent with this hypothesis, Costigan and Koryzma (2011) found that parenting self-efficacy was positively associated with Chinese immigrant parents' own psychological adjustment. Therefore, parenting self-efficacy might influence children's outcomes through parental stress or psychological symptoms. Parenting self-efficacy may also result in less parent-child conflict and

greater family cohesion, which have been shown to shape children's positive psychological adjustment (Bradford, Vaughn, & Barber, 2008; Chung, Flook & Fuligni, 2009; El Sheikh & Elmore-Staton, 2004; Fuligni, 1994; Leidy, Guerra, & Toro, 2010; Lucia & Breslau, 2006).

It is also important to note that the relation between parenting self-efficacy and child behavior might be bidirectional. Bandura (1995) theorized that successful experiences lead to greater self-efficacy such that children who are well-adjusted reinforce parents' belief that their parenting skills are effective and increase their parenting self-efficacy. However, most research has been cross-sectional, and researchers have interpreted positive associations between parenting self-efficacy and child outcomes as evidence that parenting self-efficacy causes positive child outcomes. Glatz and Buchanon (2015) conducted a longitudinal study examining parenting self-efficacy, parenting practices, and externalizing problems among European and African American parents and their adolescents across three timepoints spanning three years. Children's externalizing problems at Time 1 were not associated with parenting self-efficacy or parenting practices at Time 2 (one year apart). However, externalizing problems at Time 2 predicted parenting self-efficacy and parenting practices at Time 3 (two years apart). Therefore, it is unclear if and when children's behavior influences parenting self-efficacy.

When examining the link between parenting self-efficacy and child outcomes, it is necessary to consider the developmental period of the child. Both the impact of parenting self-efficacy on children (and vice versa) and the mechanisms (such as parenting practices) may have a stronger impact on children's outcomes during early or middle childhood compared to adolescence. Understanding if parenting practices mediate the association between parenting self-efficacy and preschool children's outcomes will contribute to our ability to identify intervention targets.

Parenting Self-Efficacy in Context

According to Bandura (1995), self-efficacy is sensitive to personal context and is influenced through four main pathways: personal mastery experiences, vicarious experiences, verbal persuasion, and physiological arousal. Mastery experiences are considered the most influential: the more individuals engage in a behavior and successfully obtain their goal, the more confidence they build in their capabilities (Bandura, 1995). Thus, parents who successfully use parenting skills to achieve their parenting goals and see their impact on their children should have higher parenting self-efficacy.

Vicarious experiences (e.g., witnessing others' successes) as well as verbal persuasion (being told that you are capable of a specific ability and that it will result in success) can also increase parenting self-efficacy (Bandura, 1995). When parents see other parents effectively using the same parenting strategies that they use (vicarious experience) or when other parents recognize and praise their parenting skills (verbal persuasion), one would expect parenting self-efficacy to increase. Parents are more likely to see other parents using similar parenting practices when their parenting practices are congruent with those in the culture in which they parent, because parenting norms are embedded in culture. Immigrant parents are exposed to the parenting norms and practices of their heritage culture and their host culture, and their exposure to the host culture potentially increases when their children begin preschool. Depending on the differences between the parenting norms and practices between their host and heritage culture, immigrant parents may be less likely to have vicarious experiences and receive verbal persuasion.

Finally, Bandura predicted that physiological arousal would lead to avoidance of behaviors or situations that would be needed for mastery experiences, thereby contributing to a diminished sense of self-efficacy (Bandura, 1995). This finding is consistent with the evidence that some parents with low parenting self-efficacy exhibit greater parental laxness (Sanders & Wooley, 2005). Some parents may experience a physiological response like stress or anxiety when faced with parenting challenges. Parents who avoid the situation, thereby removing themselves from the opportunity to practice their parenting skills and have a mastery experience, are likely to have low parenting self-efficacy.

Considering these pathways and the context of immigrant families, I predict that immigrant parents' cultural orientation and parenting stress will be significantly associated with their parenting self-efficacy.

Cultural orientation. Given that parenting self-efficacy is most influenced by experiences in which parents feel their parenting skills are effective (mastery experiences), it is important to consider the obstacles that immigrant parents may face that could interfere with their having a mastery experience. For example, immigrant parents may be unfamiliar with the educational system in the US and may feel unsure about how to effectively support their child's transition to school. In fact, unfamiliarity with the US school system, limited English proficiency, and low socioeconomic status (SES) have been shown to be barriers to immigrant parents' involvement in their children's school (Harper & Pelletier, 2010; Hornby & Lafaele, 2011; Ladky & Peterson, 2008; Peña, 2000; Turney & Kao, 2009). In contrast, immigrant parents who speak English can connect with children's teachers, other parents, and community resources to support their child's transition to school. Therefore, immigrant parents who are more oriented to American culture (e.g., have greater English proficiency) may accumulate more mastery experiences. Costigan & Koryzma (2011) examined the associations between parenting self-efficacy and cultural orientation among Chinese immigrant parents of adolescents living in Canada. They found that greater orientation to Canadian culture was associated with higher parenting self-efficacy.

According to developmental niche theory, parenting is based on culturally regulated customs and practices, which in turn influence child development (Harkness & Super, 2002). Parents receive messages about parenting strategies both directly (verbal persuasion) and indirectly (vicarious learning) from their cultural context. Immigrant parents are exposed to two cultural contexts – their heritage culture and their host culture. When there are competing parenting norms and practices between parents' heritage culture and host culture, parents may question the effectiveness of their parenting practices in the new context. For some immigrant parents, maintaining their heritage culture may be an important parenting goal, and some may rely on an ethnic community in their host culture to help them navigate the new culture (Hughes et al., 2006). However, the change in cultural context may require different parenting practices to facilitate their children's development in the new context. For example, if independence and assertiveness are highly valued in the host culture, parenting practices may encourage children to try to do things on their own and express their emotions and needs. But those same parenting practices would not be the norm in a cultural context where interdependence and respect for a hierarchy of power are highly valued and inform parenting goals. However, immigrant children may require the former skills to be successful in the new cultural context. The mismatch between parents' heritage culture and their host culture's parenting values and practices may cause parents to feel less efficacious in their ability to help their child succeed in a different cultural context. In contrast, immigrant parents who are more oriented to their host culture are likely to

adopt or integrate parenting values and practices from their host culture (Choi, Kim, Kim, & Park, 2013). When parenting beliefs and practices are consistent with the parenting values and norms of the host culture, parents are likely to have more vicarious experiences and receive reinforcement for their parenting practices (verbal persuasion).

Given the significant impact cultural orientation can have on immigrant parents, I hypothesized that immigrant parents' American cultural orientation will be associated with higher parenting self-efficacy. However, the impact of immigrant parents' heritage cultural orientation is less clear. Therefore, I tested the association between parents' heritage cultural orientation and parenting self-efficacy as an exploratory aim without an a priori hypothesis.

Parenting stress. Immigrants are vulnerable to experience high levels of stress due to factors such as acculturation, discrimination, and low SES. Data from the National Latino and Asian American Study (NLAAS), which includes a nationally representative community sample of 2059 Latinos and 2095 Asian Americans living in the US, found that low English language proficiency, preference for heritage language, and experiencing discrimination contributed to greater acculturative stress (Lueck & Wilson, 2010, 2011). Furthermore, first-generation immigrants (foreign-born individuals) reported higher levels of stress than subsequent generations (Lueck & Wilson, 2010, 2011). These findings suggest that given their overall stress levels, immigrant parents may be particularly vulnerable to low parenting self-efficacy due to acculturation stress and lack of resources and social support to meet the significant number of demands placed on them, including parenting.

When parents believe that they are not able to effectively meet the demands of parenting, they experience increased parenting stress (Deater-Deckard, 1998). Based on Bandura (1995), stress causes physiological arousal, which can lead to avoidance. Therefore, parents who experience heightened parenting stress are less likely to engage in mastery experiences and are likely to have low parenting self-efficacy. Consistent with parenting self-efficacy theory, Reece and Harkless (1998) found that parenting self-efficacy was inversely associated with parenting stress, both prenatally and concurrently, for mothers of 4-month-old infants. In a Japanese sample of mothers of second graders, Suzuki (2010) found that mothers' parenting stress was negatively associated with parenting self-efficacy.

Deater-Deckard (1998) proposed that parenting stress is negatively associated with children's psychological adjustment because of its impact on parenting practices. There is significant evidence of the positive association between parenting stress and children's maladjustment (Anthony et al., 2005, Crnic, Gaze, & Hoffman, 2005; Rousseau et al., 2013). For example, Anthony and colleagues (2005) found that parent-reported parenting stress was significantly associated with teacher-report of 2- to 5-year-old children's poorer social competence, and greater internalizing and externalizing problems. However, parenting practices did not mediate the association between parenting stress and child outcomes. Anthony and colleagues (2005) suggested that there may be other pathways by which parenting stress affects child outcomes. Based on these findings, I hypothesize that parenting stress will be associated with lower parenting self-efficacy, less effective parenting (lower authoritative parenting and higher authoritarian parenting), and children's poorer socioemotional outcomes.

