PARENTING STYLES IN IMMIGRANT, MULTIGENERATIONAL CHINESE CANADIAN FAMILIES

CYNTHIA SING-YU SHIH

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Abstract

Chinese Canadian (CC) families are increasingly living in multi-generational households, often with grandparents who assist in child caregiving. CC families experience multiple changes both prior to and after resettlement in Canada that can shape their parenting styles and beliefs. Fifty-seven CC and European Canadian (EC) (n = 27) mother-child dyads participated in a play interaction, child cognitive assessment, parent interview, and parent questionnaires to examine parenting styles, child outcomes, maternal sensitivity, and parenting stress. Parenting in CC families, when framed within a bioecological model that accounts for the micro-systemic, cultural, and sociopolitical influences, was more similar to parenting in EC families and incorporated more permissive styles of parenting than previously believed. CC mothers attributed indulgent parenting styles in part to newer preferred parenting practices in China, as well as their desire to parent differently from their own upbringing. So-called Chinese parenting style was associated with negative child outcomes in EC and CC families. There were significant relationships between parenting stress and all reported parenting styles. CC mothers described the cultural continuities and discontinuities that contributed to the multi-generational family dynamics within their homes, including their desire to raise their Canadian-born children with Canadian parenting approaches. To support the continuity of Chinese cultural traditions and practices, many CC parents sought the involvement of co-residing grandparents in child rearing. Implications for clinical parenting interventions targeted to CC families, and immigration policies used by multi-generational immigrant families are discussed. Future research on the relationship between parenting stress and parenting styles, as well as the measurement of maternal sensitivity in CC families is recommended.

Keywords: parenting style, immigrant, grandparenting, Chinese Canadian

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Parenting Styles in Immigrant, Multigenerational Chinese Canadian Families

Canada has a longstanding identification with multiculturalism and a strong, growing immigrant community. It is not surprising then that families in Canada are ever more diverse (Bohr, 2010; Parke, 2013). Remarkably, there continues to be scant culturally specific research available to inform educational, health, and mental health programs and policies to reflect this increasing diversity. The present study addresses this gap by focusing on the unique characteristics and needs of Chinese Canadian immigrant families from mainland China.

As Canada's second largest group of immigrants, the Chinese Canadian community contributes significantly to this country's multicultural mosaic (Statistics Canada, 2011). As the Chinese Canadian (CC) population has increased over the years, so has the diversity within this community. Sociological research has begun differentiating between the different subgroups of Chinese Canadians (e.g., by generational status, country of origin, province of origin, urban vs. rural). Distinguishing and gaining a better understanding of these different groups within the Chinese Canadian diaspora is especially critical when considering the shifting immigration trends. Between 1991 and 1995, the number of immigrants from Hong Kong and Mainland China were relatively similar (69,635 and 66,570, respectively). However, between 2001 and 2006, the number of immigrants from Mainland China became substantially larger (155,105 from China and 7,430 from Hong Kong) (Statistics Canada, 2009). These population changes highlight the importance of understanding the potentially different sociohistorical and cultural contexts of immigrant families in Chinese Canadian communities, and how they may manifest in their parenting and child rearing approaches. The current study follows this trend by focusing on immigrants from Mainland China and their specific bioecological surroundings. Chinese Canadian families may be best studied and understood using multisystemic approaches that

recognize the individual, group, environmental and socio-historical contexts that influence their parenting decisions and child rearing (Bronfenbrenner, 2005; Tudge et al., 2016). Indeed, Chinese Canadian families typically function within multiple nested systems, including the historical changes in China's political and economic systems, the intersecting Canadian and Chinese cultural systems, and the numerous, often multigenerational, family subsystems.

Grounded in the bioecological model (Bronfenbrenner, 1999; 2005), this study explores parenting in Chinese Canadian families who are experiencing changes in family makeup and acculturative negotiations, while drastic economic and social changes are also happening in China. More specifically, this study examined the parenting styles and maternal sensitivity (microsystem) of Chinese Canadian and European Canadian caregivers, and their influences on child behaviour. Within Chinese Canadian families, the relationships among the parenting styles of multiple co-residing caregivers (Baumrind, 1991; Wu et al., 2002) are examined to better understand how extended family subsystems respond and manage multi-generational cultural influences on child rearing. Further, the macrosystemic cultural and acculturative factors are considered.

Bronfenbrenner's Bioecological Model

Bronfenbrenner's (1979; 1994; 1999) seminal bioecological model of development acknowledges and emphasizes the contextual factors of an individual's growth and development. The model importantly highlights the relationships among all contexts of a developing child's experience, which are especially crucial when studying non-dominant/non-Western cultures (Bronfenbrenner, 1970). The bioecological model purports nested systems beginning with the child and extending out to chronosystems by way of microsystems, mesosystems, exosystems,

macrosystems, and chronosystems (Bronfenbrenner, 1994; 1999; Bronfenbrenner & Morris, 1998).

The microsystems include the most immediate, face-to-face relationships in a child's life, such as the parents, daycare providers, peers, and teachers. This system is also where critical "proximal processes" take place in a child's life, such as caregiver-child interactions (Tudge et al. 2016). These important processes are the "enduring forms of interactions" that help shape the developing child (Bronfenbrenner, 1999, p. 5). In light of this description, co-residing grandparents, commonly found in Chinese families, could be deemed an important microsystem within a child's life. The mesosystem represents the interactions between two or more microsystems, such as parents meeting a teacher, a child's play date with peers, or even parents sharing parental duties with co-residing grandparents. The exosystems are the indirect influences on the child's life, including a parent's occupation and the child's neighbourhood. It involves two or more settings where "at least one [setting] does not contain the developing person" (Bronfenbrenner, 1994, p. 40). The macrosystem reflects the larger sociocultural processes of a child's environment, or what Bronfenbrenner (1994) described as the "societal blueprint" (p. 40). The chronosystems capture the accumulated life experiences and changes of the child over time, and the social and historical paradigms that influence and shape how the other systems are manifested. The inclusion of the macrosystems and chronosystems is critically relevant in guiding this research study. CC parents immigrating from Mainland China have been embedded in specific cultural and sociopolitical contexts which are hypothesized to uniquely impact CC parenting , for example China's one-child policy.

The bioecological model's nested systems have also demonstrated strong applications in clinical settings. In fact, Bronfenbrenner's involvement in the Head Start program, which was a

transformational pioneering program that posited that healthy child development included addressing multiple systems within a child's environment in the United States in the 1970s, contributed to the foundational underpinnings of the bioecological model. The model clearly identifies, through the different nested systems, points of clinical intervention and how these interventions may impact other systems, and ultimately the child.

This study investigated the bioecological environment that results from the interaction of these systems and how this environment may affect Mainland Chinese Canadian children's developmental outcomes. Microsystems were explored through an examination of dyadic parent-child relationships, parenting style, and parental sensitivity. For this study, the mother was the parent of focus. Similar to many other cultures, mothers in Chinese cultures typically are the primary caregivers who assume most caregiving duties while fathers have less parental involvement (Chao & Kim, 2002; Jankowiak, 1992). The mesosystems examined here consisted of the processes and interactions between the child's immediate family (e.g., mother) and extended family (e.g., grandparents), and how multiple caregivers negotiate their parenting roles. Further, these interactions within the macrosystemic contexts of Chinese and Western beliefs about childrearing and parenting were explored. The macro-chronosystems are particularly topical for the generation of Chinese families exposed to China's one-child policy and the vast economic and cultural changes currently occurring in their country of origin.

Parenting Styles

Undoubtedly, parents have a significant influence on their children's development. In most cases, children spend most of their time, especially in infancy and toddlerhood, with their parents. As such, parents help "create their children psychologically as well as physically" by fostering cognitive, emotional, and social growth (Baumrind, 1967, p. 126). However, parents

differ in how they achieve their childrearing goals, resulting in different parenting styles. Parenting styles have been defined as the "emotional climate" in which children are reared (Darling & Steinberg, 1993), which highlights both the parenting practices and the affective environment within families. Baumrind (1991) first introduced typologies of parenting that were structured around two dimensions: an affect-focused and a structure- or control-focused dimension. Baumrind coined the now universally recognized *authoritative*, *authoritarian*, and *permissive* parenting styles to describe how parents attempt to socialize their children. These typologies were later re-conceptualized by Maccoby and Martin (1983) using the dimensions of control (or demandingness) and warmth (or responsiveness) (for a historical development of parenting styles, see Darling & Steinberg, 1993).

Authoritative parenting reflects the parenting of caregivers who exert appropriate parental control while simultaneously displaying warmth and responsiveness. These parents provide explanations and reason with their children. They establish appropriate boundaries and limits. *Authoritarian* parents display a high degree of control with their children with little warmth. This parenting style has previously been viewed as harsh or lacking sensitivity. In contrast, *permissive* parenting lacks adequate parental control. This style is characterized by parents who do not set appropriate limits and boundaries for their children but display warmth in their interactions with their child.

Empirical evidence has consistently found that authoritative parenting styles have been associated with positive indicators for children's development including academic achievement (Dornbusch, Ritter, Leiderman, Roberts, & Fraleigh, 1987; Spera, 2005; Steinberg, Lamborn, Dornbusch, & Darling, 1992), lower substance use (Baumrind, 1991; Weiss & Schwarz, 1996), fewer internalizing and externalizing problems (Aunola & Nurmi, 2005; Miller, Cowan, Cowan,

Hetherington, & Clingempeel, 1993), prosocial behaviours (Dekovic & Janssens, 1992), attachment security (Karavasilis, Doyle, & Markiewicz, 2003), and children's cognitive development (Pratt, Green, MacVicar, 1992). The strength of authoritative parenting lies in its balance of appropriate control with sensitive emotional understanding. It has been argued that authoritarian parenting overemphasizes control over the child, and some have characterized it as a harsher and dictatorial parenting approach. For permissive parents, the advantages of providing warmth and emotional support are overshadowed by the lack of limits and parental authority that many children require for the development of self-regulation skills and appropriate behavioural adjustment.

Unsurprisingly, given the research evidence, authoritative parenting has been touted as the optimal parenting style. Yet, as parenting style research has expanded to include cross-cultural and ethnically diverse samples, some researchers (e.g., Chao, 1994) have suggested that authoritative parenting may not be as critical to child development in some non-Western cultures, for example Chinese cultures, as it is in Western cultures. Researchers have highlighted that Baumrind's three parenting styles may not fully capture parenting in non-Western cultures (Chao, 1994; 2001; Dornbusch et al., 1987; Domenech Rodríguez, Donovick, & Crowley, 2009; Steinberg et al., 1992; Zhang, Wei, Ji, Chen, & Deater-Deckard, 2017).

For example, authoritative parenting in African-American families may not contribute to academic achievement as strongly as in Caucasian-American families (Steinberg et al., 1992). Physical discipline and more hostile parenting approaches, associated with authoritarian parenting styles, have not been associated with negative child outcomes in African-American families (Baumrind, 1972; Deater-Deckard, Dodge, Bates, & Pettit, 1996). However, when sociodemographic factors such as maternal education and income are considered, African-

American parents' endorsement of authoritative parenting styles has been associated with fewer child behaviour problems just as in Caucasian-American families (Bluestone & Tamis-LeMonda, 1999; Kelley, Power, & Wimbush, 1992; Querido, Warner, & Eyberg, 2002). In Latino families, Domenech Rodríguez and colleagues have found that Baumrind's parenting style typologies do not fully reflect the parenting approaches used (Domenech Rodríguez et al., 2009). These authors noted that a "protective" parenting style, associated with high warmth, high demandingness, and low autonomy granting, was more common in Latino families than Baumrind's parenting styles.

Parenting Styles in Chinese Families

In the popular press, Chinese parents, especially mothers, have at times been stereotyped as cold, dictatorial, and strict "tiger mothers" (e.g., Chua, 2011). Popular, anecdotal accounts are often exaggerated, but they may highlight some important differences between Chinese and Western parents. These differences are perhaps unsurprising when macrosystemic cultural factors are considered. Namely, Chinese parents are driven by a collectivist cultural ideology which values interdependence and strong relationships, whereas Western/European-Canadian parents are motivated by an individualist cultural ideology which promotes independence and autonomy (Triandis, 2001). These differing cultural values in turn influence parents' socialization goals, even if the parenting behaviours appear similar. This difference is particularly evident when examining parenting behaviours traditionally classified as authoritarian parenting. As evidenced by "tiger mom" characterizations, Western interpretations of Chinese parenting practices have often incorrectly emphasized the hostile, cold and authoritarian manner of Chinese parenting (Chao & Tseng, 2002). From a Chinese cultural framework, parenting practices such as parental authority, directiveness, and control reflect parents' love for their

children and wanting to help their children become better people (Chao & Tseng, 2002; Wu et al., 2002). Unlike Western parenting traditions, strict parental authority is a form of loving, responsive caregiving in Chinese cultures. For Chinese parents, parenting is motivated by relational goals, in contrast to the individualistic goals that typically motivate European American/Canadian mothers.