Mexican American and Chinese American Immigrant Parents

Because the effects of self-efficacy are theorized to be universal across cultures (Bandura, 1995; Oettingen, 1995), parenting self-efficacy is expected to impact parenting practices and in turn children's socio-emotional adjustment in all cultures. However, Oettingen

(1995) states that the form and evaluation of different sources of self-efficacy may differ in culturally determined ways. For example, what source of information (e.g., mastery experiences versus vicarious experiences of family versus teachers; verbal persuasion by friends versus pediatrician) most influences one's self-evaluation may vary by cultures. Furthermore, the content of one's self-evaluation is expected to vary with culture. For example, parents in one culture may value the importance of teaching their children how to express their emotions while parents in another culture might value the importance of teaching their child to suppress their emotions. While their parenting self-efficacy will depend on how effective they are at reaching their parenting goals, their parenting self-efficacy will likely be related to different parenting practices which reflect their different parenting goals. Therefore, the association between parenting self-efficacy and specific parenting behaviors may differ.

Although universality among predictors and consequences of parenting self-efficacy is expected, there is a scarcity of research comparing mean level differences in parenting self-efficacy and predictors' strength between cultural groups. In this study, I explored parenting self-efficacy among Mexican American (MA) and Chinese American (CA) immigrant mothers. Mexican Americans and Chinese Americans are the two largest and fastest growing immigrant groups in the US (Pew Research Center, 2013, 2015; U.S. Census Bureau, 2011, 2012) and in the San Francisco Bay Area (U.S. Census, 2012). Although Asian Americans on average have higher income and education than Latin Americans (Pew Research Center, 2013, 2015), I recruited low-income MA and CA immigrant families, allowing investigation of whether group differences are independent of SES.

There is evidence of significant differences between parenting practices among Mexican American and Chinese American parents versus Western/American parents. Specifically, compared to European American parents, both Mexican and Chinese American parents scored higher on authoritarian parenting and lower on authoritative parenting (Calzada, Huang, Anicama, Fernandez, & Brotman, 2012; Chao, 1994; Knight, Virdin, & Roosa, 1994; Ruiz, Roosa, & Gonzalez, 2002). These differences in parenting styles are often attributed to cultural values. For example, among Mexican American parents, *respeto* is highly valued and emphasizes obedience and consideration of adults and those in authority (Calzada, Fernandez, & Cortes, 2010; Gonzalez-Ramos, Zayas, & Cohen, 1998; Guilamo-Ramos et al., 2007). Similarly, among Chinese American parents, filial piety emphasizes respect and obedience for one's parents and elders (Chao, 1994, 2000). In addition, both Mexican and Chinese cultures are considered collectivistic or interdependent and emphasize group harmony over the individual. In contrast, in Western/American culture, independence and assertiveness are highly valued and inform parenting goals and practices.

Although there have been broad generalizations made about how Mexican and Chinese American parents differ from European American parents in the US, researchers have not examined how cultural values create differences between Mexican and Chinese American parents. How are the concepts of *respeto* and filial piety similar and different? Tamis-LeMonda and colleagues (2008) argue that categorizing cultural groups based on the collectivism versus individualism dichotomy ignores the coexistence of both cultural values across all groups. Therefore, it is critical to compare groups that have traditionally been categorized similarly to understand the nuances of their cultural values and how those values interact with each other in a given context. This is especially important in the US, where 1 in 4 children is from an immigrant family, which requires the US to have policies and interventions to help a diverse group of families.

Based on self-efficacy theory (Bandura, 1995), I expected there to be significant associations among parents' cultural orientation, parenting stress, parenting self-efficacy, parenting practices, and child outcomes for Mexican and Chinese American immigrant mothers. However, given the lack of existing studies that directly compare Mexican and Chinese American immigrant families on parenting self-efficacy, I did not make any a priori hypotheses about mean level differences among the two groups on parenting self-efficacy or whether the strength of those associations would differ by cultural group.

Present Study

For intervention programs to target parenting self-efficacy, it is crucial to understand what factors influence parenting self-efficacy and how parenting self-efficacy can influence children's adjustment. Furthermore, because parenting is embedded in culture and parenting self-efficacy is, as I have argued, context-specific, it is important to examine precursors to and consequences of parenting self-efficacy across different cultural groups and across different contexts. In the present study, I used cross-sectional data from a sample of low SES Mexican and Chinese American immigrant mothers of preschoolers to address four aims.

Aim 1: To examine the unique associations between parenting context (i.e., mothers' cultural orientations and parenting stress) and immigrant mothers' parenting self-efficacy. Parenting self-efficacy is influenced by parents' personal context. When parenting norms and practices are congruent with parent's cultural context, they are more likely to have mastery experiences and vicarious experiences as well receive verbal persuasion. I hypothesized that maternal American cultural orientation among Mexican American and Chinese American mothers will be positively associated with parenting self-efficacy, such that mothers who identify more with American culture will report higher parenting self-efficacy. Given that orientation to heritage culture may facilitate or hinder parenting self-efficacy depending on specific context, examining the association between heritage cultural orientation and parenting self-efficacy was an exploratory aim. Last, I expected that parents with high levels of parenting stress will be less likely to engage in mastery experiences and, will in turn, report less parenting self-efficacy.

Aim 2a: To examine the unique associations between parenting self-efficacy and authoritative and authoritarian parenting practices, controlling for parenting context. According to Bandura (1995, 1997), self-efficacy is a significant predictor of an individual's behavior because highly efficacious individuals are confident, persistent, and more effortful when they approach a relevant task. Therefore, it is hypothesized that parenting self-efficacy will be associated with effective parenting practices that are also characterized by greater parental warmth and sensitivity. Given that parenting styles are defined by their level of warmth and control, I hypothesize that parenting self-efficacy will be positively associated with authoritative parenting and negatively associated with authoritarian parenting.

Aim 2b: To examine whether parenting self-efficacy statistically mediates the association between (a) cultural orientations and parenting stress with (b) authoritative and authoritarian parenting. There is evidence to support the impact of cultural orientation and parenting stress on parenting practices. Furthermore, cultural orientation and parenting practices have been found to be associated with parenting self-efficacy. Therefore, I hypothesized that parenting self-efficacy will statistically mediate the association between cultural orientation and parenting stress, and parenting styles. Specifically, greater American orientation and less parenting stress will be associated with more parenting self-efficacy, which will be associate with greater authoritative parenting.

Aim 3a: To examine the direct associations between mothers' parenting self-efficacy and children's socio-emotional adjustment. Parents who are efficacious use parenting practices intended to and proven to facilitate their children's development. I expect parenting self-efficacy to be positively associated with children's socio-emotional adjustment, such that parenting self-efficacy is positively associated with prosocial behaviors and negatively associated with internalizing and externalizing problems.

Aim 3b: To examine whether parenting styles statistically mediates the association between mothers' parenting self-efficacy and children's socio-emotional adjustment. Self-efficacy theory claims that parenting self-efficacy should influence children's outcomes due to its influence on parenting behaviors. Therefore, I expect that parenting styles will statistically mediate the association between parenting self-efficacy and children's socio-emotional outcomes.

Aim 4: To compare cultural differences in parenting and parenting self-efficacy between low-income Mexican American and Chinese American immigrant families. Because there are similarities and differences between Mexican and Chinese American immigrant parents' parenting values and practices, the purpose of this exploratory aim was to identify whether any of the above associations differs by cultural group and if there were any mean-group differences in parenting self-efficacy.

Method

Participants

The sample consisted of 45 Mexican American (MA) and 43 Chinese American (CA) immigrant mothers and their children who participated in a cross-sectional study on the bilingual and socio-emotional development of dual language learners. All 88 children were enrolled in Head Start programs and were 3 to 5 years of age (M = 54.3 months, SD = 7.07). The sample had slightly more girls (59%) than boys (41%). Among the children, 18% were 1st generation (children and their parents were foreign-born), 76% were 2nd generation (children were US-born and at least one parent was foreign-born), and 6% were 3rd generation (children and their parents were US-born). Although the MA and CA children did not differ significantly in child age or gender, they did vary by generational status. All 45 MA children were born in the U.S. (40 were 2nd generation and 5 were 3rd generation). In contrast, only 27 of the 43 CA children were born in the US, and they were all 2nd generation. The 1st generation (foreign-born) CA children had lived in the US on average for two years (range = 7-51 months, SD = 14.27).

Mothers ranged in age from 21 to 46 years old (M = 34.53 years, SD = 6.31). Most mothers (92%) were married or living with a partner and 8% were single parents (e.g., divorced, widowed, or never married). Most mothers (90.9%) were foreign-born and had lived in the U.S. for an average of 9.04 years (range = 0-28 years, SD = 6.18). Mothers' years of education ranged from 0 years (one mother reported never attending school) to 18 years (Master's degree); 41% of mothers reported less than a high school degree/GED. Over half of the mothers (58%) were unemployed, 33% were employed part-time or had occasional work, and 9% were employed full time. Families' per capita income was estimated by dividing the total family income for the past year by the number of household members (Datta & Meerman, 1980). Families' per capita income ranged from $1000 to $24,166.67 ($M$ = $5,178.21 SD = $3690). There were two significant differences in demographic characteristics between the MA and CA mothers. The MA mothers on average were younger (M = 31.25 years old) than the CA mothers (M = 37.88

years old) and had lived in the U.S. longer (M = 12.37 years) than the CA mothers (M = 6.02 years).

Procedures

Recruitment and screening. First, our team formed partnerships with Head Start centers serving Mexican American and Chinese American families in the San Francisco Bay Area. Next, bilingual research staff recruited families by attending parent meetings and passing out fliers during children's drop off and pick up times. During recruitment, the project was described as a research study examining the association between Mexican American and Chinese American preschoolers' bilingual and socio-emotional development. Interested parents provided their contact information and bilingual staff conducted phone screenings to determine families' eligibility. The eligibility criteria were as follows: (1) target child was enrolled in a Head Start center-based program; (2) child was between the ages of 3.0 and 5.9 years; (3) child had no history of speech and language problems based on parent's report (e.g., speech delay or history of/current speech and language therapy); and (4) both parents identified as Mexican or Chinese.

Assessment. The parent-child dyad participated in a 2.5-hour assessment session, which took place either in the research laboratory (69%) or in the family's home (31%) based on family's preference. The assessment session consisted of parent questionnaires, child language and executive functioning assessments, child emotion regulation tasks, and parent-child interaction tasks. The parent and child were assessed in separate rooms/areas by trained bilingual undergraduate research assistants. Parents were given the choice to complete questionnaires on their own or to have research assistants interview them based on their preference and literacy level. Bilingual research assistants were always available to answer questions for parents who chose to complete questionnaires independently. All written materials were available in English, Spanish, and simplified and traditional Chinese. Interviews were conducted in parents' preferred language (English, Spanish, Mandarin, or Cantonese). Most parents (90%) completed the questionnaires in their heritage language (Spanish, Mandarin, or Cantonese). Children completed language assessments in both English and in their heritage language. Children completed executive functioning and emotion tasks in their dominant language based on parent report and observations from the language assessments. Most children (82%) completed the tasks in their heritage language and 18% completed them in English. There were no cultural group differences in the proportions of parents or children who completed the assessment in English versus their heritage language. Parents were compensated $70 for their participation and children were given a small prize. Families that commuted to the lab were given an additional $30 to cover transportation costs.

Measures

The present data emanate from parent questionnaires on mother's cultural orientation, parenting stress, parenting self-efficacy, parenting style, children's socio-emotional adjustment, and family demographics. Questionnaires that had not been previously used with Spanish- or Chinese-speaking samples (i.e., Berkeley Parenting Self-Efficacy Scale) were translated and back-translated by our team of bilingual researchers based on the procedures recommended by Kim, Nair, Knight, Roosa, and Updergraff (2009).

Family socio-demographics (parent report). The Family Demographics and Migration History Questionnaire has been used with Mexican American immigrant families in English and Spanish (Roosa et al., 2008) and with Chinese American immigrant families in English,

Cantonese, and Mandarin (Chen et al., 2014). For this paper, we examined the following variables based on the literature supporting their association with parenting self-efficacy, parenting practices, and/or children's socio-emotional adjustment: child's sex, child's age (months), child's country of birth, child's years in the US, mother's age (years), mother's country of birth, father's country of birth, mother's years in the US, mother's highest level of education, and household income. Child's, mother's, and father's country of birth were used to determine child's generation status such that any child born outside the US was coded as 1st generation, any child born in the US with at least one foreign-born parent was coded as 2nd generation, and any child who was born in the US and whose parents were both born in the US was coded as 3rd generation. Maternal education was coded such that: 0 = did not attend school, 5 = less than high school, 11 = some high school, 11.5 = GED (General Equivalency Diploma), 12 = high school graduate, 13 = some college, vocational, or technical school, 14 = technical school, vocational school, or certification, 15 = Associate's degree, 16 = Bachelor's degree, 18 = Master's degree, and 20 = Doctorate (JD, MD, PhD). Families' per capita income was estimated by dividing the total family income for the past year by the number of household members (Datta & Meerman, 1980).

Parents' cultural orientations (parent report). The Cultural and Social Acculturation Scale (CSAS; Chen & Lee, 1996; Chen & Tse, 2010) is a 32-item bi-dimensional measure that assesses individuals' orientation towards their host culture (i.e., U.S. American culture) and their heritage culture (i.e., Mexican or Chinese culture) independently. It assesses cultural orientation in three domains: language proficiency (e.g., "How well do you understand spoken English/Chinese?"), social relationships (e.g., "How many Caucasian American/Chinese friends do you have?"), and media use (e.g., "How often do you read English/Chinese newspapers?"). Because the measure required mothers to respond using Likert scales that vary from 1- 4 or 1-7, standardized item scores were used to compute the average across subscales and create composites for American and heritage cultural orientations.

This measure has shown satisfactory internal consistency in a previous sample of Chinese American mothers (Chen & Tse, 2010; Garrett-Peters & Fox, 2007) but has not been used with Mexican American mothers to the best of our knowledge. For the present study, the alphas were .84 for American cultural orientation and .75 for heritage cultural orientation. Furthermore, the reliability among Mexican mothers was adequate (.86 and .72 for American and heritage culture, respectively) and similar to that of the Chinese American mothers (.79 and .81, for American and heritage culture, respectively).

Parenting stress (parent report). Two subtests from the Parenting Stress Index-Short Form (PSI-SF; Abidin, 1995) were used to assess parenting stress. Parental distress (PD) consists of 12 items and represents personal stress resulting from parenting role (e.g., "I feel trapped by my responsibilities as a parent"). Parent-child dysfunctional interaction (PCDI) consists of 12 items and represents parents' dissatisfaction with interactions with their children (e.g., "My child rarely does things that make me feel good"). Parents respond using a 5-point Likert scale from "strongly disagree" to "strongly agree." The sum of each set of items was calculated to obtain the PD and PCDI scores, where high scores indicate greater parental stress.

The PSI-SF has shown convergent validity with the original Parenting Stress Index (PSI; Abidin, 1983) and concurrent and predictive validity with other indicators related to parenting stress (Haskett, Ahern, Ward, & Allaire, 2006). The PSI-SF has been used with diverse populations and translated into multiple languages, including Spanish and Chinese. There is evidence of concurrent validity and adequate test-retest reliability and internal reliability for PD

and PCDI in Spanish (Barroso, Hungerford, Garcia, Graciano, & Bagner, 2016). There is evidence of concurrent and discriminant validity, and adequate internal consistency for the PSI in Chinese (Chan, 1994; Tam, Chan, & Wong, 1994; Yeh, Chen, Li, & Chuang, 2001). In the current study, PD and PCDI demonstrated good internal consistency using the total sample (.89 for both scales) and across Mexican (α= .89 and .79 for PD and PCDI, respectively) and Chinese American samples (α= .90 for both scales).

Parenting self-efficacy (parent-report). The Berkeley Parenting Self-Efficacy Scale (BPSE; Holloway & Behrens, 2002) is a task-specific parenting self-efficacy measure that assesses parents' confidence in their ability to use specific parenting behaviors (Maternal Strategies - 10 items; e.g., "Let my child know I love him/her") and to teach their child specific skills (Child Outcomes - 21 items; e.g., "To try to do things on his/her own"). Parents rate each item on a 6-point Likert scale ranging from "a little confident" to "very confident." The mean of all items is calculated to create a composite score for parenting self-efficacy. The BPSE has shown good internal consistency and construct validity among US and Japanese samples (Holloway, Suzuki, Yamamoto, & Behrens, 2005; Suzuki, 2010; Suzuki, Holloway, Yamamoto, & Mindnich, 2009). In the present study, the BPSE was translated into Spanish and Chinese. The alpha for parenting self-efficacy was .98 for the total sample, and .97 and .98 for Mexican and Chinese mothers, respectively.

Parenting practices (parent report). Mothers completed the Parenting Styles and Dimensions Questionnaire - Short Form (PSDQ-SF; Robinson, Mandleco, Olsen, & Hart, 2001). Mothers used a 5-point Likert scale (1 = never to 5 = always) by rating how often they exhibit 32 parenting behaviors. Composite scores were computed for authoritative (e.g., "I am responsive to child's feelings or needs") and authoritarian (e.g., "Uses physical punishment as a way of disciplining our child") parenting styles.

While there is limited data reported on the psychometrics of the PSDQ-SF, the PSDQ has adequate internal consistency as well as evidence of concurrent and discriminant validity (Olivari, Tagliabue, & Confalonieri, 2013). PSDQ-SF has been used previously with a sample of Mexican American families of preschool-aged children and demonstrated satisfactory reliability for authoritative and authoritarian parenting (Calzada et al., 2012). Although the short form of the PSDQ has not been used with Chinese populations, the original 52-item version has shown satisfactory internal reliability in Chinese (Chen et al., 2014, Wu et al., 2002; Zhou et al., 2008). In the present sample, alphas were .88 for authoritative parenting and .62 for authoritarian parenting across the sample. Reliability was similar within cultural groups for authoritative parenting (α = .83 for MA; α = .91 for CA). For authoritarian parenting, reliability was lower for Mexican mothers (α = .58) compared to Chinese mothers (α = .72 for Chinese).