The philosophical influence of Confucianism also pervades Chinese cultural conceptions of children. In Chinese tradition, Confucius is known as the "great teacher". His teachings and philosophies influence many of the values and beliefs that Chinese parents hold (Chao, 1994; Chao & Tseng, 2002; Huang & Gove, 2015). Self-improvement is emphasized and parents are expected to help "cultivate" and shape the child's development and moral character (Chao & Tseng, 2002, p. 80). Confucian teaching also promotes filial piety, which encourages family interdependence through a deep respect of parents and elders. Children are expected to listen to and obey their elders, bring honour and pride to the family, and provide and care for family members (Chao & Tseng, 2002). This theory of the child is critical in understanding how Chinese parents may view their role as caregivers. They believe that they should play an active role in teaching their child and that their child will adhere to their instructions.

In light of these cultural contexts, there have been mixed findings on the endorsement of Baumrind's parenting styles and their associated impact on child outcomes in Chinese families. Studies with Chinese parents who reside in Asian countries have reported that these parents tend to endorse more authoritarian parenting styles than their Western counterparts (Chao, 2000; Dornbusch et al., 1987; Liu & Guo, 2010; Wu et al., 2002; Wu & Chao, 2005). Yet, the associations between authoritarian parenting styles and child outcomes appear to differ between groups. Despite more strongly favouring authoritarian parenting, Chinese parents in some

studies did not report poor child academic performance, unlike their European American counterparts where there are demonstrated negative associations between authoritarian parenting and child academic performance (Dornbusch et al., 1987; Leung, Lam & Lam, 1998). In contrast, Chen, Dong, and Zhou (1997) reported that authoritarian parenting styles in Chinese parents from Beijing were associated with negative child outcomes (i.e., social functioning and school performance), consistent with research with European American parents. Chao (2001) argued that the differing child outcomes of Chinese parents' use of authoritarian parenting styles was attributed to the younger age of the children and the potential differences between parenting in differing geographical regions within China (i.e., Hong Kong parents in Leung et al.'s study (1998) vs. Beijing parents in Chen et al.'s study (1997)) may have contributed to this inconsistent finding. It is possible that Chinese parenting styles may differ depending on children's developmental stage, geographic location, or culture. In addition to the mixed findings related to authoritarian parenting and child outcomes, Tam and Lam (2003) reported that authoritative parenting was more prominent than authoritarian parenting in a sample of Hong Kong dyads. The findings of Chen et al. (1997) and Tam & Lam's (2003) studies of the positive outcomes and growing endorsement of authoritative parenting may also suggest shifting attitudes when it comes to parenting styles in China.

Beyond Baumrind's three parenting style typologies, there is growing evidence supporting a unique Chinese parenting style which incorporates more culturally-specific parenting beliefs (Chao, 1994; 2001; Chen-Bouck, Duan, & Patterson, 2017; Kim, Wang, Orozco-Lapray, Shen, & Murtuza, 2013). The *training* concept was introduced by Chao (1994) to distinguish Chinese parenting approaches from authoritarian parenting. This *training* concept was derived from the Chinese word, *jiaoxun* (教訓), which refers to qualities of "hard work, self-

discipline, and obedience" (Chao, 2001, p. 1832). The parents' role is to instill these qualities in their children through significant involvement and close monitoring by controlling their exposure to positive and negative experiences (Chao, 1994). This heightened supervision is rooted in another Chinese concept of *guan* (關), which directly translates to "to govern", but also means "to care for" and "to love" (Chao, 1994). Although these parenting behaviours have negative connotations of control and intrusiveness in Western contexts, *training* and *guan* concepts highlight that these practices are reflections of care and devotion in Chinese families (Chao, 1994; Cheung & Pomerantz, 2011).

Wu and colleagues (Wu et al., 2002) further elaborated on the Chinese training style suggested by Chao (1994; 2001) by proposing a distinct Chinese parenting style in addition to the three Baumrind styles. They designed the *Parenting Style and Dimensions Questionnaire* (PSDQ; Wu et al., 2002) to assess the dimensions of encouragement of modesty, protection, directiveness, shaming/love withdrawal, and maternal involvement inherent in the Chinese parenting style. These researchers found evidence of this Chinese parenting style for Chinese families (Wu et al., 2002). The proposed Chinese parenting style in Chinese families has also been supported by other research studies (Shih & Bohr, 2013).

In the current study, the term "Chinese parenting style" is used to reflect a specific parenting style, but importantly does not directly assume that all Chinese parents strongly endorse these parenting practices. Furthermore, although Chinese parenting style is expected to reflect Chinese cultural values in parenting, there is evidence that European Canadian mothers also endorse aspects of Chinese parenting style (Wu et al., 2002; Su & Hynie, 2010).

Parenting Style and Parental (Maternal) Sensitivity

Unlike parenting style, maternal sensitivity has been shown to predict positive child outcomes across cultures (van Ijzendoorn & Sagi-Schwartz, 2008). Thus, parenting styles that are most associated with high maternal sensitivity may also result in positive child outcomes. The addition of maternal sensitivity in understanding the impact of parenting styles on child outcomes may offer insight into the processes behind the differing results cross-culturally in the parenting styles literature. Perhaps the positive association between Chinese Canadian (CC) mothers' authoritarian parenting styles and positive child outcomes in some studies (e.g., Dornbusch et al., 1987; Leung et al., 1998) is related to high levels of maternal sensitivity. Maternal sensitivity may capture the caregiver responsiveness and dyadic attunement within seemingly authoritarian parenting interactions and create a more healthy and positive "emotional climate" (Darling & Steinberg, 1993).

Maternal sensitivity has been largely studied with infant and toddler populations, while parenting style research has often focused on latency-aged and adolescent children. However, some of the dimensions of maternal sensitivity, for example the focus on responsiveness, contingency, and warmth, closely correspond to the parental warmth that forms the heart of the parenting styles literature. The characteristics of the optimal authoritative parenting style align fittingly with the characteristics of a secure attachment style, as featured in infant attachment research. Researchers in both areas highlight the importance of sensitive and responsive care that is coupled with adequate levels of parental protection, monitoring, and limit-setting. These qualities reflect healthy parent-child relationships, and consequently are expected to lead to positive child outcomes (Thomson, 2008).

Further to the overlap between maternal sensitivity and parenting styles, authoritative parenting has been positively associated with secure parent-child attachments in China and Canada (Chen et al., 2000; Karavasilis et al., 2003). Yet, as described previously, despite the benefits of authoritative parenting shown for some Chinese families, other studies with Chinese families have found that positive child outcomes are associated with authoritarian parenting. To explain these incongruent findings, and to address parenting styles' "processes of influence" (i.e., specific processes that mediate or moderate the relationship between parenting styles and child outcomes), as recommended by Darling and Steinberg (1993), it is perhaps more pertinent to explore how parental sensitivity complements parenting style, and how this possible moderating mechanism leads to changes in child development. It may be in part the mother's sensitivity to the child (e.g., responsiveness, dyadic attunement, reciprocity, contingency; Shin, Park, Ryu, & Seomun, 2008) that contributes to the warm emotional climate and environment so foundational to the success of authoritative parenting.

To my knowledge, there are currently no studies that have examined the relationship between parenting styles and maternal sensitivity. Some studies have used measures of parental sensitivity to operationalize parenting styles or aspects of parenting styles (Rhee, Lumeng, Appuliese, Kaciroti, & Bradley, 2006; Stright, Gallagher, & Kelley, 2008). However, Karavasilis and colleagues (2003) have explored the relationship between parenting styles and attachment security, which has been closely associated with maternal sensitivity (De Wolff & van IJzendoorn, 1997). They reported that there were positive associations between authoritative parenting styles and secure attachment, and negative associations between authoritarian or negligent parenting styles and insecure attachment styles. The authors suggested that their results may provide insight into possible relationships between authoritative and authoritarian

parenting styles and sensitivity (Karavasilis et al., 2003). As well, Chen and colleagues (2000) have investigated how parenting style attitudes impact parent-child interactions and relationships in families with two-year-old children and their mothers. They found associations between mother-child attachment relationships and maternal authoritarian and authoritative parenting attitudes, suggesting that these parenting style attitudes may uniquely contribute to the quality of the dyadic relationship beyond the influence of observed parental strategies (e.g., positive comments, information exchanges, explanations, reprimands) in a dyadic interaction. These authors suggested that aspects of the dyadic attachment relationship, such as a parent's sensitivity to her or his child, may capture a more "subtle" influence of parenting style than specific parental strategies (Chen et al., 2000, p. 125). Indeed, Darling and Steinberg (1993) have also argued that parenting styles reflect not just parenting practices, but also incorporate parents' emotional attitudes communicated to their children. They provide examples of how parents communicate their emotional attitudes, including "tone of voice", "body language", and "inattention" (Darling & Steinberg, 1993, p. 493). Unsurprisingly, these examples are also important aspects of maternal sensitivity.

Further, the incorporation of maternal sensitivity in parenting styles research provides methodological advantages. The bulk of parenting styles research relies on self-report questionnaires. Many have suggested the need for multi-method approaches, including observational measures, to more objectively examine parenting styles (Dornbusch et al., 1987). The maternal sensitivity dimension is ideal in addressing these concerns as it can be measured through observational methods. Maternal sensitivity observations provide a good complement to the self-report measures often employed in parenting styles research.

Despite the similarities and overlap between parenting styles and parental sensitivity, there is limited research examining this relationship and how these two factors function within parenting and child development.

The current study aimed to join research on maternal sensitivity and parenting styles by examining the role of maternal sensitivity in authoritarian parenting in infants and toddlers, and examining how maternal sensitivity moderates the relationship of this type of parenting with child outcomes.

Grandparental Contributions to Childrearing in Chinese Culture

Grandparents have generally played an important role in childrearing in the Chinese culture. In light of the booming economic industries in China, the practice of grandparental caregiving has recently become even more crucial for working parents who may need to live away from home for extended periods of time. In a recent study in a large Chinese city, 45% of families had grandparents involved in child care and 40% of those grandparents (i.e. about 1 in 6 altogether) co-resided in the home (Goh & Kuczynski, 2010).

The cultural practice of multigenerational homes that is so common in China may also be growing within Chinese Canadian communities (Bohr, 2010). In 2016 in Canada, multigenerational homes were the fastest growing type of household, accounting for 2.9% of the population (403,810) (Statistics Canada, 2017). Based on the National Household Survey completed in 2011, 4.8% of children 14 years and under lived with at least one grandparent, which is 3.3% more than in 2001 (Statistics Canada, 2015). Further, 8.4% of immigrants aged 45 years or older were grandparents co-residing with their grandchildren compared to 2.5% of their Canadian-born counterparts (Milan, Laflamme, & Wong, 2015). Asian immigrants settling

in Canada between 1986 and 1996 accounted for 75% of heads of household in multigenerational homes (Che-Alford & Hamm, 1999).

While the practice of having grandparents play the role of child minders is often described as a financial necessity for working Chinese families, caregivers also frequently report additional benefits of multigenerational arrangements. Consistent with the cultural importance of family interdependence, families value the opportunity for intergenerational bonding and the sharing of Chinese culture, traditions, and values (Bohr & Tse, 2009; Goh & Kuczynski, 2010; Shih & Bohr, 2013; Yoon, 2005). Parents also enjoy the instrumental and functional supports (e.g., household chores, cooking meals, cleaning, and babysitting) that grandparents contribute (Goh & Kuczynski, 2010; Shih & Bohr, 2013).

Although co-residing grandparents are common in Chinese culture, this practice does not preclude families from experiencing caregiver conflicts and challenging family dynamics. Given research highlighting the acculturative gaps between parents and their younger children which can lead to family conflicts (Bornstein & Bohr, 2011; Costigan & Dokis, 2006; Farver, Narang, & Bhadha, 2002; Lim, Yeh, Liang, Lau, & McCabe, 2009), it is likely that these gaps between parents and grandparents may lead to challenges in sharing parenting responsibilities. In their attempt to maintain a harmonious balance within the family while also working towards the child's socialization goals, caregivers (parents) may try to adapt their parenting styles in relation to the other caregivers' (grandparents') styles. For example, if a grandparent employs a permissive parenting style, it may threaten a parent's socialization goal of having her child learn to tolerate difficulty. It may also reflect power struggles between the multiple caregivers regarding who has the authority to make parenting decisions. The parent may overcompensate grandparenting that is perceived to be indulgent by calibrating her parenting to be more firm and

authoritarian. Thus, it is possible that a parent who may typically be more authoritative may change her parenting to be stricter and controlling when faced with the older caregiver's perceived indulgence. The transactional nature of the latter example highlights the potentially fluid dynamics of family life and how minor adjustments at one of the system's levels (e.g. the family microsystem) may have potentially profound influences on other systems (the mesosystem involving parents and grandparents) and on child and family functioning generally (Bronfenbrenner & Morris, 1998). The dynamic of parents calibrating their parenting styles in response to grandparents' parenting styles appears to be more pronounced in Chinese than in European families. In a study with Caucasian-American families, researchers found evidence for an intergenerational continuity of parenting styles, suggesting that European Canadian parents may be more likely to adopt parenting styles which are similar to how they themselves were parented as children (Scaramella & Conger, 2003).

The current study explored the multi-systemic dynamics of parenting styles, as they are influenced by co-residing grandparental involvement in caregiving in an immigrant Chinese Canadian context.