Children's socio-emotional adjustment (parent report). The Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997) is a 25-item parent questionnaire used to screen children's psychological adjustment. Mothers use a 3-point Likert scale (0 = not true to 2 = certainly true) to rate how true each statement is of their child's behavior across five domains: prosocial behavior (5 items, e.g., "Often volunteers to help others"), conduct problems (5 items, e.g., "Often has temper tantrums or hot temper"), hyperactivity (5 items, e.g., "Restless, overactive, cannot stay still for long"), emotional problems (5 items; e.g., "Often unhappy, downhearted or tearful"), and peer problems (5 items, e.g., "Picked on or bullied by other children"). In addition, composite scores can be computed for children's externalizing problems (i.e., averaging items across conduct problems and hyperactivity) and internalizing problems (i.e., averaging items across emotional problems and peer problems).

The SDQ has demonstrated adequate internal and test-retest reliability as well as convergent, concurrent, and discriminant validity (Bourdon, Goodman, Rae, Simpson, & Koretz, 2005, Goodman, 2001, Goodman & Scott, 1999, Muris, Meester, & Van den Berg, 2003). The SDQ has been used in Spanish and Chinese in previous studies and demonstrated satisfactory internal reliability across most subscales (α's > .70) (Lai et al., 2010; Rodriguez-Hernandez et al., 2012). Among a Chinese sample, the emotional problems (α= .66), conduct problems (α=.62) and peer problems (α=.45) had the weakest internal consistency reliabilities (Lai et al., 2010). Among a Spanish sample, the peer problems scale (α=.64) had the lowest reliability (Rodriguez-Hernandez et al., 2012). In the present sample, alphas ranged from .29 to .72 for prosocial behavior (α's = .72 across sample, .64 for MA, .78 for CA), externalizing problems (α's =. 67 across sample, .72 for MA, .62 for CA), hyperactivity (α's =.56 across sample, .54 for MA, .62 for CA), conduct problems (α's = .43 across sample, .54 for MA, 23 for CA), internalizing problems (α's =.46 across sample, .58 for MA, .27 for CA), emotional problems (α's = .53 across sample, .55 for MA, .51 for CA), and peer problems (α's = .29 across sample, .36 MA, .20 CA). While low internal consistency of subscales could be attributed to only having five items per subscale (Tavakol & Dennick, 2011), there were also some significant discrepancies between reliabilities obtained for Mexican and Chinese mothers. Only scales with a reliability of at least .5 for both cultural groups were used in the present analyses: prosocial behavior, externalizing problems, and emotional problems.

Results

Analyses were conducted in the following order. First, all variables were screened for normality. Second, correlations were used to examine associations among demographic characteristics, acculturation variables, parenting stress variables, parenting self-efficacy, parenting styles, and children's socio-emotional adjustment. Third, hierarchical multiple regressions were used to address study aims 1 to 3. Although the sample size did not provide adequate power to create an interactive variable to examine cultural group differences, culture was included as a main dummy variable, where 0 = Mexican and 1 = Chinese, in all regression analyses (aim 4).

Descriptive Statistics

Descriptive statistics for all study variables are provided in Table 1. All variables were screened for normality using the recommended cutoffs of 2 and 7 for skewness and kurtosis, respectively (West, Finch, & Curran, 1995). All main variables were normally distributed except for per capita income, which was positively skewed (most mothers reported low income) and had a high kurtosis (there was little variability). This finding is consistent with our low socioeconomic (Head Start) sample.

In addition, *t*-tests were used to compare the means of study variables between Mexican American and Chinese American families. On average, Mexican American mothers had spent more years in the US, reported greater parenting self-efficacy and authoritative parenting, and reported less parent-child dysfunctional interactions (PCDI) compared to Chinese American mothers (see Table 2).

Correlations

Correlations among demographic and main study variables are provided in Table 3.

Correlations between family demographic and study variables. Children's generation status was positively correlated with American cultural orientation (r=.29, p<.01) and parenting self-efficacy (r=.30, p<.01). The more years mothers spent in the US, the higher their American orientation (r=.32, p<.01), parenting self-efficacy (r=.26, p<.05), authoritative parenting (r=.22, p<.05), and their children's prosocial behavior (r=.23, p<.05). Higher maternal education was associated with a higher maternal American orientation (r=.26, p<.05), and with lower parent-child dysfunctional interaction (r=-.31, p<.01) and lower authoritarian parenting (r=. -21, p<.05). Higher per capita income was associated with mothers' higher heritage cultural (r=.25, p<.05) and American orientation (r=.34, p<.01), and more prosocial behavior (r=.22, p<.05). Higher per capita income was also associated with mothers reporting their children having fewer emotional problems (r=-.25, p<.05) and fewer externalizing problems (r=-.25, p<.05).

Finally, there were some significant correlations comparing cultural groups such that compared to the MA families, CA mothers reported higher parent-child dysfunctional interaction (r=.29, p<.01), lower parenting self-efficacy (r=-.45, p<.001), and lower authoritative parenting (r=-.24, p<.05). To test whether there were significant differences in correlations between MA and CA families, Fisher's r to z transformations were performed. There were three differences found between cultural groups. The association between parenting self-efficacy and American cultural orientation was marginally different by cultural group (z= -1.76, p<.10), such that parenting self-efficacy was significantly and positively associated with American cultural orientation for CA mothers (r=.45, p<.01), but not MA mothers (r=.10, p=.53). The association between parenting self-efficacy and parental distress was significantly different by cultural group (z=-2.41, p<.05), such that parental distress was marginally and negatively correlated with parenting self-efficacy among MA mothers (r=-.287, p<.10), but not among CA mothers (r=.23, p=.14). Finally, the association between parenting self-efficacy and children's prosocial behaviors was marginally different by cultural group (z=-1.84, p<.10), such that there was a stronger positive association between parenting self-efficacy and prosocial behaviors among CA children (r=.75, p<.001) compared to MA children (r=.53, p<.001).

Correlations among study variables. Correlations among study variables are provided in Table 4. Mother's heritage cultural orientation was positively associated with parenting self-efficacy (r=.43, p<.001), authoritative parenting (r=.50, p<.001), and children's prosocial behavior (r=.39, p<.001). Similarly, mother's American cultural orientation was positively associated with parenting self-efficacy (r=.32, p<.01), authoritative parenting (r=.40, p<.001), and children's prosocial behavior (r=.41, p<.001). The parenting stress variables, parental distress and parent-child dysfunctional interaction, were positively correlated with each other (r=.57, p<.001) and positively associated with authoritarian parenting, children's emotional problems, and externalizing problems. In addition, parent-child dysfunctional interaction was also negatively associated with authoritative parenting (r=-.25, p<.05) and children's prosocial behavior (r=-.24, p<.05). Parenting self-efficacy was associated with greater authoritative parenting (r=.74, p<.001) and children's higher prosocial behavior (r=.69, p<.001). Finally, among variables of children's socio-emotional adjustment, externalizing and emotional problems were positively associated with each other (r=.33, p<.01) and externalizing problems was negatively associated with prosocial behavior (r=-.22, p<.05).

Hierarchical Regression Analyses

Aim 1. Hierarchical regression analyses were conducted to examine the unique associations of mothers' cultural orientations, parenting stress, and demographic variables to

parenting self-efficacy. Predictors were entered in three steps: (1) covariates, including cultural group, child's generation status, mother's years in the US, mother's education, and per capita income; (2) mother's heritage cultural orientation and American cultural orientation; (3) mother's parental distress and parent-child dysfunctional interaction. The regression coefficients and R^2 values are reported in Table 5.

At Step 1, cultural group was a significant predictor such that compared to CA mothers, the MA mothers reported higher parenting self-efficacy (β=-.51, p< .001). At Step 2, mothers' heritage cultural orientation (β=.32, p<.01) and American cultural orientation (β=.19, p<.05) were both positively associated with parenting self-efficacy. At Step 3, parent-child dysfunctional interaction was negatively associated with parenting self-efficacy (β=-.24, p< .05).

Aim 2a. To examine the unique associations between parenting self-efficacy and parenting practices, two hierarchical regression analyses were conducted to predict authoritative and authoritarian parenting. Predictors were entered in the same order as Aim 1 with the addition of a fourth step including parenting self-efficacy (see Table 6).

For the regression predicting authoritative parenting, at Step 1, mother's education marginally predicted higher authoritative parenting (β=.21, p< .10). At Step 2, mothers' heritage cultural orientation (β=.46, p< .001) and American cultural orientation (β=.26, p< .05) were both positively associated with higher authoritative parenting. At Step 3, parent-child dysfunctional interaction negatively predicted authoritative parenting (β=-.34, p< .01). At Step 4, parenting self-efficacy uniquely and positively predicted authoritative parenting (β=.59, p<.001).

For the regression predicting authoritarian parenting, no significant predictors were found.

Aim 2b. Mediation analyses were conducted to test whether parenting self-efficacy statistically mediates the relations between (a) American cultural orientation, heritage cultural orientation, parent-child dysfunctional interaction, and parenting distress; and (b) authoritative and authoritarian parenting.

The indirect effects were estimated using the PROCESS procedure and were considered significant if the 95% bias-corrected boot strapped confidence intervals for the indirect effects were not zero (Hayes, 2013). There were three significant indirect effects: (a) the indirect path from parent's American cultural orientation to authoritative parenting via parenting self-efficacy, indirect effect = .19, 95% confidence interval (CI) = [0.014, .417]; (b) the indirect path from parent's heritage cultural orientation to authoritative parenting via parenting self-efficacy, indirect effect =.21, 95% CI = [0.040, .413]; and (c) the indirect path from parent-child dysfunctional interaction to authoritative parenting via parenting self-efficacy, indirect effect = -.16, 95% confidence interval (CI) = [-.285, -.011].