Parenting Style, Acculturation and Stress

Studies have shown inconsistent findings about the effect of acculturation on Chinese Canadian parenting styles. Chinese immigrant families with increased acculturation to North American culture appear to endorse more authoritative parenting styles (increased warmth and less controlling behaviour), similar to European Canadian families (Chang, Lansford, Schwartz & Farver, 2004; Kelley & Tseng, 1992; Rosenthal & Feldman, 1990). Yet, despite this acculturative effect, Chinese immigrant parents also continue to retain traditional Chinese parenting approaches (Chao, 2000; Kelley & Tseng, 1992; Rosenthal & Feldman, 1990)

Acculturation is not always a smooth transition and may subsequently make parenting more challenging for immigrant families. For many new immigrants, migration and re-settlement in a new country can be stressful. This stress can be magnified by language barriers, financial stress, job insecurity, and lack of social support networks (Falicov, 2007; Miller et al., 2006; Simich, Hamilton, & Baya, 2006). Many have characterized these difficulties as acculturative stress, or the stress associated with moving to a new country and culture. The typical challenges of caregiving coupled with the multiple acculturative stressors likely add to the overall life stress of immigrant parents and may potentially strain their abilities to parent optimally.

Su and Hynie (2010) recognized the significance of stress in immigrant parents' lives. They reported that parenting stress mediated the differences in authoritarian parenting for Chinese Canadian, European Canadian and Mainland Chinese families. However, parenting stress, which relates specifically to the parenting role, is but one aspect of the spectrum of stresses experienced by families, which includes life stress such as financial hardship, stress related to employment, and acculturative stress generally. General life stress experienced by parents may be more removed from the parents' experiences with their child, making it possible to respond more sensitively to the child than when the child itself is the object or cause of the stress experienced by the caregiver (parenting stress specifically). Within a bioecological model, parenting stress and style would be conceptualized as belonging in the microsystem (i.e. parent-child dyad), while general life stress may be best situated in the exosystem. The nested model posits that the systems closer to the child generally have a more direct influence on the child (Bronfenbrenner, 1994; 1999). Consistent with this model, parenting stress, which is more

intimately related to a child's experience, may moderate the relation between general life stress and parenting styles.

The current study aims to build on Su and Hynie's research (2010) by examining how exosystem- and microsystem-related stresses may impact the parenting styles featured within the mother-child microsystem.

Parenting Style and Macrosystemic Factors (Social, Political, and Historical) in China

Most research pertaining to immigrant families has focused on the changes that families experience after resettlement in a new country (i.e., acculturation), but less consideration has been given to some of the shifts that may occur before resettlement. In addition, previous researchers have tended to describe Chinese parents as a homogenous group, ignoring the differing macro- and chrono-systemic factors that have influenced families from Hong Kong, Taiwan, Mainland China, and other countries where Chinese live, such as Canada (Chuang, Glozman, Green & Rasmi, 2018). Chao (2001) has even hypothesized that these geographical and cultural differences between Chinese parent groups may partially explain the mixed findings in parenting styles on child outcomes in Chinese families. The bioecological model further supports this hypothesis, stressing the importance of understanding families' sociohistoral contexts and how they influence parents' parenting styles.

Since China's Communist Party came to power in 1949, China has experienced significant economic, political, and social changes (Lewis & Litai, 2003; Zhang, 2004). The country's rapid industrial modernization and development has resulted in China becoming an important player within the world's economy. Consequently, to fuel the country's economic growth, there have been significant social impacts including a larger percentage of women in the workforce, increased access and exposure to Western media, and increased migration of workers

to meet labour needs, sometimes transnationally (Bohr & Tse, 2009; Goh & Kuczynski, 2010). It is unclear how these recent changes have impacted the Chinese family system, although popular press and anecdotal accounts have intimated some possible shifts (Bernstein, 2009; Sengupta, 1999).

One such example is of the emergence of the "little emperor" stereotype stemming from China's one-child policy that began in 1979 (and was recently changed in 2016 to a two-child policy) (Goh, 2006; Zhang, Kohnstamm, Cheung, & Lau, 2001). Indeed, there has been much discussion of single-child families with up to six caregivers (parents, maternal and paternal grandparents) who dote on and often overly indulge an only child. Indulgent and permissive parenting styles have not been observed previously in Chinese families (Tam & Lam, 2003), but the documented consequences of the one-child policy may warrant further investigation (Goh, 2006).

Another phenomenon of China's modernization is the significant growth in Internet use, growing from 1.78% of the country's population with online access in 2000 to 49.3% in 2014 (World Bank, World Development Indicators, 2015). Subsequently, this increase provides more parents with increased access to Western media and North American parenting resources (Luo, Tamis-LeMonda, & Song, 2013). Through media, Chinese families are exposed to Western cultural ideals (e.g., individualism, capitalism) and values of independence, autonomy, and self-direction, which may directly and indirectly influence their parenting styles.

The growing industrialization of China's economy has also resulted in increased migration of the workforce to meet labour demands (Goh & Kuczynski, 2010; Luo et al., 2013). Consequently, many parents are required to live separate from their young children for extended periods of time to earn a living. Grandparents are often considered the de facto caregivers while

parents are away, highlighting the increasing need to research the role of grandparental caregiving and their parenting styles.

Given the multiple transformations and developments within China, including the predominance of single-child families, influence of Western media, and grandparental caregiving, it may be useful to re-evaluate Chinese families' contemporary parenting styles and the associated outcomes for children.

Hypotheses and Research Questions

In this study, I first examined the parenting styles used by CC families who have emigrated from Mainland China, in light of the changing demographic trends in recent CC immigrants. CC families' parenting styles were compared with those of European Canadian (EC) parents born in Canada. Second, I investigated the potential moderating effect of parental sensitivity on the association between parenting styles and child outcomes (cognitive development and behaviour problems) in EC and CC families. Third, I examined how the involvement of co-residing grandparents, as described by parents, impacts family functioning and childrearing in CC families. Lastly, I considered how parental acculturation and life stress might impact parenting style. These investigations were guided by a bioecological framework and the multiple spheres of influence on parenting in immigrant families.

Several hypotheses were generated to address these questions: Hypotheses 1 and 2 relate to the distinct types of parenting styles and how they are associated with child developmental outcomes and maternal sensitivity. Hypotheses 3 relates to the perceived impact of co-residing grandparents on parents' parenting style. Hypotheses 4, 5, and 6 focus on the macrosystemic factors (culture of origin, acculturation, and stress) and their influence on parenting styles in CC families.

Hypothesis 1. To examine which parenting styles are optimal for child development across cultures, the relations between parenting styles and child cognitive and behavioural functioning was estimated for each group.

For CC mothers, Chinese and authoritative parenting styles were hypothesized to be most predictive of positive child outcomes. For EC mothers, authoritative parenting style was predicted to be most strongly associated with positive child outcomes.

Hypothesis 2. Maternal sensitivity shares many dimensional parallels with Baumrind's parenting styles typology. While maternal sensitivity has been linked with positive child outcomes cross-culturally, the relation between authoritarian parenting style and child outcomes in Chinese families has been inconsistent. This study examined the potential moderating roles of maternal sensitivity and maternal cultural heritage in the relation between authoritarian parenting and child outcomes.

Maternal sensitivity was hypothesized to moderate the relation between authoritarian parenting style and child outcomes (child behavior problems and cognitive functioning) in CC and EC dyads. It was predicted that maternal sensitivity would be a stronger moderator than mothers' cultural heritage, such that both CC and EC mothers exhibiting authoritarian parenting styles and high levels of parental sensitivity would be associated with positive child outcomes.

Hypothesis 3. It is common for many Chinese families to have co-residing grandparents who participate in child caregiving. However, it is unclear how grandparents influence and shape parents' parenting styles.

It was predicted that the presence of a co-residing grandparent with a specific caregiving style would provoke parents to use a contrasting approach: thus, permissive grandparenting approaches would increase the parents' endorsement of authoritarian and Chinese parenting

styles. For co-residing grandparents with "old-fashioned" and authoritarian approaches, it was hypothesized that parents would counteract the grandparents' approaches by more strongly endorsing permissive parenting styles.

Hypothesis 4. As previously described, acculturative level has been associated with differences in CC parents' parenting styles.

It was hypothesized that with increased levels of acculturation to Canadian culture, CC mothers would more strongly endorse authoritative and permissive parenting styles and show lower endorsements of authoritarian and Chinese parenting styles.

Hypothesis 5. Su and Hynie (2010) highlighted the importance of understanding larger systemic contexts when examining parenting styles in cross-cultural samples. Similarly, the framework of the bioecological model posits that capturing environmental factors gives a fuller understanding of the dyadic microsystem dynamics (i.e., parenting style).

In light of the sociopolitical changes in China in recent decades and an increased influence of Western ideals and media, it was hypothesized that CC and EC mothers would report similar levels of authoritative and permissive parenting styles, over and above the influence of life stress.

Hypothesis 6. Parents experience multiple forms of stress that may differentially impact their parenting styles. Based on the bioecological model, parenting and life stresses operate within different systems, suggesting that parenting stress, which is associated with the microsystem, may moderate the influence of general life stress on parenting styles.

It was predicted that the relation between life stress and parenting styles would be moderated by parenting stress.

Research questions. To further explore CC mothers' perceptions of multigenerational parenting, a qualitative analysis was guided by an interest in understanding the intergenerational influences on CC mothers' parenting styles, focused on the following questions: what are the dynamics of this intergenerational influence and how do parents calibrate their parenting styles in the presence of co-residing grandparents, if at all?

Method

Participants

Participants included immigrant CC (n = 30) and EC mothers (n = 27) and their young children aged 18 to 42 months. CC mothers were first generation immigrants born in Mainland China. EC mothers were born in Canada and of European or Caucasian heritage. As shown in Table 1, there were no significant demographic differences between CC and EC families with the exception of CC mothers living in homes with a significantly greater number of adults in the household ($t(54) = -5.39$, $p < .001$). CC families without grandparents in the home remained in the sample and were classified in the data as not having co-residing grandparents.

Table 1

Descriptive statistics of overall data and comparison groups

Variable	Overall (N = 57)		EC (n = 27)		CC (n = 30)	
	M	*SD*	*M*	*SD*	*M*	*SD*
Mother's age (years)	33.18	6.53	31.59	7.86	34.66	4.66
Child's age (months)	28.33	7.67	27.67	7.45	28.93	7.95
Number of adults in household	2.88	1.44	2.00	0.88	3.69	1.39
Household annual income	$73,956	$54,207	$83,283	$59,371	$65,346	$48,536
Mother's years living in Canada	--	--	--	--	8.44	4.72

Note. Household annual income is in Canadian dollars.

Table 2

Maternal education frequencies for overall data and comparison groups

	Overall (N = 57)		EC (n = 27)		CC (n = 29)	
	Frequency	Cumulative Percent	Frequency	Cumulative Percent	Frequency	Cumulative Percent
Some high school	5	8.9	4	14.8	1	3.4
Completed high school	7	21.4	3	25.9	4	17.2
Some college/ university	4	28.6	2	33.3	2	24.1
Completed college/ university	25	73.2	9	66.7	16	79.3
Postgraduate training	15	100.0	9	100.0	6	100

Note. Level of education was missing for one CC participant.

Recruitment

Participants were recruited as a part of a larger study examining risk and resilience factors in parent-child relationships across diverse cultural groups. Recruitment efforts were ongoing throughout the data collection process, beginning in May 2012 and ending in April 2016. Recruitment methods included outreach to community agencies (e.g., Ontario Early Years Centres, Community Health Centres), Chinese schools and daycares, and local community-based postings (e.g., parenting groups, neighbourhood forums). There were challenges in recruiting families for the study due to the extended length of the research protocol (approximately 3 hours) for young families, as well as parents' hesitation of engaging their young children with an unfamiliar research team. The research team made efforts to partner with community

stakeholders to build relationships with the community and to facilitate trust with families. Many research hours were dedicated to regularly attending weekly parenting groups and liaising with community agency frontline staff to foster trust and relationships. Participants were compensated with a $40 grocery gift voucher. Parents also received a newsletter with child development information and a mental health resource information sheet. Children received a participation certificate and small toys.

Measures

The questionnaires and interview questions are attached in Appendix A. Due to copyright limitations, the Bayley's Scale of Infant Development, the Child Behaviour Checklist, and the Parenting Stress Index – Short Form are not attached.

Parenting Styles and Dimensions Questionnaire (PSDQ). The PSDQ used in this study was a revised 79-item version that combined the original PSDQ (Robinson, Mandleco, Olsen, & Hart, 2001) with the Chinese parenting style items from an abridged version of the PSDQ (Wu et al., 2002). The questionnaire items reflected authoritarian (20 items), authoritative (27 items), permissive (15 items), and Chinese (18 items) parenting styles. Participants rated themselves on "how often they perceived themselves exhibiting parenting behaviours reflected in each item" using a five-point scale from 1 (*never*) to 5 (*always*). Mean scores are calculated for each parenting style. The corresponding scale score was not calculated for participants missing greater than 20% of items on a parenting style scale. In a review of 53 articles using the PSDQ, the measure was concluded to have good validity (Olivari, Tagliabue, & Confalonieri, 2013). The review authors highlighted the scale's adaptability in measuring multiple perspectives of parenting style (self-perception, spouse's perception, child's perception) as one of its strengths, which contributed to its validity. Coefficient alpha values were adequate for the authoritative

(.71 to .97) and authoritarian (.62 to .95) styles; the permissive style had lower values (.38 to .89), but had higher values (above .65) in Canadian and American samples than samples from other countries (Olivari et al., 2013). In the present study, coefficient alpha values demonstrated acceptable to good reliability for the authoritative (.76), authoritarian (.82), and Chinese parenting styles (.83). Consistent with previous studies, the permissive parenting style had weaker internal consistency (coefficient α = .68).