Aim 3a. To examine the association between mothers' parenting self-efficacy and children's socio-emotional adjustment, three hierarchical regressions analyses were conducted to predict children's prosocial behavior, externalizing problems, and emotional problems. Variables were entered in the same order as Aim 2.

For the regression predicting prosocial behaviors (See Table 7), at Step 1 per capita income marginally predicted more prosocial behaviors (β=.21, p< .10). At Step 2, mothers' heritage cultural orientation (β=.29, p< .05) and American cultural orientation (β=.24, p< .05) were both positively associated with prosocial behavior. At Step 3, parent-child dysfunctional interaction negatively predicted prosocial behavior (β=-.37, p< .01). At Step 4, parenting self-efficacy positively predicted prosocial behavior (β=.62, p<.001).

For the regression predicting externalizing problems (See Table 8), at Step 1 cultural group was a marginal predictor such that compared to CA mothers, the MA mothers reported higher externalizing problems (β=-.27, p< .10) in their children. In addition, the number of years mothers had in the US (β=-.34, p< .05) and their education (β=-.23, p< .05) negatively predicted children's externalizing problems. At Step 4, parenting self-efficacy was negatively associated with externalizing problems (β=-.35, p< .05).

In the regression predicting emotional problems (See Table 9), in Step 2, mothers' American cultural orientation was a positive predictor of children's emotion problems (β=.27, p< .05).

Aim 3b. Mediation analyses were conducted to test whether parenting styles statistically mediates the relations between (a) parenting self-efficacy and (b) children's socio-emotional adjustment. First, the association between parenting styles and children's socio-emotional adjustment was examined by repeating the three hierarchical regression analyses from Aim 3a with the addition of a fifth step including authoritative and authoritarian parenting. At Step 5, authoritative parenting was positively associated with children's prosocial behavior (β=.33, p<.05) and marginally and negatively associated with externalizing problems (β=-.30, p< .10). There were no associations between parenting styles and children's emotion problems.

Then, mediation analyses were conducted to test whether parenting style mediates the relations between (a) parenting self-efficacy and (b) children's prosocial behaviors and externalizing problems. The indirect effects were estimated using the PROCESS procedure (Hayes, 2013). There was one significant indirect effect: authoritative parenting significantly mediated the link between parenting self-efficacy and children's prosocial behaviors, indirect effect = .38, 95% confidence interval (CI) = [0.031, .792].

Aim 4. To examine cultural differences in parenting and parenting self-efficacy between Mexican American and Chinese American mothers, all the above analyses included a dummy variable for cultural group where 0 = Mexican American and 1 = Chinese American in the first step of the hierarchical regression analyses. Findings indicate that Mexican American mothers reported higher parenting self-efficacy compared to Chinese American mothers (β= -.51, p< .001). There was also a marginal finding in which Mexican American mothers reported more externalizing problems than Chinese American mothers (β=-.27, p< .10). I ran additional analyses with an ANCOVA by cultural group controlling for demographic characteristics (i.e., mother's age, time in the U.S., education, family income, and child's age) to further evaluate potential mean differences in parenting self-efficacy by cultural group. Results indicated that there was a significant difference in parenting self-efficacy based on cultural group after controlling for demographic characteristics (F(1,70) = 22.52, p<.001).

Discussion

To the best of my knowledge, this is the first study to examine the links among cultural orientation, parenting stress, parenting self-efficacy, parenting styles, and preschoolers' socio-emotional adjustment in low-income Mexican American (MA) and Chinese American (CA) immigrant families. Results indicated that mothers' cultural orientation to both their heritage culture and American culture were uniquely associated with greater parenting self-efficacy. In contrast, higher parental stress was related to lower parenting self-efficacy. Consistent with self-efficacy theory, parenting self-efficacy was positively associated with authoritative parenting and mediated the associations between American cultural orientation, heritage cultural orientation, and parenting stress, and authoritative parenting. In addition, parenting self-efficacy was

positively associated with children's prosocial behaviors and negatively associated with externalizing problems. Authoritative parenting mediated the associated between parenting self-efficacy and children's prosocial behaviors. Lastly, some cultural group differences between Mexican American and Chinese American immigrant families were identified. Specifically, Mexican American mothers reported greater parenting self-efficacy than Chinese American mothers. Despite the cultural group differences in the mean of parenting self-efficacy, the pattern of associations between parenting self-efficacy and other parenting variables was generally similar cultures, although some associations were only significant or were stronger for one group versus another.

Parenting Context and Parenting Self-Efficacy

The study's first aim was to examine how the cultural orientation and parenting stress are associated with parenting self-efficacy. Specifically, given that parenting values and practices are informed by the cultural context and immigrant mothers are exposed to two cultural contexts, I examined how Mexican American and Chinese American mothers' cultural orientation to their heritage culture and American culture were associated to their parenting self-efficacy. I found that immigrant mothers with higher American cultural orientation reported higher parenting self-efficacy. This finding is consistent with the hypothesis that parents who are more acculturated are better able to navigate the host culture and therefore feel more capable and effective at supporting their child (Costigan & Koryzma, 2011). For example, parents who speak English are better able to communicate with professionals on child development (e.g., pediatrician, preschool teacher), which facilitates and supports their effective parenting. Furthermore, immigrant parents with greater orientation to their host culture may adopt parenting practices that are consistent with the norms of their host culture and therefore receive more verbal persuasion from professionals.

In addition, mothers' heritage cultural orientation was positively associated with parenting self-efficacy. This finding is consistent with Lau's (2010) adaptive cultural perspective, which posits that different dimensions of cultural orientation may have benefits depending upon context. In this case, mothers who maintain their heritage language and maintain an ethnic community have the resources to support their traditional parenting practices despite being in a different cultural context. Furthermore, by maintaining their heritage language and social network, mothers may also be better able to support their child in developing a heritage cultural orientation. In addition, parents' heritage cultural orientation is not in isolation. Choi, Kim, Kim, and Park (2013) found that Korean immigrant parents retained parenting values and practices from their heritage culture while simultaneously adopting some Western parenting values and practices.

Finally, I hypothesized that parental stress would reflect parents' perception that their abilities are not sufficient to address their parenting goals effectively and would be negatively associated with parenting self-efficacy. My hypothesis was partially supported. Among the two parenting stress dimensions, parent-child dysfunctional interaction was negatively associated with parenting self-efficacy, but parental distress was not related to parenting self-efficacy. This finding was surprising given past research has found an inverse association between parental stress and parenting self-efficacy (Jackson & Huang, 2000; Reece & Harkless, 1998; Suzuki, 2010). However, Bandura (1995) described self-efficacy as domain-specific such that there is a modest association between general self-efficacy and domain specific self-efficacy, including parenting self-efficacy. On the Parenting Stress Index, parent-child dysfunctional interaction

items ask about child behaviors that parents are likely to believe reflect their parenting abilities or effectiveness (e.g., "My child's sleeping or eating schedule was much harder to establish than I expected"). However, parental distress items on the PSI seem to capture a general feeling of distress (e.g., "I often have the feeling that I cannot handle things very well") or distress about the impact of parenting in other domains (e.g., "Having a child has caused more problems than I expected in my relationship with my spouse"), rather than distress over one's effectiveness as a parent. Consistent with this description of parenting stress dimensions, Raikes and Thompson (2005) found that the parental distress dimension of the PSI was positively associated with a general self-efficacy measure. Furthermore, Sevigny and Loutzenhiser (2009) found a weaker negative correlation between parenting stress and general self-efficacy compared to parenting self-efficacy. Here, parental distress was not correlated with parenting self-efficacy. However, the correlation between parental distress and parenting self-efficacy was significantly different by cultural group, such that parental distress was negatively associated with parenting self-efficacy for MA mothers but not significantly for CA mothers.

Parenting Self-Efficacy and Parenting styles

Parenting self-efficacy is theorized to influence parenting practices because efficacious individuals believe they are capable of effectively addressing their parenting goals and their child's needs (Bandura, 1995). Parenting self-efficacy has been found to be positively associated with parental warmth and control and positive parenting (Dumka et al., 2010; Izzo, Weiss, Shanahan, & Rodriguez-Brown, 2000; Jones & Prinz, 2005; Teti & Gelfand, 1991). Therefore, greater parenting self-efficacy was hypothesized to be positively associated with parental warmth and sensitivity, which are characteristic of an authoritative parenting style (Baumrind, 1978). Consistent with my hypothesis, greater parenting self-efficacy was uniquely associated with higher authoritative parenting.

Parenting self-efficacy has also been negatively associated with parental laxness and overreactive harsh/punitive parenting (MacPhee, Fritz, & Miller-Heyl, 1996; Sanders & Wooley, 2005). Therefore, I hypothesized that parenting self-efficacy would be negatively associated with coercive and harsh parenting, which are characteristic of an authoritarian parenting style (Baumrind, 1978). I did not find any significant predictors of authoritarian parenting. However, it is important to note that the authoritarian subscale of the PSDQ had a relatively low reliability (α=.62). Furthermore, examination of reliability by cultural group revealed that reliability was lower for Mexican American mothers (α=.58) compared to Chinese American mothers (α=.72), despite adequate reliability in a similar Mexican American sample in other another study (Calzada et al., 2012). Given that parenting practices are developed within a cultural context, it is possible that despite an authoritarian construct existing for Mexican American mothers (low warmth, high control), the specific parenting behaviors that reflect this parenting style may differ for Mexican American immigrant mothers raising their children in the US.