Mini-Maternal Behaviour Q-Sort-V-R (MBQS). The MBQS is an observational coding system assessing maternal sensitivity and mother-infant interactions (Pederson & Moran, 1995). The items were developed to reflect key aspects Ainsworth's maternal sensitivity dimensions, which are widely considered the foundations of maternal sensitivity (Bohr, Putnick, Lee, & Bornstein, 2018). The 25-item Mini-MBQS-V-R version of the coding system (Tarabulsy et al., 2009) was used in this study. This shorter measure produced a Global Sensitivity Score, which was a correlation to the criterion sort of the ideal sensitive mother established by the researchers who developed the original measure (Tarabulsy et al., 2009). The Global Sensitivity Score had good criterion validity with measures of cognitive development (r = .48) and attachment security (r = .34), and strong inter-rater reliability (r_i = .94). The MBQS was used to code the full videotaped interaction of the mother and her child by a researcher who obtained appropriate training and reliability in the measure. In the current study, every fifth CC and every fifth EC mother-child interaction (i.e. six in each group) was coded by a second reliable and trained coder to ensure adequate reliability. Two-way mixed-effects, absolute agreement intraclass correlations demonstrated strong interrater reliability (single measure *ICC*(3, 1) = .86, 95% CI [.57, .96]; average measure *ICC*(3, 2) = .92, 95% CI [.73, 98]) (Hallgren, 2012).

Bayley Scales of Infant and Toddler Development, Third Edition (BSID-III). The BSID-III is a comprehensive standardized assessment of children's development widely used for clinical and research purposes (Bayley, 2006a). It provides norms for children aged 1 to 42 months. For this study, the Cognitive scale was administered and scored. The assessment was administered by a trained and experience examiner, "familiar with…developmental assessment and interpretation" (Albers & Grieve, 2007, p. 182). Using the BSID-III standardized testing kit, the examiner administered the assessment with the young child. When needed, a parent sat in the room, but abstained from helping the child complete tasks. The raw score was converted to a standardized composite score (M = 100, SD = 15). The BSID-III maintains strong psychometric properties. The average internal consistency reliability coefficient was .91 for the Cognitive scale (Albers & Grieve, 2007). Confirmatory factor analysis, as well as multiple examinations of concurrent validity, provided evidence for strong validity (Albers & Grieve, 2007; Bayley, 2006b).

Child Behaviour Checklist (CBCL). The CBCL is a widely used research and clinical standardized measure of internalizing and externalizing problem behaviours for children aged 1.5 years to 5 years (Achenbach & Rescorla, 2000). It is a part of a larger multi-informant assessment tool, but for the purposes of this study, only the parent-report form was used. Parents were asked to rate 101 behaviours using a three-point scale from 0 (*never*) to 2 (*always*). The Total Problem Score is a sum of all items. The test-retest reliability of the Total Problems scale after an average of 8 days was r = .90. As expected with a standardized measure, the technical manual provided strong evidence for content and criterion-related validity (Achenbach & Rescorla, 2000). Further, this measure has been translated into multiple languages and cross-validated in many countries, including China (Liu, Cheng, & Leung, 2011). The Total Problems

score was used in this study as the measure of child behaviour problems. In the present study, the Total Problems score had strong reliability (α = .94).

Perceived Stress Scale (PSS). The PSS is a ten-item self-report measure of general life stress designed for community-based research (Cohen & Williamson, 1988). Participants rated statements related to the degree to which they felt their lives were unpredictable and overloaded using a five-point scale from 0 (*never*) to 4 (*very often*). Higher PSS scores reflect higher levels of life stress. The PSS had adequate reliability (test-retest reliability of r = .85 after two days) (Cohen, Kamarck, & Mermelstein, 1983). There was strong concurrent validity with a measure of stressful life events (r = .24 to .49 across three samples), and strong predictive validity with measures of depression (Center for Epidemiological Studies Depression Scale, r = .76) and utilization of health services (r = .20) (Cohen et al., 1983). In a Chinese sample of cardiac patients who smoke, Leung, Lam, and Chan (2010) reported good reliability (coefficient α of .76 to .83) and some concurrent validity with measures of anxiety (r = .19), depression (r = .24), and perceived health status (r = -.17). A Chinese version of the PSS was used for this study (Wang, 2008). In the present study, the overall PSS score had good reliability (α = .81).

Parenting Stress Index – Short Form, Third Edition (PSI-SF). The PSI-SF is a 36-item standardized self-report measure of parenting stress for parents with children 12 years and younger (Abidin, 1995). Participants rated statements with a five-point scale from 1 (*strongly agree*) to 5 (*strongly disagree*). The PSI-SF is derived from the Parenting Stress Index, which consisted of 120 items (Abidin, 1983). The PSI-SF Total Stress score consists of parent, child, and dyadic interaction factors which contribute to parenting stress, with higher scores corresponding to increased parenting stress. The PSI has been translated into multiple languages and is frequently used in clinical and research settings. The original long-form Parenting Stress

Index demonstrated strong psychometric properties (Abidin, 1995). The short-form PSI measure has also demonstrated strong construct validity (Haskett, Ahern, Ward, & Allaire, 2006). The PSI-SF Total Stress test-retest reliability after one year was $r = .75$ (Haskett et al., 2006). The Total Stress score was used in this study as a measure of parenting stress. In the present study, the PSI-SF Total Stress score had good reliability ($\alpha = .94$).

Vancouver Index of Acculturation (VIA). The VIA is a bidimensional self-report measure of acculturation (Ryder, Alden, & Paulhus, 2000). It measures identification with the heritage (i.e., Chinese) and mainstream (i.e., Canadian) culture. The 20-item questionnaire asks participants to rate statements using a nine-point scale from 1 (*strongly disagree*) to 9 (*strongly agree*). CC mothers completed two VIA questionnaires (heritage and mainstream cultures) as a part of the larger study, but only the CC mothers' mainstream culture VIA (Canadian culture) was used for this study. Higher scores reflected increased acculturation to Canadian culture. The VIA has strong psychometric properties including high internal consistency ($\alpha = .91$ to .92), concurrent validity with percentage of time lived in a Western country ($r = .57$), generational status ($r = .42$), and a unidimensional acculturation measure (Suinn-Lew Asian Self-Identity Acculturation Scale, $r = .60$), and strong factorial validity (Ryder et al., 2000). In the present study, there was good reliability for the VIA mainstream culture score ($\alpha = .94$).

Semi-structured interview and qualitative analysis. Mothers were asked five main open-ended questions with follow-up questions as needed, as part of a larger research study on topics related to parenting, the role of other caregivers, and intergenerational parenting influences (Appendix A, p. 49). The broader qualitative research questions centred on the examination of the intergenerational dynamic of parenting in CC multigenerational families. The interview questions aimed to gather information about specific parenting practices and

beliefs in CC multigenerational families, cultural and acculturative forces on parenting, and intergenerational impacts on parent-child relationships. Interview data were qualitatively analyzed using thematic analysis (Braun & Clarke, 2006; 2012). This method involves six phases of analysis: familiarization with the data, developing initial codes, searching for themes, reviewing potential themes, naming themes, and producing the final analysis (Braun & Clarke, 2006). The thematic analysis used in the present study was guided using an inductive, realist paradigm. Given the limited research and understanding of multigenerational CC families, the themes were developed with a data-driven, "bottom-up" approach to allow for rich descriptions of the data (Braun & Clarke, 2006). The data were semantically coded to provide descriptive information to this under-researched topic, rather than using latent codes that extend to deeper interpretations of underlying ideologies that are more common in well-established research areas. Themes were identified when they reflected important and "patterned responses/meanings", and not necessarily by prevalence or frequency count of codes (pp. 82, Braun & Clarke, 2006). Importantly, although thematic analysis is a robust and rigorous research method, qualitative analysis is an active process in which a researcher brings their own values, experiences, and histories onto the interpretation of the data (Braun & Clarke, 2006). Thus, it was imperative for myself as the researcher to have an "ongoing reflexive dialogue" about the values and assumptions (e.g., as a Taiwanese-Canadian immigrant) I brought to the data throughout data analysis (pp. 82, Braun & Clarke, 2006; 2013). It is critical in any qualitative research to acknowledge and honour the personal involvement and partiality that colours the interpretation of the interview data (Clarke & Braun, 2013).

Procedures

Research ethics approval for the larger study, from which the present study's data were drawn, was obtained through the York University Office of Research Ethics. Participants were presented with the option of completing the study at the Infant and Child Mental Health Lab at York University or to being visited at home (n = 49), community early childhood agency (n = 6), or at a local community meeting place (e.g., public library) (n = 2) by the researcher and a trained research assistant (RA). The majority of participants chose to complete the research study in their homes, so the researcher and RA would travel upwards of 2.5 hours (round trip) to families' homes within the Greater Toronto Area. The full research protocol was typically completed in 3 to 4 hours. At times, breaks were needed for the child and/or to allow the mother to tend to other duties such as taking care of their other children. For CC families, data collection was conducted by researchers fluent in English and Chinese (Mandarin, Cantonese). The informed consent form was verbally translated by the RA and the procedure was thoroughly described to the mother in her native language. If the mother consented, she signed two copies of the informed consent form, one of which she retained for her own records. Once consent was obtained, the researcher completed the cognitive assessment measure with the child while the mother completed the questionnaires with the assistance of the RA. For children who had difficulty separating from their mother, the cognitive assessment was completed in the same room as the mother. Mothers were instructed to abstain from supplying hints or answers to the child. The cognitive assessment was conducted in the language that the mother felt was most familiar to her child. A 10 to 15 minute parent-child play interaction was then videotaped by the researcher. This interaction included free play (with and without toys), a teaching task (NCAST Caregiver/Parent-Child Teaching Task; Sumner & Spietz, 1994), and a novel toy segment

(Gerull & Rapee, 2002; Tryphonopoulos, Letrourneau, DiTommaso, 2016). These play-based tasks are commonly used in parenting and sensitivity research to elicit dyadic interactions and parenting behaviours (Tryphonopoulos et al., 2016). The last part of the study was a brief 10- to 15-minute semi-structured interview with the mother, which was audiotaped. Interviews were conducted in mothers' native language.

Results

Results Based on Interview Data

Parent interview transcripts were transcribed by bilingual (Chinese and English) research assistants into English and analyzed in English by the primary researcher. Thematic analysis was used to extract common themes from the interview transcripts (Braun & Clark, 2006; 2012).

The content of the interviews provided rich descriptions by CC mothers of the intergenerational influences on their parenting. Mothers reflected on their experiences parenting within intergenerational contexts, often with co-residing grandparents. Major themes of cultural continuity and discontinuity of parenting were identified in the interviews (Figure 1).

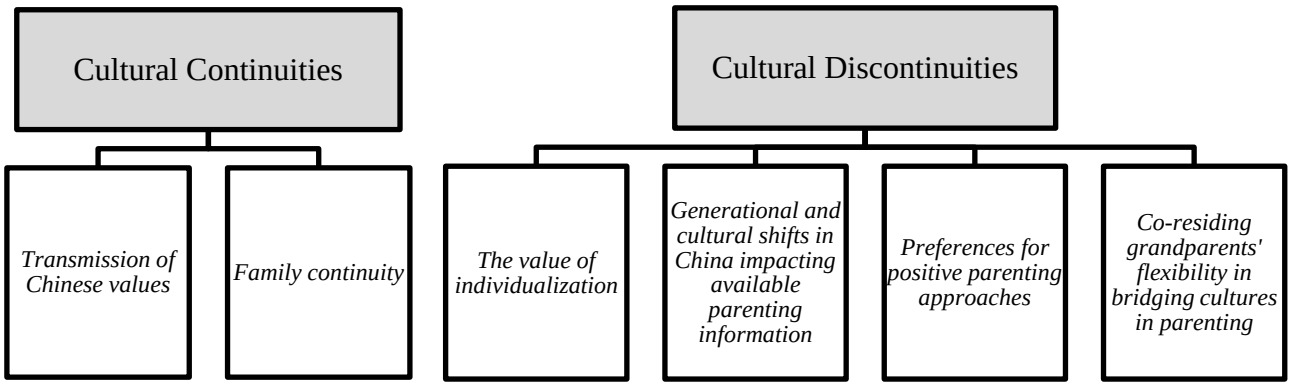

Figure 1. Major themes and subthemes based on interview data.

Cultural continuities of parenting.

Many mothers expressed desires to pass on important cultural teachings to their children through their parenting. Mothers' motivations to further their cultural heritage to their offspring was grounded in themes of the *transmission of Chinese or traditional values* and *family continuity*.

Transmission of Chinese or traditional values.

Despite some mothers' reflections of the negative intergenerational influence on their own parenting styles (i.e., desire to parent differently from their upbringing), there was recognition of the positive intergenerational impacts on their own parenting. Some mothers spoke warmly about being raised with Chinese values and the hope to carry forward those parenting strategies with their children:

> I would keep the ways of parenting my parents used when I was a child. I want to keep our traditional elements. I'm afraid that the Canadian education system here would wash away our tradition and makes [my daughter] think parents are not important, and make her too independent. I want her to know that parents are important to them as well. (YPP088)

This mother appeared to express fears that her daughter would not be taught Chinese values, with a specific focus on filial piety.

Similarly, many discussions centred on the Chinese value of education and its significance in CC families. Families dedicated a considerable amount of thoughtful planning and energy into their children's schooling:

> Probably for every Chinese person, education is very important. [My son] is not going to school yet, but I'm still very concerned about this aspect,

> such as which school to go, how is the environment there, including which middle school he should go to in the future. This is a pretty traditional belief for Chinese people. (YPP005)

However, there were suggestions that attitudes towards education within China were shifting, with one mother explaining, "The number of parents [in China] who believe academic grades are not that important is also increasing" (YPP192). The shift towards a less intense focus on academic grades was also noted in CC families living in Canada. Some mothers believed traditional Chinese parenting style's extreme emphasis on academic achievement was overwhelming and stressful, and preferred "a more relaxed form of education" (YPP039). They chose to not place sole emphasis on their child's grades, but rather, sought to focus more holistically on their child's education by encouraging participation in extracurricular activities and play.

Family continuity.

CC mothers frequently emphasized the importance of maintaining the continuity of family relationships across generations. A number of mothers reported that they were raised by their grandparents as young children. Some mothers explained that this was due to their parents needing to work, but the majority of mothers shared this information without additional explanation, suggesting a normative Chinese cultural practice of multigenerational homes and grandparental caregiving. Some mothers viewed the experience positively, reflecting on the close relationship they shared with their grandparents. The multigenerational model of care for these families highlighted the value of family continuity: "I used to live with my [paternal] grandmother. I think family is really important. You celebrate New Year with your family…We think staying together is important" (YPP139). One mother noted that having a child prompted

her to reflect on the intergenerational influence and familial impact of her parenting style: “After having [my son], I thought more about how I grew up, how my friends grew up, how their family influenced them. I emphasize more on family influence than specific teaching strategies” (YPP192).

Many mothers also stressed the importance of parents caring for their children rather than relying solely on grandparents for caregiving, believing that strengthening the familial intimacy between themselves and their children was vital for the parent-child relationship:

> I feel it is important for kids to stay with their parents. Otherwise, there will be a huge emotional gap between parents and kids. So, now when I’m taking care of my daughter, I won’t send her back to China alone and let my parents take care of her. I prefer taking care of her myself no matter how busy I am. (YPP009)

This response refers to a trend among CC families to send their young children to their home countries to be cared for by extended family members until they reach school age (Bohr, 2016). However, due to their own experiences as young children, some mothers have chosen to not separate from their children and instead have decided to remain their child’s primary caregiver in Canada.

Cultural discontinuities of parenting.

CC mothers in the present study consistently identified cultural discontinuities in their parenting practices and approaches and discussed parents’ attempts to reconcile these discontinuities. Their reflections were often related to themes of *the value of individualization, generational and cultural shifts in China impacting available parenting information, preferences*

for positive parenting approaches, and *co-residing grandparents' flexibility in bridging cultures in parenting* their grandchildren.

The value of individualization.

Cross-cultural researchers have described Canadian and Western cultures as ascribing to individualistic ideologies in which an individual is "autonomous and independent from their in-groups [e.g., family, nation]", and personal goals, attitudes, and behaviours supersede group goals (Triandis, 2001, p. 909). This is in contrast to Chinese and other Asian cultures that have been categorized as collectivists cultures that are more oriented towards interdependency with the in-group and relational goals (Triandis, 2001). In the study transcripts, several CC mothers made a distinction that because their children were born in Canada, they believed their children should be raised with Canadian or Western values: "Because he was born [in Canada], he will have his own culture in the future. He won't follow the traditional Chinese culture" (YPP151). Although not an outright rejection of teaching Chinese cultural values, there was an explicit recognition that imparting Canadian values to their children was also an important aspect of their parenting. In particular, many mothers spoke about the concept of individualization and how this value informed their parenting styles. Despite often not feeling like it was part of their upbringing, mothers sought to foster self-direction and autonomy in their children. Mothers noted that they had few choices as children and were expected to "respect" (YPP149) their parents' decisions regardless of what their own personal will was:

> [My mother] wanted me to have a certain lifestyle, but that's not what I wanted. So when I'm facing my next generation, I will assist her in becoming the kind of person she would like to become…I will emphasize

> respecting her wills…on maximizing her potential. I won't force her to do what I think is good. (YPP072)

The focus on individualization for this CC mother reflects a break from the filial piety values and cultural expectations of abiding by parents' wishes.

Several CC mothers made concerted efforts to foster self-direction and independence in their children. In fact, multiple mothers highlighted feeding as a critical opportunity to foster autonomy in their children:

> The [Chinese] parent tends to feed [children], not to encourage their independence. I know Canadians, they encourage children to eat by themselves, but a lot of Chinese people, I noticed that they feed them. They can't help but feed them. They would say, "Oh, they are hungry, you know, feed them. And they are going to make a mess." They are afraid of making a mess. I notice my mom does that. She says, "Oh, they make a mess, let me feed him. It's faster, it's more convenient, you don't have to clean the table and change them." (YPP138)

Because traditional Chinese parenting, carried out by grandparents in some families, includes feeding children beyond toddler years, several parents expressed worries that their children did not have the opportunity to learn how to chew or hold utensils. This concern extended to other developmental skills: "And [the grandparents] won't let her cry, they won't let her fall [down]… How are you going to learn if you don't fall?!" (YPP149). Several CC mothers believed that increasing children's opportunities for self-discovery, exploration, and self-directed learning would allow their children to learn from their mistakes independently.

Generational and cultural shifts in China impacting available parenting information.

Themes of the societal and cultural changes in China were discussed in terms of their broadening influence on parenting resources and cultural perceptions of ideal parenting styles. The increased demand for parenting information appeared to stem from the one-child policy and the increased attention on the child: “During the past ten years, because of the rule that we can only have one child…family’s investment, both financially and energetically, is largely distributed to the child” (YPP005). The dedication of family resources to parenting one child appeared to create intensified focus on child rearing and subsequent demand for parenting resources.

Many mothers highlighted the generational differences disrupting the cultural continuity of parenting, often contrasting “traditional” Chinese parenting styles typically favoured by grandparents with newer parenting approaches of younger generations:

> My generation, in China, those who were born in the 70s or 80s, we were told by our parents that we don’t need to pay attention to anything other than to study. It’s like studying was the supreme task, everything else was inferior to that...Our last generation holds these kind of ideas. But when it comes to my generation, ideas changed. Not just me, all the people in my generation do not hold those kind of ideas anymore. Because after we’ve come to the society, we found that things are so different from what we’ve been told. So when I’m educating [my daughter], I focus on emotional intelligence more, how you socialize with people, how you communicate with people. I believe this aspect is very important, and I’m not very good at this part. (YPP072)

Another mother pointed to China's increased exposure to other cultures in the world as a factor in the changes in parenting styles:

> China, during the past 30 years, after I was born, has had a huge change as well. [The country] is more open, so people know more, learn more from outside…So the new generation Chinese, are probably much better than my parents' generation… Anyways, so everybody's changing. Everybody's opening towards the outside world. (YPP149)

Similar to this mother, other participants spoke of the expanding understanding of accepted ideas and values in China: "There are multiple values that exist in China now. It was relatively narrow before" (YPP192). Chinese cultural understandings of parenting appear to be not singularly informed by Chinese traditions and cultures, but rather have broadened to include an amalgamation of multiple cultures and influences beyond China. The open-minded nature of the Chinese society was described as contributing to potential changes in parenting styles, and allowed for increased discussion and questioning of traditional parenting practices (e.g., intense focus on education, physical punishment).

This increased engagement in outside ideas included CC mothers seeking out expert parenting books and resources rather than relying solely on the intergenerational parenting advice that has typically promoted the cultural continuity of childrearing. This was especially true with respect to appropriate child discipline strategies (i.e., avoiding "traditional" use of spanking) and children's social-emotional development (i.e., focus on "emotional intelligence", participation in non-academic extracurricular activities). One mother noted the popularity of parenting books while also highlighting how she tailored the parenting advice to her own child:

"We now all follow books…Well, it's not like we follow exactly what the book says, you choose what fits your child, and children have different interests at different stages after all" (YPP145).

Preferences for positive parenting approaches.

There were many mothers who spoke negatively of how they were parented as children, and that this subsequently influenced them to choose more positive parenting styles with their children. In fact, a few CC mothers stated they hoped to parent in the opposite manner to how they were raised, explicitly intending to create a cultural disconnect from their own experiences:

> Let me put it this way, whatever [my parents] did with me, I will not do with my child. I know kids don't like being commanded to do things; they don't like being told what you need to do, and what you can't do. (YPP009)

These mothers often spoke of the authoritarian, commanding nature of their parents' childrearing. Some mothers described often feeling "scared" (YPP149) of their parents.

Similarly, in response to what they did not receive as children, mothers noted providing praise to their children as an important parenting practice. For this mother, the lack of encouragement she received as child led to a strained relationship with her mother, something which she was trying to avoid in her own relationship with her child:

> Even now, I have never heard [my mother] say, "Wow, I'm so proud of you. You did a great job today." Always blaming, criticizing, or "you should do better."…Because I didn't receive compliments or encouragements [as a child], I always encourage and say nice words to my child. I think it is very important for a person's growth…I can't have a

> heart-to-heart conversation with [my mother] because I know, whatever I say, I do, it is always "I'm not good" at the end. (YPP083)

By praising their children, these mothers hoped to not only facilitate their child's personal development and "self-confidence" (YPP155), but also to create an intimate and close bond with their child.

In addition to mothers endorsing the use of positive comments with their children, most mothers indicated an effort to stray away from physical forms of punishment (e.g., spanking, hitting) that were used by their parents. They recalled that it felt "unfair" to be spanked as young children (YPP139). Many mothers also alluded to the increased parenting education they had received in Canada as partly why they have chosen not to spank their children:

> My mom is not so educated, so she doesn't know too much about – they used more physical spanking. So I was raised that way, so not so much through communication and other stuff…I received education from being [in Canada], so I am more influenced by the new way of education. Not through spanking and physical discipline. (YPP138)

This mother attributed her parents' lack of formal education as the reason for the use of corporal punishment in parenting. However, she felt having learned Canadian parenting strategies, which were perceived as promoting non-physical forms of punishment, she was adapting her parenting approaches.

Co-residing grandparents' flexibility in support of bridging cultures in parenting.

Many mothers acknowledged and recognized the cultural discontinuities inherent in parenting within a cross-cultural, immigrant context. In an attempt to bridge and reconcile these gaps, several CC families enlisted grandparental involvement in parenting their children. In

situations where grandparents were members of the caregiving team, mothers living in multigenerational homes commented on grandparents' willingness to change and adapt their parenting styles with their grandchildren when it did not align with parents' preferred parenting approaches. Some mothers noted communicating with and providing feedback to grandparents about their parenting styles: "They are still very traditional in a way that they would still blame the table when the child hit the table accidentally [*a child can do no wrong*]. But I would talk to them about this, and they wouldn't do it anymore" (YPP192). In contrast, another mother recalled the grandmother changing to a softer, less harsh parenting style: "She used to yell at [my son] whenever he misbehaved, but now, she found out it may not be a good method. So now, she becomes…more gentle... She tries to change her method" (YPP 013). In these families, grandparents were receptive to this feedback, acknowledging that they hoped to respect the wishes of the parents in childrearing: "my mother in-law will say, you are the parents, I will do what you tell me to do" (YPP197).

There were also themes of changes in grandparents' parenting styles from when they had been parents, making the distinction that grandparenting differed from parenting: "With me, my mom used more [spanking]…I think she is more lenient with the grandchildren...I think her [parenting] concepts may have changed a little bit" (YPP138). Similar to this mother, other parents reported that grandparents were more likely to acquiesce to the child and engage in more permissive parenting styles (e.g., giving child her way, comforting child when crying, feeding child when fussing). However, grandparents' permissive parenting was sometimes beneficial when paired with parents' firmer parenting style:

> We complement each other. They are much more attentive. For example, they will cook, bring him out for a walk. Sometimes, as the mother, I

> would be stricter to the children. But they can be gentle and soften the effects of my strictness. (YPP151)

A few mothers acknowledged conflicts with grandparents about childrearing and parenting styles. These disagreements required mothers to assert themselves with the grandparents (who were sometimes their own parents) about their preferred parenting approaches:

> Because my parents here are in the house to help me, I actually had to do more work than I was supposed to because I had to fight with [my mother] to let her know that's how I raise my children, and it doesn't mean I am spoiling them. (YPP149).

To avoid these potential conflicts, one mother chose not to have grandparental involvement in caregiving: "If a senior helps take care of your child, you can't say anything. So I just take care of the child myself." YPP197.