Furthermore, I hypothesized that the associations between cultural orientation and parenting stress and parenting style would be mediated by parenting self-efficacy. Heritage cultural orientation and American cultural orientation were both positively associated with authoritative parenting via positive associations with parenting self-efficacy. This finding indicates that, at least in the context of statistical mediation in a cross-sectional investigation, parenting self-efficacy is a key mechanism by which contextual factors influence parenting styles. In contrast, parent-child dysfunctional interaction was negatively associated with authoritative parenting via a negative association with parenting self-efficacy. This finding

supports the idea that when parents believe that their skills are not sufficient to effectively meet the parenting demands, they are less likely to use more adaptive parenting styles. Furthermore, evidence suggests low parenting self-efficacy is also associated with parents' maladjustment, which in turn is negatively associated with positive parenting practices (Costigan & Koryzma, 2011).

Parenting Self-Efficacy and Children's Socio-Emotional Adjustment

I also sought to understand whether parenting self-efficacy uniquely predicted children's socio-emotional adjustment. I found that mothers with greater parenting self-efficacy reported having children with more pro-social behaviors and fewer externalizing problems. In addition, mother's heritage cultural orientation and authoritative parenting were also positively associated with more pro-social behaviors. Statistical mediation analyses revealed found that authoritative parenting mediated the association between parenting self-efficacy and children's prosocial behaviors. It may be that parenting self-efficacy may promote prosocial behaviors through its impact on authoritative parenting, while self-efficacy may reduce externalizing problems through another path. In contrast, parenting self-efficacy may not be associated with emotional problems, at least during this developmental period. Parenting goals for preschool-aged children may focus more on socializing children to behave appropriately as they prepare to begin school, so parenting self-efficacy may be more directly associated to children's behavioral regulation.

Differences in Parenting Self-Efficacy between Mexican and Chinese American Mothers

As an exploratory aim, cultural group was included in all analyses to examine differences in parenting self-efficacy between Mexican and Chinese American mothers. I found mean group differences such that Mexican American mothers reported higher parenting self-efficacy as well as higher authoritative parenting relative to Chinese American mothers. These differences in parenting self-efficacy may reflect other differences in Mexican American and Chinese American immigrant families' contexts. For example, although number of children was not assessed in the present study, birth rates among immigrant families in the US suggest that Mexican American families have more children than Chinese American families (Camarota, 2005). While larger families can increase stress and economic hardship, having many children may also provide mothers with more opportunities to have mastery experiences and, in turn, build their parenting self-efficacy. Furthermore, as mothers gain more parenting self-efficacy, they are less overwhelmed and are less vulnerable to stress. It is also possible that Mexican American mothers' higher authoritative parenting style, which research supports as having positive effects on children's outcomes across various cultural groups (Pinquart & Kauser, 2018), impacts their parenting self-efficacy. Children's positive outcomes reinforce parents' belief in their parenting abilities.

There were a few group differences among correlations. However, due to the study's limited statistical power for detecting group differences in correlations, these findings need to be interpreted with caution. Specifically, American cultural orientation was positively associated with parenting self-efficacy among Chinese American mothers but not Mexican mothers. There was also a stronger positive association between parenting self-efficacy and children's pro-social behaviors among Chinese American mothers compared to Mexican American mothers. Lastly, parental distress was marginally and negatively associated with parenting self-efficacy among Mexican American mothers, but parental distress was not associated with parenting self-efficacy among Chinese American mothers. These findings suggest the need for future studies to further

examine the similarities and differences between these two cultural groups—their cultural values as well as the context in which they parent—and to identify what accounts for differences among the groups. For example, cross-cultural research suggests that there are cultural differences in individuals' appraisals of stressors (Chung, Zhou, Eisenberg, & Wolchik, 2017). If one makes internal attributions, then difficult situations are more likely to have a negative impact on your self-efficacy. In contrast, if one makes external attributions, then stress may have less of an impact on one's self-efficacy. Context is also critical. Living in ethnic enclaves increases access to resources and social support from your heritage culture (Halpern & Nazroo, 2000; Zhou & Kim, 2006), making orienting to American culture less critical to one's parenting self-efficacy.

Limitations and Future Directions

This study had several limitations. First, all the data were obtained from mothers' questionnaire reports. To avoid self-report bias and shared method variances, including objective measures or multiple informants—or both—is necessary. One option would be to record parent-child interaction tasks and code parental practices that are expected to be directly related to mothers' parenting self-efficacy. This effort would allow researchers to examine how mothers' report of parenting self-efficacy is related to objective reports of parenting behavior. Including teacher reports of children's socio-emotional adjustment would also provide more information about the potential impact of parenting self-efficacy and parenting on children's outcomes. In all, reliance on a single-source report (maternal) for variables considered to be covariates, predictors, mediators, and outcomes can greatly limit any causal inferences that could be made.

Second, one reason mothers' cultural orientations were proposed as critical to the parenting context and parenting self-efficacy was the potential challenges faced when there is a discrepancy between parenting norms and practices in parents' heritage culture and parents' host culture. Mothers' cultural orientations were measured using a broad measure of behavioral acculturation including language, social relationships, and media use. Future studies would benefit from using measures that directly assess culturally-relevant parenting beliefs or develop a measure that directly asks parents about how different they perceive the parenting norms in their heritage culture to be from the parenting norms in their host culture. Because findings indicated that both heritage and American cultural orientation were positively associated with parenting self-efficacy, it is possible that high cultural orientation to any culture provides a framework for parenting and reinforces parenting self-efficacy. Alternatively, parents who can integrate parenting practices from both cultures may be most efficacious. Future studies should evaluate main effects as well as interactions between heritage and host cultural orientation and values, and their association with parenting self-efficacy.

Third, the cross-sectional design of the study cannot address the directionality of the relations between variables such as parenting stress, parenting styles, and parenting self-efficacy. All mediational analyses were statistical only. For example, although parenting stress may hinder the development of parenting self-efficacy, theory suggests that parenting self-efficacy may buffer against parenting stress. Similarly, whereas parenting self-efficacy might lead to a more authoritative parenting style, using an authoritative parenting style may lead to greater parenting self-efficacy. Parenting interventions that teach parenting skills have found increases in parenting self-efficacy post-intervention (Gross et al., 1995; Miller-Heyl, MacPhee, & Fritz, 1998; Pisterman et al., 1992; Wittkowski, Dowling, & Smith, 2016). However, it is difficult to disentangle whether changes in parenting skills caused increases in parenting self-efficacy or if parenting self-efficacy increased due to other factors (e.g., seeing intervention facilitators and

other parents effectively use parenting skills). Among the few longitudinal studies that have examined the directionality among the association between parenting self-efficacy and parenting practices, there is evidence that parenting self-efficacy impacts parenting behaviors (Dumka et al., 2010, Glatz & Buchanon, 2016). It is possible that parenting interventions are effective at changing parenting skills because they first change parenting self-efficacy which in turn facilitates shifts in parenting practices. New parenting skills may not generalize outside of the intervention setting unless parenting self-efficacy also increases. Parenting self-efficacy may also change as children transition through different developmental stages that require different parenting skills and shifts in parent-child relationship. Parenting itself can be viewed as a developmental task and one would expect changes in parenting as parents refine their parenting role over time. Longitudinal studies would allow for more robust tests of the bidirectional relations and highlight shifts in parenting self-efficacy over time.

Fourth, the sample included Mexican American and Chinese American mothers from an urban metropolitan area with a large concentration of immigrant residents. The results may not generalize to Mexican American and Chinese American immigrant families living in other geographical regions or to immigrant families from different ethnic groups. Furthermore, the study's small sample size hindered its ability to robustly examine the differences between Mexican American and Chinese American mothers. For example, a larger sample size would allow the creation of interaction variables to see if cultural group moderates the results found. Furthermore, examining the interaction of heritage and American cultural association may provide a more nuanced perspective as to when parenting self-efficacy is most influenced by cultural orientation.

Implications

Despite these limitations, this research contributes to the understanding of how parenting context influences parenting self-efficacy among the two largest immigrant groups in the US. Results suggest that interventions can target parenting self-efficacy and authoritative parenting to promote immigrant children's socio-emotional development and reduce their behavioral problems. In addition, interventions should target mothers who are recent immigrants to the US and have relatively low education level, which have been shown as risk factors for children's externalizing problems. Parenting interventions often focus on teaching parenting skills, but the new skills may not generalize outside of the intervention context or remain consistent once the intervention is completed if parenting self-efficacy is not high (Bandura, 1995). Parents need to feel capable and effective at using their new skills outside of the intervention setting for interventions to be most effective. There is some evidence that intervention-induced changes in parenting self-efficacy are associated with positive parenting practices and reduced parental stress (Gross et al., 1995; Miller-Heyl, MacPhee, & Fritz, 1998; Pisterman et al., 1992; Wittkowski, Dowling, & Smith, 2016). Assessing parenting self-efficacy pre- and post-intervention may be an important method to gauge whether parenting skills will generalize and remain consistent after intervention is completed. Findings also suggest that interventions may need to address whether stress, specifically parenting stress, is hindering the growth of parenting self-efficacy. By targeting parenting self-efficacy, interventions may also help buffer parents from future stressors impacting their parenting practices given that theory suggests that parenting self-efficacy helps parents more effectively face challenges.