Results Based on Questionnaire Data

An alpha level of .05 was used as the significance criterion for all statistical tests, except the significance tests of the correlations between variables which used an alpha level of .001. The means and standard deviations for the sample are presented in Table 3, and the correlations among variables are presented in Table 4. Maternal sensitivity was significantly correlated with authoritarian (r = -.42) and authoritative parenting style (r = .39). Parenting stress was significantly associated with all other variables (r = -.52 to .71) except authoritative parenting style (r = -.27), child cognitive development (r = -.17), and maternal sensitivity (r = -.33). There were multiple significant correlations among the four parenting styles. Specifically, permissive parenting was positively correlated with authoritarian (r = .47) and Chinese parenting

styles (r = .47), and authoritarian parenting was positively correlated with Chinese parenting style (r = .60).

Table 3

Means and standard deviations for overall data and comparison groups

	Overall (N = 57)		EC (n = 27)		CC (n = 30)	
	M	*SD*	*M*	*SD*	*M*	*SD*
Authoritative parenting style	4.11	0.44	4.21	0.39	4.00	0.48
Authoritarian parenting style	1.83	0.45	1.60	0.37	2.08	0.39
Permissive parenting style	2.12	0.40	1.91	0.36	2.34	0.31
Chinese parenting style	2.40	0.52	2.09	0.42	2.71	0.42
Child cognitive development	106.27	14.91	106.80	17.31	105.83	12.87
Child behavioural problems	35.22	26.66	34.21	34.43	36.03	18.91
Maternal sensitivity	.32	.45	.40	.42	.26	.47
Parenting Stress	86.80	25.49	67.08	17.34	103.79	18.06
Life Stress	16.63	5.48	16.56	6.67	16.70	4.26
Acculturation to Canadian culture	6.19	1.54	7.07	1.92	5.66	0.95

Table 4

Correlations, means, and standard deviations for variables

Variable	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. Authoritative parenting style	1.00	–	–	–	–	–	–	–	–	–
2. Authoritarian parenting style	-.27	1.00	–	–	–	–	–	–	–	–
3. Permissive parenting style	-.33	.47*	1.00	–	–	–	–	–	–	–
4. Chinese parenting style	-.15	.60*	.47*	1.00	–	–	–	–	–	–
5. Child cognitive development	.14	-.25	-.19	-.40*	1.00	–	–	–	–	–
6. Child behavioral problems	-.18	.40*	.40*	.37	-.27	1.00	–	–	–	–
7. Maternal sensitivity	.39*	-.42*	-.30	-.30	.28	-.36	1.00	–	–	–
8. Parenting stress	-.27	.71*	.55*	.62*	-.17	.37*	-.33	1.00	–	–
9. Life stress	.07	.19	.29	.18	-.16	.47*	-.30	.36*	1.00	–
10. Acculturation to Canadian culture	.19	-.34	-.23	-.32	-.11	-.36	.30	-.52*	-.19	1.00
M	4.11	1.83	2.12	2.40	106.27	35.22	0.36	86.80	16.63	6.19
SD	0.44	0.45	0.40	0.52	14.91	26.66	0.52	25.49	5.48	1.54
n	51	52	52	53	55	54	55	57	54	48

Note. $N = 57$. *$p < .01$.

Hypothesis 1.

Eight models were specified a priori, with four models for each of the outcome variables (child cognitive development and behaviour problems). Multiple regression models were estimated using ordinary-least-squares (OLS) to assess which parenting styles were most predictive of positive child outcomes for CC and EC mothers. For each model, the outcome variable was regressed on parenting style (authoritative, authoritarian, permissive, or Chinese), maternal culture (CC or EC), and its interaction term (Parenting Style × Maternal Culture).

Child cognitive development models.

Prior to interpretation, regression diagnostics revealed an approximately normal distribution of residuals, linearity, and overall homoscedasticity. There was no evidence of extremely influential observations. As shown in Tables 5 to 8, for each of the four parenting style models, the interaction terms were not significant, suggesting that maternal culture did not moderate the parenting style's association with a child's cognitive development.

Table 5

Results for regression of child cognitive development on authoritative parenting style and maternal culture (EC=0, CC=1), with and without their interaction

Variable	*B*	*SE*(*B*)	*t*	*p*	95% CI
Authoritative parenting style	-1.89	7.98	-0.24	.81	(-17.97, 14.18)
Maternal culture	-45.95	42.93	-1.07	.29	(-132.41, 40.50)
Authoritative parenting style × maternal culture	10.87	10.35	1.05	.30	(-9.97, 31.71)
Results without the interaction term					
Authoritative parenting style	4.57	5.09	0.90	.37	(-5.66, 14.81)
Maternal culture	-1.12	4.56	-0.25	.81	(-10.30, 8.06)

With interaction term: $R^2 = .045$, $F(3, 45) = 0.71$, $p = .55$; without interaction term: $R^2 = .022$, $F(2, 46) = 0.52$, $p = .60$.

Table 6

Results for regression of child cognitive development on authoritarian parenting style and maternal culture (EC=0, CC=1), with and without their interaction

Variable	*B*	*SE*(*B*)	*t*	*p*	95% CI
Authoritarian parenting style	-6.65	8.19	-0.81	.42	(-23.14, 9.85)
Maternal culture	17.43	21.603	0.81	.42	(-26.05, 60.92)
Authoritarian parenting style × maternal culture	-7.54	11.42	-0.66	.51	(-30.52, 15.45)
Results without the interaction term					
Authoritarian parenting style	-10.53	5.67	-1.86	.07	(-21.94, 0.89)
Maternal culture	3.58	5.05	0.71	.48	(-6.58, 13.74)

With interaction term: $R^2 = .079$, $F(3, 46) = 1.31$, $p = .28$; without interaction term: $R^2 = .070$, $F(2, 47) = 1.78$, $p = .18$.

Table 7

Results for regression of child cognitive development on permissive parenting style and maternal culture (EC=0, CC=1), with and without their interaction

Variable	*B*	*SE*(*B*)	*t*	*p*	95% CI
Permissive parenting style	-8.66	8.69	-1.00	.32	(-26.15, 8.83)
Maternal culture	3.39	29.47	0.12	.91	(-55.94, 62.71)
Permissive parenting style × maternal culture	-0.38	13.47	-0.03	.98	(-27.49, 26.73)
Results without the interaction term					
Permissive parenting style	-8.82	6.57	-1.34	.19	(-22.03, 4.40)
Maternal culture	2.57	5.26	0.49	.63	(-8.01, 13.16)

With interaction term: $R^2 = .039$, $F(3, 46) = 0.62$, $p = .60$; without interaction term: $R^2 = .039$, $F(2, 47) = 0.95$, $p = .39$.

Table 8

Results for regression of child cognitive development on Chinese parenting style and maternal culture (EC=0, CC=1), with and without their interaction

Variable	*B*	*SE*(*B*)	*t*	*p*	95% CI
Chinese parenting style	-11.30	6.20	-1.82	.07	(-23.78, 1.18)
Maternal culture	25.46	21.31	1.20	.24	(-17.40, 68.32)
Chinese parenting style × maternal culture	-7.51	8.70	-0.86	.39	(-25.01, 10.00)
Results without the interaction term					
Chinese parenting style	-15.12	4.34	-3.48	.001	(-23.84, -6.39)
Maternal culture	7.50	4.55	1.65	.11	(-1.65, 16.65)

With interaction term: R^2 = .218, $F(3, 47) = 4.358$, p = .009; without interaction term: R^2 = .205, $F(2, 48) = 6.20$, p = .004.

When the interaction term was removed from the models, Chinese parenting style was significantly negatively associated with child cognitive development when maternal culture was held constant, B = -15.12, $t(48) = -3.48$, p = .001, 95% CI [-23.84, -6.39].

An exploratory regression model was estimated by regressing child cognitive development on all four parenting styles and maternal culture simultaneously (Table 9). The parenting style variables and maternal culture accounted for a significant proportion of variance, R^2 = .24, in cognitive development, $F(5, 41) = 2.578$, p = .04. Chinese parenting style was uniquely significantly associated with child cognitive development, over and above all other parenting styles and maternal culture, B = -11.38, $t(41) = -2.14$, p = .04, 95% CI [-22.12, -0.64].

Table 9

Results for regression of child cognitive development on all parenting styles and maternal culture (EC=0, CC=1)

Variable	*B*	*SE*(*B*)	*t*	*p*	95% CI
Authoritative parenting style	5.68	4.87	1.17	.25	(-4.15, 15.51)
Authoritarian parenting style	-4.44	5.84	-0.76	.45	(-16.23, 7.36)
Permissive parenting style	-3.12	6.59	-0.47	.64	(-16.44, 10.20)
Chinese parenting style	-11.38	5.32	-2.14	.04	(-22.12, -0.64)
Maternal culture	8.98	5.54	1.62	.11	(-2.21, 20.18)

R^2 = .239, $F(5, 41) = 2.578$, $p = .04$.

These results did not support the hypothesis of maternal culture's interaction with parenting style to impact child cognitive development. Nevertheless, when controlling maternal culture, there was a significant association between Chinese parenting style and child cognitive development.

Child Behaviour Problem Models.

Regression diagnostics revealed no major concerns regarding model assumptions (i.e., linearity, normal distribution of errors, homogeneity of variance). However, there was an influential case with a large value of Cook's distance. Consequently, models were estimated with the full data and with the influential outlier case transformed to the second highest value plus one (as recommended by Tabachnick & Fidell, 2006).

Using the full dataset without transforming the outlier, each of the parenting style models, with the exception of the authoritative parenting style model, demonstrated a significant interaction between parenting style and maternal culture (Tables 10 to 13). To probe the interactions, the simple slope effects of the parenting variables within each level of maternal culture were estimated. Authoritarian parenting style significantly predicted increased child behaviour problems for EC families, $B = 55.04$, $t(45) = 4.20$, $p < .001$, 97.5% CI [24.67, 85.41],

but not for CC families, $B = 7.72$, $t(45) = 0.62$, $p = .54$, 97.5% CI [-21.20, 36.63]. Permissive parenting style significantly predicted increased child behaviour problems for EC families, $B = 59.41$, $t(45) = 4.38$, $p < .001$, 97.5% CI [27.94, 90.88], but not for CC families, $B = 6.51$, $t(45) = 0.42$, $p = 68$, 97.5% CI [-29.75, 42.76]. Chinese parenting style significantly predicted increased child behaviour problems for EC families, $B = 43.72$, $t(45) = 3.75$, $p < .001$, 97.5% CI [16.68, 70.77], but not for CC families, $B = 10.62$, $t(45) = 0.95$, $p = .35$, 97.5% CI [-15.24, 36.48]. For the authoritative parenting style model, the overall proportion of variance explained was non-significant, $R^2 = .033$, $F(3, 44) = 0.50$, $p = .69$. When the interaction term was removed and the model was re-estimated, there continued to be no significant associations between child behavioral problems and authoritative parenting or maternal culture.

Table 10

Results for regression of child behaviour problems on authoritative parenting style and maternal culture (EC=0, CC=1), with and without their interaction

Variable	*B*	*SE*(*B*)	*t*	*p*	95% CI
Authoritative parenting style	-11.50	17.01	-0.68	.50	(-45.77, 22.78)
Maternal culture	-0.18	86.35	-0.002	.998	(-174.21, 173.85)
Authoritative parenting style × maternal culture	0.13	20.75	0.006	.995	(-41.70, 41.96)
Results without the interaction term					
Authoritative parenting style	-11.41	9.64	-1.18	.24	(-30.83, 8.00)
Maternal culture	0.36	8.25	0.04	.97	(-16.26, 16.98)

With interaction: $R^2 = .033$, $F(3, 44) = 0.50$, $p = .69$; without interaction: $R^2 = .033$, $F(2, 45) = 0.76$, $p = .47$.

Table 11

Results for regression of child behaviour problems on authoritarian parenting style and maternal culture (EC=0, CC=1), and their interaction

Variable	*B*	*SE*(*B*)	*t*	*p*	97.5% CI
Authoritarian parenting style	55.04	13.10	4.20	.0001	(24.67, 85.41)
Maternal culture	77.31	34.30	2.25	.03	(-2.23, 156.85)
Authoritarian parenting style × maternal culture	-47.33	18.08	-2.62	.01	(-89.26, -5.39)
Results with reverse-coded maternal culture (CC=0, EC=1)					
Authoritarian parenting style	7.72	12.47	0.62	.54	(-21.20, 36.63)
Maternal culture	-77.31	34.30	-2.25	.03	(-156.85, 2.23)
Authoritarian parenting style × maternal culture	47.33	18.08	2.62	.01	(5.39, 89.26)

R^2 = .290, $F(3, 45) = 6.11$, $p = .001$.

Table 12

Results for regression of child behaviour problems on permissive parenting style and maternal culture (EC=0, CC=1), and their interaction

Variable	*B*	*SE*(*B*)	*t*	*p*	97.5% CI
Permissive parenting style	59.41	13.57	4.38	< .001	(27.94, 90.88)
Maternal culture	100.38	45.15	2.22	.03	(-4.32, 205.07)
Permissive parenting style × maternal culture	-52.90	20.70	-2.56	.01	(-100.91, -4.90)
Results with reverse-coded maternal culture (CC=0, EC=1)					
Permissive parenting style	6.51	15.63	0.42	.68	(-29.75, 42.76)
Maternal culture	-100.38	45.15	-2.22	.03	(-205.07, 4.32)
Permissive parenting style × maternal culture	52.90	20.70	2.56	.01	(4.90, 100. 91)

R^2 = .304, $F(3, 45) = 6.54$, $p = .001$.

Table 13

Results for regression of child behaviour problems on Chinese parenting style and maternal culture (EC=0, CC=1), and their interaction

Variable	*B*	*SE*(*B*)	*t*	*p*	97.5% CI
Chinese parenting style	43.72	11.67	3.75	< .001	(16.68, 70.77)
Maternal culture	64.15	39.21	1.64	.11	(-26.70, 155.00)
Chinese parenting style × maternal culture	-33.10	16.15	-2.05	.05	(-70.52, 4.31)
OLS regression with reverse-coded maternal culture (CC=0, EC=1)					
Chinese parenting style	10.62	11.16	0.95	.35	(-15.24, 36.48)
Maternal culture	-64.15	39.21	-1.64	.11	(-155.00, 26.70)
Chinese parenting style × maternal culture	33.104	16.15	2.05	.05	(-4.31, 70.52)

R^2 = .247, $F(3, 46) = 5.05$, $p = .004$.

An exploratory regression model was estimated by regressing child behaviour problems on all four parenting styles and maternal culture simultaneously (Table 14). Chinese parenting style was uniquely significantly associated with increased child behaviour problems, over and above all other parenting styles and maternal culture, $B = 24.95$, $t(40) = 2.07$, $p = .04$, 95% CI [0.63, 49.28]. Maternal culture was uniquely significantly associated with child behaviour problems over and above parenting styles, $B = -26.99$, $t(40) = -2.77$, $p = .008$, 95% CI [-46.65, -7.33]. No other predictors had a significant effect.

Table 14

Results for regression of child behaviour problems on all parenting styles and maternal culture (EC=0, CC=1)

Variable	*B*	*SE*(*B*)	*t*	*p*	95% CI
Authoritative parenting style	-4.62	9.30	-0.50	.62	(-23.40, 14.17)
Authoritarian parenting style	14.58	10.33	1.41	.17	(-6.31, 35.46)
Permissive parenting style	17.51	9.43	1.86	.07	(-1.56, 36.57)
Chinese parenting style	24.95	12.04	2.07	.04	(0.63, 49.28)
Maternal culture	-26.99	9.73	-2.77	.008	(-46.65, -7.33)

R^2 = .367, $F(5, 40) = 4.64$, $p = .002$.

As shown in Tables 15 to 18, when the models were re-estimated with the outlying case transformed, the interaction terms in each model (i.e., Parenting Style × Maternal Culture) were not significant. To improve model parsimony and interpretation, the interaction terms were removed from the models and re-estimated. In all four models, maternal culture was not significantly associated with child behaviour problems over and above parenting style. Authoritative parenting style was not significantly associated with child behaviour problems over and above maternal culture. However, for the three remaining models, the parenting style was significantly associated with increased child behaviour problems over and above maternal culture (refer to Tables 16 to 18 for details).

Table 15

Results for regression of child behaviour problems on authoritative parenting style and maternal culture (EC=0, CC=1), and their interaction with outlier case transformed

Variable	*B*	*SE*(*B*)	*t*	*p*	95% CI
Authoritative parenting style	0.06	12.66	0.005	.996	(-25.22, 25.56)
Maternal culture	52.28	64.26	0.81	.42	(-77.22, 181.78)
Authoritative parenting style × maternal culture	-11.43	15.44	-0.174	.46	(-42.55, 19.70)
Results without the interaction term					
Authoritative parenting style	-7.61	7.22	-1.06	.30	(-22.15, 6.92)
Maternal culture	4.95	6.18	0.80	.43	(-7.49, 17.40)

With interaction: $R^2 = .06$, $F(3, 44) = 0.95$, $p = .43$; without interaction: $R^2 = .05$, $F(2, 45) = 1.16$, $p = .32$.

Table 16

Results for regression of child behaviour problems on authoritarian parenting style and maternal culture (EC=0, CC=1), and their interaction with outlier case transformed

Variable	*B*	*SE*(*B*)	*t*	*p*	95% CI
Authoritarian parenting style	25.69	10.86	2.37	.02	(3.82, 47.57)
Maternal culture	33.09	28.45	1.16	.25	(-24.22, 90.39)
Authoritarian parenting style × maternal culture	-17.98	15.00	-1.20	.24	(-48.19, 12.23)
Results without the interaction term					
Authoritarian parenting style	16.27	7.53	2.16	.04	(1.12, 31.41)
Maternal culture	-0.09	6.62	-0.01	.99	(-13.42, 13.24)

With interaction: R^2 = .15, $F(3, 45) = 2.60$, p = .06; without interaction: R^2 = .12, $F(2, 46) = 3.15$, p = .05.

Table 17

Results for regression of child behaviour problems on permissive parenting style and maternal culture (EC=0, CC=1), and their interaction with outlier case transformed

Variable	*B*	*SE*(*B*)	*t*	*p*	95% CI
Permissive parenting style	31.47	11.15	2.82	.007	(9.01, 53.92)
Maternal culture	51.34	37.09	1.38	.17	(-23.35, 126.04)
Permissive parenting style × maternal culture	-24.96	17.01	-1.47	.15	(-59.21, 9.29)
Results without the interaction term					
Permissive parenting style	20.74	8.52	2.43	.02	(3.58, 37.90)
Maternal culture	-2.19	6.83	-0.32	.75	(-15.93, 11.55)

With interaction: R^2 = .18, $F(3, 45) = 3.31$, p = .03; without interaction: R^2 = .14, $F(2, 46) = 3.80$, p = .03.

Table 18

Results for regression of child behaviour problems on Chinese parenting style and maternal culture (EC=0, CC=1), and their interaction with outlier case transformed

Variable	*B*	*SE*(*B*)	*t*	*p*	95% CI
Chinese parenting style	18.75	9.33	2.01	.05	(-0.02, 37.53)
Maternal culture	16.47	31.34	0.53	.60	(-46.61, 79.54)
Chinese parenting style × maternal culture	-8.13	12.91	-0.63	.53	(-34.11, 17.85)
Results without the interaction term					
Chinese parenting style	14.51	6.41	2.27	.03	(1.62, 27.39)
Maternal culture	-2.80	6.81	-0.41	.68	(-16.50, 10.90)

With interaction: R^2 = .13, $F(3, 46) = 2.30$, p = .09; without interaction: R^2 = .12, $F(2, 47) = 3.30$, p = .05.

The exploratory regression model simultaneously regressing child behaviour problems onto all four parenting styles and maternal culture was estimated with the outlying case transformed (Table 19). Although the overall R^2 = .25 was significant, $F(5, 40) = 2.66$, p = .04, the parenting styles and maternal culture were not significant unique predictors of behaviour problems.

Table 19

Results for regression of child behaviour problems on all parenting styles and maternal culture (EC=0, CC=1) with outlier case transformed

Variable	*B*	*SE*(*B*)	*t*	*p*	95% CI
Authoritative parenting style	-7.06	7.44	-0.95	.35	(-22.09, 7.97)
Authoritarian parenting style	7.49	8.27	0.91	.37	(-9.23, 24.20)
Permissive parenting style	9.54	7.55	1.27	.21	(-5.71, 24.79)
Chinese parenting style	10.91	9.63	1.13	.26	(-8.55, 30.38)
Maternal culture	-7.98	7.78	-1.03	.31	(-23.71, 7.75)

R^2 = .25, $F(5, 40) = 2.66$, p = .04.

These results did not fully support the hypothesis of maternal culture's interaction with parenting style to impact child behaviour problems. Yet, similar to the child cognitive

development models, when controlling maternal culture, there were significant associations between some parenting styles (i.e., authoritarian, permissive, and Chinese) and increased child behaviour problems.

Hypothesis 2.

In order to examine whether maternal sensitivity or maternal culture was a stronger moderator of the relationship between authoritarian parenting style and child outcomes (child cognitive development and child behaviour problems), the effects (ΔR^2) of two maternal sensitivity and maternal culture models were compared to assess which hypothesized moderator had a stronger association. For each model, the child outcome was regressed on authoritarian parenting style, maternal sensitivity, and their interaction. Next, to compare the effects of maternal sensitivity to maternal culture, the child outcome variable was also regressed on authoritarian parenting style, maternal culture, and their interaction.

Child cognitive development models.

Diagnostic analysis highlighted an outlier in the Studentized residuals plot ($t > 3$). Regression models were estimated with the full dataset and with the outlying case transformed to the second lowest value minus one (as recommended by Tabachnick & Fidell, 2006).

Using the full dataset without transforming the outlier, the interaction terms in both models were not significant and their effects were weak (ΔR^2 maternal sensitivity model = .0008, ΔR^2 maternal culture model = .0087) (Tables 20 to 21).

Table 20

Results for regression of child cognitive development on authoritarian parenting style and maternal sensitivity (EC=0, CC=1) and their interaction

Variable	*B*	*SE*(*B*)	*t*	*p*	95% CI
Authoritarian parenting style	-8.76	5.74	-1.53	.14	
Maternal sensitivity	1.57	20.73	0.08	.94	
Authoritarian parenting style × maternal sensitivity	2.06	10.22	0.20	.84	
Results without the interaction term					
Authoritarian parenting style	-8.47	5.50	-1.54	.13	
Maternal sensitivity	5.61	5.16	1.09	.28	

With interaction: R^2 = .1247, $F(3, 43) = 2.04$, p = .12; without interaction: R^2 = .1239, $F(2, 44) = 3.12$, p = .05.

Table 21

Results for regression of child cognitive development on authoritarian parenting style and maternal culture (EC=0, CC=1) and their interaction

Variable	*B*	*SE*(*B*)	*t*	*p*	95% CI
Authoritarian parenting style	0.89	18.22	0.05	.96	
Maternal culture	17.43	21.60	0.81	.42	
Authoritarian parenting style × maternal culture	-7.54	11.42	-0.66	.51	
Results without the interaction term					
Authoritarian parenting style	-10.53	5.67	-1.86	.07	
Maternal culture	3.58	5.05	0.71	.48	

With interaction: R^2 = .07893, $F(3, 46) = 1.31$, p = .28; without interaction: R^2 = .07021, $F(2, 47) = 1.78$, p = .18.

These findings did not differ when the outlying case was transformed, with very weak interaction effects (ΔR^2 maternal sensitivity = .0004, ΔR^2 maternal culture = .0093), which were not significant in either model (Authoritarian Parenting Style × Maternal Sensitivity, B = 1.24, $t(43) = 0.13$, p = .90; Authoritarian Parenting Style × Maternal Culture, B = -7.50, $t(46) = -0.68$, p = .50).

These results do not support the hypothesis that maternal sensitivity more strongly moderates the relationship between authoritarian parenting and child cognitive development than maternal culture.

Child behaviour problems models.

Regression diagnostics revealed no major concerns regarding model assumptions (i.e., linearity, normal distribution of errors, homogeneity of variance). Diagnostic tests identified an influential outlying case with a large value of Cook's distance. Regression models were estimated with the full dataset and with the outlying case transformed to the second highest value plus one.

Using the full dataset without transforming the outlier, the interaction term in the maternal sensitivity model (i.e., Authoritarian Parenting Style × Maternal Sensitivity) was not significant, $B = 10.09$, $t(43) = 0.56$, $p = .58$, but as previously reported in Hypothesis 1, the interaction term in the maternal culture model was significant, $B = -47.33$, $t(45) = -2.62$, $p = .01$. The maternal sensitivity interaction effect was weak, $\Delta R^2 = .0059$ (Tables 22 to 23). The maternal culture interaction effect was stronger, $\Delta R^2 = .1082$.

Table 22

Results for regression of child behaviour problems on authoritarian parenting style and maternal sensitivity (EC=0, CC=1) and their interaction

Variable	*B*	*SE*(*B*)	*t*	*p*	95% CI
Authoritarian parenting style	16.93	10.21	1.66	.11	
Maternal sensitivity	-33.42	36.57	-0.91	37	
Authoritative parenting style × maternal sensitivity	10.09	17.92	0.56	.58	
Results without the interaction term					
Authoritarian parenting style	18.45	9.77	1.89	.07	
Maternal sensitivity	-13.48	9.06	-1.49	14	

With interaction: R^2 = .1992, $F(3, 43) = 3.57$, p = .02; without interaction: R^2 = .1933, $F(2, 44)$ = 5.27, p = .009.

Table 23

Results for regression of child behaviour problems on authoritarian parenting style and maternal culture (EC=0, CC=1) and their interaction

Variable	*B*	*SE*(*B*)	*t*	*p*	95% CI
Authoritarian parenting style	102.37	29.01	3.53	.0009	
Maternal culture	77.31	34.30	2.25	.03	
Authoritative parenting style × maternal culture	-47.33	18.08	-2.62	.01	
Results without the interaction term					
Authoritarian parenting style	30.22	9.59	3.15	.003	
Maternal culture	-10.02	8.43	-1.19	.24	

With interaction: R^2 = .2895, $F(3, 45) = 6.11$, p = .001; without interaction: R^2 = .1813, $F(2, 46)$ = 5.094, p = .01.

When the outlying case was transformed, the interaction effects were weak and non-significant (Authoritarian Parenting Style × Maternal Sensitivity, ΔR^2 = .0438, B = 20.74, $t(43)$ = 1.54, p = .13; Authoritarian Parenting Style × Maternal Culture, ΔR^2 = .0272, B = -17.98, $t(45)$ = -1.20, p = .24).