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Table 1

Descriptive Statistics of Demographics and Study Variables

Variables	N	Min	Max	Mean	SD	Skewness	Kurtosis
Child Age	88	38	70	54.34	7.07	-.102	-.609
Mother's Age	87	21	46	34.53	6.31	-.317	-.593
Mother's Years in US	80	0	28	9.04	6.18	1.03	1.04
Mother's Education (Years)	88	0	18	11.12	3.78	-.77	-.09
Per Capita Income (Dollars)	84	1000	24166.67	5178.21	3690.00	2.61	9.70
Mother's Heritage Cultural Orientation	88	-1.33	1.01	-.002	.52	-.20	-.40
Mother's American Cultural Orientation	86	-.95	1.70	.002	.57	.46	-.48
Parental Distress	88	0	3.51	.44	.78	.57	.44
Parent Child Dysfunctional Interaction	88	0	3.64	.78	.72	1.51	3.57
Parenting Self-Efficacy	88	1.03	6.00	5.09	.85	-1.68	4.86
Authoritarian Parenting	88	1.00	3.67	1.75	.42	1.13	3.61
Authoritative Parenting	88	1.80	5.00	4.16	.62	-1.28	1.91
Prosocial	88	1	8	6.13	1.65	-.69	-.21
Externalizing Problems	88	0	13	5.97	3.00	.22	-.44
Emotion Problems	88	0	9	1.99	1.76	1.07	1.12

Table 2

Significant Differences between Mexican and Chinese American Families

Variables		N	Min	Max	Mean	SD	Skewness	Kurtosis
Parent's Age	Full Sample	87	21	46	34.53	6.31	-0.32	-0.59
	Mexican	45	21	42	31.25	6.03	0.005	-1.06
	Chinese	43	27	46	37.88	4.63	-0.12	-0.42
Mother's Years in US	Full Sample	80	0	28	9.04	6.18	1.03	1.04
	Mexican	38	5	28	12.37	6.11	1.15	0.54
	Chinese	42	0	17	6.02	4.51	.86	-.03
Parent-Child Dysfunctional Interaction	Full Sample	77	.00	3.64	0.78	0.72	1.513	3.574
	Mexican	35	0	3.4	0.58	0.71	2.24	6.556
	Chinese	42	.00	3.64	0.99	0.69	1.242	3.828
Parenting Self-Efficacy	Full Sample	85	1.03	6	5.09	0.85	-1.675	4.859
	Mexican	44	3.32	6	5.46	0.57	-1.657	3.44
	Chinese	41	1.03	6	4.70	0.92	-1.542	4.654
Authoritative Parenting	Full Sample	86	1.80	5.00	4.16	0.62	-1.279	1.907
	Mexican	43	2.87	4.93	4.31	0.52	-.996	.268
	Chinese	43	1.80	5.00	4.01	0.69	-1.281	1.799

Table 3

Zero-Order Correlations between Demographic Variables and Study Variables

	Culture (0 = MA; 1 = CA)	Child Age	Child Gender	Child's Generation Status	Mother's Age	Mother's Years in US	Mother's Education	Per Capita Income
Mother's Heritage Cultural Orientation	-.07	-.06	-.18	.20	-.08	.03	.23	.25*
Mother's American Cultural Orientation	-.20	.18	-.05	.29**	-.20	.32**	.26*	.34**
Parental Distress	.16	-.14	-.03	-.10	.03	-.03	.01	-.03
P-C Dysfunctional Interaction	.29**	-.10	-.06	-.11	.17	-.11	-.31**	-.12
Parenting Self-Efficacy	-.45***	.08	-.14	.30**	-.05	.26*	.09	.14
Authoritative Parenting	-.24*	.09	-.06	.18	-.06	.22*	.18	.18
Authoritarian Parenting	.06	-.09	07	-.04	.03	-.03	-.21*	-.15
Emotional Symptoms	-.05	-.18	-.10	.07	-.15	-.09	-.16	-.25*
Externalizing Problems	-.11	-.01	-.11	.07	-.15	-.09	-.16	-.25*
Prosocial Behavior	-.20	.13	.05	.18	.04	.23*	.18	.22*

Notes. +p<.10. * p < .05. ** p < .01. *** p < .001.

Table 4

Zero-Order Correlations between Study Variables

	1	2	3	4	5	6	7	8	9	10
1.Mothers' Heritage Cultural Orientation	-	.20+	.06	-.09	.43***	.50***	.05	.02	-.06	.39***
2.Mother's American Cultural Orientation	-	-	.15	-.07	.32**	.40***	-.10	.003	-.14	.41***
3.Parental Distress	-	-	-	.57***	-.07	.12	.34***	.38***	.31**	.07
4.P-C Dysfunctional Interaction	-	-	-	-	-.29**	-.24*	.41***	.46***	.30**	-.24*
5.Parenting Self-Efficacy	-	-	-	-	-	.74***	.01	.04	-.21+	.69***
6.Authoritative Parenting	-	-	-	-	-	-	.05	-.04	-.28**	.71***
7.Authoritarian Parenting	-	-	-	-	-	-	-	.33**	.18+	.03
8.Emotional Symptoms	-	-	-	-	-	-	-	-	.33**	-.04
9.Externalizing Problems	-	-	-	-	-	-	-	-	-	-.22*
10.Prosocial Behavior	-	-	-	-	-	-	-	-	-	-

Notes. +p<.10. * p < .05. ** p < .01. *** p < .001.

Table 5

Regressions Predicting Parenting Self-Efficacy

Predictors	ΔR^2	B (SE)	β
Step 1	.27***		
Cultural Group		-.87 (.24)	-.51***
Child's Generation Status		.27 (.28)	.13
Mother's Years in the US		-.02 (.02)	-.12
Mother's Education		.03 (.02)	.13
Per Capita Income		.00006 (.00)	.21+
Step 2	.12**		
Cultural Group		-.79 (.22)	-.46***
Child's Generation Status		.09 (.27)	.04
Mother's Years in the US		-.02 (.02)	-.11
Mother's Education		.004 (.02)	.02
Per Capita Income		.00004 (.00)	.11
Mother's Heritage Cultural Orientation		.51 (.17)	.32**
Mother's American Cultural Orientation		.32 (.19)	.19*
Step 3	.05*		
Cultural Group		-.65 (.22)	-.38**
Child's Generation Status		.06 (.26)	.03
Mother's Years in the US		-.02 (.02)	-.11
Mother's Education		-.02 (.03)	-.07
Per Capita Income		.00001 (.00)	.05
Mother's Heritage Culture Orientation		.47 (.17)	.30**
Mother's American Orientation		.43 (.19)	.25**
Parental Distress		-.06 (14)	-.05
Parent-Child Dysfunctional Interaction		-.36 (.18)	-.24*
Total R^2	.45		
N	78		

Notes. +p<.10. * p < .05. ** p < .01. *** p < .001.

Table 6

Regressions Predicting Parenting Styles

	Authoritative Parenting			Authoritarian Parenting		
Predictors	ΔR^2	B (SE)	β	ΔR^2	B (SE)	β
Step 1	.13+			.05		
Cultural Group		-.26 (.19)	-.21		-.09 (.11)	-.12
Child's Generation Status		.05 (.22)	.04		.07 (.13)	.07
Mother's Years in the US		.01 (.02)	.06		-.01 (.01)	-.21
Mother's Education		.04 (.02)	.21+		-.01 (.01)	-.14
Per Capita Income		.0003 (.00)	.15		-.00003 (.00)	-.03
Step 2	.25***			.01		
Cultural Group		-.18 (.17)	-.14		-.08 (.12)	-.11
Child's Generation Status		-.14 (.20)	-.09		.05 (.14)	.06
Mother's Years in the US		.01 (.01)	.08		-.01 (.01)	-.21
Mother's Education		.01 (.02)	.08		-.02 (.01)	-.16
Per Capita Income		-.00005 (.00)	.02		-.00006 (.00)	-.05
Mother's Heritage Orientation		.54 (.13)	.46***		.04 (.09)	.07
Mother's American Orientation		.33 (.14)	.26*		.04 (.10)	.05
Step 3	.07*			.02		
Cultural Group		-.06 (.17)	-.05		-.11 (.12)	-.16
Child's Generation Status		-.18 (.19)	-.12		.06 (.14)	.07
Mother's Years in the US		.01 (.01)	.11		-.01 (.01)	-.21
Mother's Education		-.01 (.02)	-.07		-.01 (.01)	-.12
Per Capita Income		-.0001 (.00)	-.07		-.00003 (.00)	-.02
Mother's Heritage Orientation		.51 (.12)	.43***		.05 (.09)	.08
Mother's American Orientation		.33 (.14)	.26*		.01 (.11)	.01
Parental Distress		.14 (.10)	.16		.03 (.07)	.05
Parent-Child Dysfunctional Interaction		-.36 (.13)	-.34**		.08 (.10)	.13
Step 4	.20***			.00		
Cultural Group		.22 (.14)	.18		-.12 (.13)	-.17
Child's Generation Status		-.21 (.16)	-.13		.06 (.14)	.07
Mother's Years in the US		.02 (.01)	.18		-.01 (.01)	-.21
Mother's Education		-.01 (.02)	-.03		-.01 (.01)	-.12
Per Capita Income		-.0002 (.00)	-.10		-.0000 (.00)	-.02
Mother's Heritage Orientation		.30 (.11)	.26**		.06 (.10)	.09
Mother's American Orientation		.14 (.12)	.11		.01(.11)	.02
Parental Distress		.17 (.08)	.19*		.03 (.07)	.05
Parent-Child Dysfunctional Interaction		-.21 (.11)	-.19+		.08 (.10)	.12
Parenting Self-Efficacy		.44 (.07)	.59***		-.01 (.07)	-.03
Total R^2	.64			.08		
N	78			78		

Notes. +p<.10. * p < .05. ** p < .01. *** p < .001.

Table 7

Regressions Predicting Child Prosocial Skills

Predictor	R^2	B (SE)	β
Step 1	.12		
Cultural Group		-.68 (.50)	-.21
Child's Generation Status		.10 (.57)	.03
Mother's Years in the US		.02 (.04)	.06
Mother's Education		.07 (.05)	.17
Per Capita Income		.00 (.00)	.21
Step 2	.13**		
Cultural Group		-.54 (.47)	-.17
Child's Generation Status		-.19 (.56)	-.05
Mother's Years in the US		.01 (.04)	.04
Mother's Education		.02 (.05)	.05
Per Capita Income		.000 (.00)	.10
Mother's Heritage Cultural Orientation		.90 (.36)	.29*
Mother's American Cultural Orientation		.78 (.39)	.24+
Step 3	.08*		
Cultural Group		-.20 (.47)	-.06
Child's Generation Status		-.31 (.54)	-.08
Mother's Years in the US		.02 (.04)	.07
Mother's Education		-.03 (.05)	-.08
Per Capita Income		.000 (.00)	.02
Mother's Heritage Cultural Orientation		.81 (.35)	.27*
Mother's American Cultural Orientation		.79 (.40)	.24+
Parental Distress		.37 (.28)	.16
Parent-Child Dysfunctional Interaction		-1.05 (.37)	-.37**
Step 4	.22***		
Cultural Group		.58 (.41)	.18
Child's Generation Status		-.38 (.45)	-.10
Mother's Years in the US		.04 (.03)	.14
Mother's Education		-.02 (.04)	-.04
Per Capita Income		.000 (.00)	-.01
Mother's Heritage Cultural Orientation		.25 (.31)	.08
Mother's American Cultural Orientation		.28 (.35)	.08
Parental Distress		.44 (.23)	.19+
Parent-Child Dysfunctional Interaction		-.63 (.32)	-.22+
Parenting Self-Efficacy		1.19 (.21)	.62***
Step 5	.04+		
Cultural Group		.39 (.41)	.12
Child's Generation Status		-.21 (.44)	-.05
Mother's Years in the US		.02 (.03)	.09
Mother's Education		-.01 (.04)	-.03
Per Capita Income		.000 (.00)	.03
Mother's Heritage Cultural Orientation		-.02 (.31)	-.01
Mother's American Cultural Orientation		.16 (.34)	.05
Parental Distress		.30 (.23)	.13
Parent-Child Dysfunctional Interaction		-.45 (.32)	-.16
Parenting Self-Efficacy		.81 (.26)	.43**
Authoritative Parenting		.86 (.35)	.33*
Authoritarian Parenting		.05 (.38)	.01
Total R^2	.59		
N	78		

Notes. +p<.10. * p < .05. ** p < .01. *** p < .001.

Table 8

Regressions Predicting Child Externalizing Problems

Predictor	ΔR^2	B (SE)	β
Step 1	.18*		
Cultural Group		-1.53 (.82)	-.27+
Child's Generation Status		1.40 (.95)	.21
Mother's Years in the US		-.15 (.07)	-.34*
Mother's Education		-.17 (.08)	-.23*
Per Capita Income		-.000 (.00)	-.05
Step 2	.02		
Cultural Group		-1.59 (.83)	-.29+
Child's Generation Status		1.65 (1.00)	.24
Mother's Years in the US		-.18 (.07)	-.41*
Mother's Education		-.19 (.09)	-.25*
Per Capita Income		-.000 (.00)	-.06
Mother's Heritage Cultural Orientation		-.36 (.64)	-.07
Mother's American Cultural Orientation		.70 (.70)	.14
Step 3	.06+		
Cultural Group		-1.95 (.85)	-.35*
Child's Generation Status		1.69 (.98)	.25+
Mother's Years in the US		-.18 (.07)	-.39*
Mother's Education		-.15 (.09)	-.20
Per Capita Income		-.000 (.00)	-.01
Mother's Heritage Cultural Orientation		-.29 (.63)	-.06
Mother's American Cultural Orientation		.29 (.74)	.05
Parental Distress		.62 (.51)	.16
Parent-Child Dysfunctional Interaction		.74 (.67)	.15
Step 4	.07*		
Cultural Group		-2.69 (.87)	-.48**
Child's Generation Status		1.76 (.95)	.26+
Mother's Years in the US		-.19 (.07)	-.43**
Mother's Education		-.17 (.09)	-.22+
Per Capita Income		.000 (.00)	.01
Mother's Heritage Cultural Orientation		.25 (.65)	.05
Mother's American Cultural Orientation		.78 (.73)	.14
Parental Distress		.55 (.49)	.14
Parent-Child Dysfunctional Interaction		.33 (.67)	.07
Parenting Self-Efficacy		-1.14 (.45)	-.35**
Step 5	.04		
Cultural Group		-2.49 (.88)	-.45**
Child's Generation Status		1.53 (.95)	.23
Mother's Years in the US		-.18 (.07)	-.40*
Mother's Education		-.18 (.09)	-.03*
Per Capita Income		-.000 (.00)	-.03
Mother's Heritage Cultural Orientation		.68 (.68)	.13
Mother's American Cultural Orientation		.97 (.73)	.17
Parental Distress		.7 8(.50)	.20
Parent-Child Dysfunctional Interaction		.12 (.68)	.02
Parenting Self-Efficacy		-.59 (.55)	-.18
Authoritative Parenting		-1.29 (.75)	-.29+
Authoritarian Parenting		-.69 (.82)	-.08
Total R^2	.35		
N	78		

Notes. +p<.10. * p < .05. ** p < .01. *** p < .001.

Table 9

Regressions Predicting Child Emotional Problems

Predictor	R^2	B (SE)	β
Step 1	.09		
Cultural Group		-.41 (.47)	-.15
Child's Generation Status		.53 (.54)	.14
Mother's Years in the US		-.06 (.04)	-.24
Mother's Education		-.06 (.05)	-.15
Per Capita Income		-.000 (.00)	-.07
Step 2	.06		
Cultural Group		-.48 (.46)	-.16
Child's Generation Status		.72 (.56)	.20
Mother's Years in the US		-.08 (.05)	-.35*
Mother's Education		-.08 (.05)	-.20
Per Capita Income		-.000 (.00)	-.11
Mother's Heritage Cultural Orientation		-.21 (.36)	-.08
Mother's American Cultural Orientation		.82 (.39)	.27*
Step 3	.04		
Cultural Group		-.63 (.48)	-.21
Child's Generation Status		.73 (.55)	.20
Mother's Years in the US		-.08 (.04)	-.34*
Mother's Education		-.06 (.05)	-.16
Per Capita Income		-.000 (.00)	-.07
Mother's Heritage Cultural Orientation		-.18 (.36)	-.06
Mother's American Cultural Orientation		.58 (.41)	.19
Parental Distress		.31 (.29)	.15
Parent-Child Dysfunctional Interaction		.30 (.38)	.12
Step 4	.00		
Cultural Group		-.61 (.51)	-.20
Child's Generation Status		.72 (.56)	.20
Mother's Years in the US		-.08 (.04)	-.34*
Mother's Education		--.06 (.05)	-.16
Per Capita Income		-.000 (.00)	-.07
Mother's Heritage Cultural Orientation		-.20 (.38)	-.07
Mother's American Cultural Orientation		.56 (.43)	.18
Parental Distress		.32 (.39)	.12
Parent-Child Dysfunctional Interaction		.31 (.39)	.12
Parenting Self-Efficacy		.04 (.27)	.02
Step 5	.02		
Cultural Group		-.48 (.53)	-.16
Child's Generation Status		.61 (.57)	.17
Mother's Years in the US		-.07 (.04)	-.29+
Mother's Education		-.06 (.05)	-.16
Per Capita Income		-.000 (.00)	-.10
Mother's Heritage Cultural Orientation		-.04 (.41)	-.01
Mother's American Cultural Orientation		.63 (.44)	.21
Parental Distress		.40 (.30)	.19
Parent-Child Dysfunctional Interaction		.19 (.41)	.08
Parenting Self-Efficacy		.27 (.33)	.16
Authoritative Parenting		-.54 (.45)	-.23
Authoritarian Parenting		.09 (.49)	.02
Total R^2	.21		
N	78		

Notes. +p<.10. * p < .05. ** p < .01. *** p < .001.