These results generally do not support the hypothesis that maternal sensitivity is a stronger moderator than maternal culture in the relationship between authoritarian parenting style and child behaviour problems. The interaction effects were weak for both moderators.

Hypothesis 3.

To compare the grandparent groups among CC families, three trained researchers familiar with literature on Chinese parenting approaches attempted to categorize families into two grandparent groups (grandparents with permissive caregiving approaches or grandparents with authoritarian caregiving approaches) by coding the qualitative parent interview transcripts for descriptions of grandparenting practices, approaches and beliefs. Due to the limited data in the transcripts, there was insufficient information about grandparenting practices to accurately code and categorize families into the grandparenting groups needed for the hypothesized analysis. However, to explore the general patterns within the data, a more generalized, broad coding of the transcripts was used to identify a small number of families where permissive grandparenting style was endorsed ($n = 6$). An exploratory analysis comparing this group with other families with other co-residing grandparents that did not endorse permissive grandparenting style or were unable to be categorized ($n = 11$) found no significant differences between groups on endorsement of the four different parenting styles.

A comparison of parenting styles among CC families with ($n =17$) and without co-residing grandparents ($n =13$) was conducted to highlight potential differences in these households. There were no significant differences between these families on the mother's endorsement of the four parenting styles (authoritative, without grandparents $M = 3.90$, with grandparents $M = 4.10$, $t(17) = 1.37$, $p = .19$; authoritarian, without grandparents $M = 2.03$, with grandparents $M = 2.14$, $t(17) = 0.14$, $p = .89$; permissive, without grandparents $M = 2.40$, with

grandparents $M = 2.28$, $t(17) = -1.63$, $p = .12$; Chinese, without grandparents $M = 2.70$, with grandparents $M = 2.71$, $t(16) = 0.52$, $p = .61$).

Hypothesis 4.

Scatterplots of each parenting style and acculturation to Canadian culture revealed approximately linear associations between variables. Scatterplots of the residuals by acculturation to Canada also suggested linear relationships. Among CC mothers, increased acculturation to Canadian culture was significantly positively correlated with permissive parenting style ($r(23) = .47$, $p = .02$). However, acculturation to Canadian culture was not significantly correlated with Chinese ($r = .37$, $p = .05$), authoritative ($r = .18$, $p = .40$), or authoritarian parenting styles ($r = .11$, $p = .59$). Paired dependent correlation tests ($n = 24$) found that none of the four parenting styles' correlations with acculturation to Canadian culture significantly differed from each other (Tables 24 to 25).

Table 24

Correlations between parenting styles and acculturation to Canadian culture

Parenting style	*r*
Authoritative	.18
Authoritarian	.12
Permissive	.47
Chinese	.37

Table 25

Tests of difference between correlated correlations (parenting styles and acculturation to Canadian culture)

Paired correlation	*t*	*p*
Authoritative – Authoritarian	0.19	.85
Authoritative – Permissive	-0.95	.35
Authoritative – Chinese	-0.74	.47
Authoritarian – Permissive	-1.31	.20
Authoritarian – Chinese	-1.00	.33
Permissive – Chinese	0.35	.73

These results provided some support for the hypothesis of CC families' endorsement of specific parenting styles with increased acculturation to Canadian culture. Specifically, the correlation between CC mothers' acculturation to Canadian culture and permissive parenting style was stronger than the correlations of CC mothers' acculturation to Canadian culture with the authoritative, authoritarian, and Chinese parenting styles, although the differences among these correlations were not significant.

Hypothesis 5.

Authoritative and permissive parenting styles were separately regressed onto maternal culture and life stress, resulting in two models. There were no concerns regarding collinearity in either model. Over and above the influence of life stress, the difference between EC and CC mothers' endorsement of authoritative parenting was not significant, $B = -0.21$, $t(48) = -1.72$, $p = .09$. The association between authoritative parenting style and life stress, when maternal culture was controlled, was also not significant, $B = 0.006$, $t(48) = 0.52$, $p = .61$ On ratings of permissive parenting style, over and above life stress, there was a significant difference such that CC mothers were predicted to endorse a 0.42 point higher rating of permissive parenting style than EC mothers, $B = 0.42$, $t(49) = 4.74$, $p < .001$. The association between permissive parenting style and life stress, when maternal culture was controlled, was significant, $B = 0.02$, $t(49) = 2.43$, $p = .02$.

Regression diagnostics revealed extreme Studentized residual values in both models (authoritative parenting model: $t > 3$, permissive parenting model: $t > 2.5$). The models were re-estimated with the outlying case transformed to the second highest value (or lowest if outlying in the negative direction). The outlying case in the authoritative parenting model was a different parent-child dyad from the outlying case in the permissive parenting model. For both models,

the findings were consistent with the non-transformed models. When life stress was held constant, the difference between EC and CC mothers' endorsement of authoritative parenting styles was not significant, but the difference between EC and CC mothers' ratings of permissive parenting remained significant, with CC mothers endorsing 0.43 higher rating, $B = 0.43$, $t(49) = 4.81$, $p < .001$. When maternal culture was held constant, the association between authoritative parenting style and life stress was not significant, but the association between permissive parenting style and life stress was significant, $B = 0.02$, $t(49) = 2.43$, $p = .02$.

These results partially supported the hypothesis, indicating that EC and CC mothers shared similar ratings of authoritative parenting styles. However, the maternal groups differed significantly on permissive parenting styles, with CC mothers endorsing higher permissive parenting behaviours when life stress was controlled.

Hypothesis 6.

Four models were hypothesized a priori, with each of the parenting styles regressed onto life stress, parenting stress, and their interaction. Prior to interpretation, regression diagnostics revealed overall linearity and homoscedasticity, and no evidence of extremely influential observations for all models. For the authoritative parenting style model, an outlying case with an extreme Studentized residual ($t > 3$) was identified, suggesting possible extreme discrepancy. The model was re-estimated with the outlying case transformed to the second lowest value.

Using the full dataset without transformations, the interaction terms were not significant, suggesting that the relationship between life stress and parenting style was not moderated by parenting stress (Tables 26 to 29). When the interaction term was removed from the models, parenting stress was significantly associated with each parenting style, over and above the influence of life stress. With the exception of authoritative parenting (which was associated with

decreased parenting stress), increases in parenting stress were significantly associated with increases in authoritarian, permissive, and Chinese parenting styles.

Table 26

Results for regression of authoritative parenting style on life stress and parenting stress, with and without their interaction

Variable	*B*	*SE*(*B*)	*t*	*p*	95% CI
Life stress	0.06	0.04	1.46	.15	(-0.02, 0.13)
Parenting stress	0.002	0.009	0.25	.80	(-0.02, 0.02)
Life stress x parenting stress	-0.0005	0.0004	-1.07	.29	(-0.002, 0.0005)
Results without the interaction term					
Life stress	0.02	0.01	1.38	.18	(-0.008, 0.04)
Parenting stress	-0.007	0.003	-2.31	.03	(-0.01, -0.0009)

With interaction: R^2 = .13, $F(3, 44) = 2.23$, p = .10; without interaction: R^2 = .11, $F(2, 45) = 2.77$, p = .07.

Table 27

Results for regression of authoritarian parenting style on life stress and parenting stress, with and without their interaction

Variable	*B*	*SE*(*B*)	*t*	*p*	95% CI
Life stress	0.02	0.03	0.62	.54	(-0.04, 0.07)
Parenting stress	0.02	0.007	3.25	.002	(0.008, 0.03)
Life stress x parenting stress	-0.0004	0.0003	-1.05	.30	(-0.001, 0.0003)
Results without the interaction term					
Life stress	-0.01	0.009	-1.11	.27	(-0.03, 0.008)
Parenting stress	0.01	0.002	6.69	< .001	(0.01, 0.02)

With interaction: R^2 = .53, $F(3, 45) = 16.86$, $p < .001$; without interaction: R^2 = .52, $F(2, 46) = 24.68$, $p < .001$.

Table 28

Results for regression of permissive parenting style on life stress and parenting stress, with and without their interaction

Variable	*B*	*SE*(*B*)	*t*	*p*	95% CI
Life stress	0.01	0.03	0.33	.75	(-0.05, 0.07)
Parenting stress	0.01	0.007	1.57	.12	(-0.003, 0.03)
Life stress x parenting stress	-0.0001	0.0004	-0.28	.78	(-0.0008, 0.0006)
Results without the interaction term					
Life stress	0.002	0.01	0.19	.85	(-0.02, 0.02)
Parenting stress	0.009	0.002	3.92	< .001	(0.004, 0.01)

With interaction: R^2 = .31, $F(3, 45) = 6.61$, $p < .001$; without interaction: R^2 = .30, $F(2, 46) = 10.08$, $p < .001$.

Table 29

Results for regression of Chinese parenting style on life stress and parenting stress, with and without their interaction

Variable	*B*	*SE*(*B*)	*t*	*p*	95% CI
Life stress	-0.007	0.04	-0.19	.85	(-0.08, 0.06)
Parenting stress	0.01	0.008	1.58	.12	(-0.003, 0.03)
Life stress x parenting stress	0.00006	0.0004	0.14	.89	(-0.0008, 0.0009)
Results without the interaction term					
Life stress	-0.002	0.01	-0.18	.86	(-0.03, 0.02)
Parenting stress	0.01	0.003	5.09	< .001	(0.008, 0.02)

With interaction: R^2 = .38, $F(3, 46) = 9.47$, $p < .001$; without interaction: R^2 = .38, $F(2, 47) = 14.49$, $p < .001$.

When the authoritative parenting style model was re-estimated with the outlying case transformed, the results were consistent with the non-transformed model. The interaction term remained non-significant, $t(44) = -1.07$, $p = .29$. When the interaction was removed from the model, parenting stress was significantly associated with decreased authoritative parenting style over and above the influence of life stress, $B = -0.007$, $t(45) = -2.31$, $p = .03$.

These results do not support the hypothesis of parenting stress as a moderator of the relationship between life stress and parenting style. Parenting stress was significantly associated with most parenting styles, above and beyond the effect of life stress.

Discussion

The present study contextualized parenting in immigrant Chinese Canadian (CC) families within their multiple bioecological systems and explored how the dynamic relationships within these systems might affect child development. Previous literature has paid much attention to changes to CC families post-migration in the host culture, but less consideration has been given to the macrosystemic contexts and cultural shifts that occur in their home country prior to migration that may impact parenting styles. This study addressed this gap by examining the cross-cultural differences in parenting styles and child outcomes, the relations between maternal sensitivity and parenting styles, and the multiple stressors that affect parenting. Qualitative interview data were collected to gain a better understanding of CC mothers' parenting styles and beliefs, and how the involvement of co-residing grandparents influences parenting and family functioning.

Maternal culture, parenting style and child outcomes

The first goal of this study was to explore the microsystem dynamics and any cross-cultural differences between European Canadian (EC) and CC parents' parenting styles and those styles' effects on children's developmental outcomes. In this study, contrary to the hypothesized moderation, maternal culture did not affect the relationship between parenting styles and children's outcomes, indicating that EC and CC mothers' parenting styles similarly impact their children's cognitive development and behaviours. Qualitative results related to CC mothers' value of individualization supported these findings, with many CC mothers reporting an

intentional focus on raising their children with Canadian values and fostering their Canadian-born children's individualism and autonomy. These values are more traditionally associated with EC mothers, such that they may have minimized the cultural differences between CC and EC mothers. The similarities between CC and EC parenting may also reflect larger macrosystemic influences of increased maternal education and Western parenting strategies within China (Xu et al., 2005).

With respect to children's cognitive development, authoritative, authoritarian, and permissive parenting styles did not predict child cognitive development over and above the influence of maternal culture for either maternal group. The null finding associated with authoritative parenting and cognitive development contrasts with previous research showing a positive relationship between authoritative parenting and child cognitive development (Pratt, et al., 1992). However, studies examining the relationship between parenting styles and children's cognitive development often use academic achievement measures to operationalize cognitive development (e.g., Dornbusch et al., 1987; Pratt et al., 1992; Steinberg et al, 1992), whereas in this study, a standardized, well-established cognitive developmental measure (BSID-III) was used to operationalize cognitive development. These same studies are also often done with school-aged and adolescent children, who are older than the current sample. Although these psychological outcomes are highly correlated, cognitive development and academic achievement are considered distinct constructs. This distinction may be more important for CC families, where academic achievement is a particularly valued asset in first-generation, East Asian families (Fuligni, 1997; Sue & Okazaki, 1990). It is possible that parents are less familiar with the parenting practices needed to promote infant cognitive development, which involve more abstract skills and non-directive exploration (e.g., pretend and imaginary free play, relational

play) than more concrete, goal-oriented academic skills in older children. Another consideration is that the effects of parenting on cognitive or academic skills may not be apparent until later in development (i.e., latency, adolescence). The present study's findings highlight that the association between parenting styles and infant cognitive development may uniquely differ from previous research on academic achievement in older children.

Results also showed that Chinese parenting style predicted lower child cognitive development scores, when accounting for the influence of maternal culture. For both EC and CC families, Chinese parenting style was negatively associated with child cognitive development. In an exploratory model where child cognitive development was regressed on parenting styles and maternal culture simultaneously, Chinese parenting style was also the only unique significant variable, highlighting the pervasive negative impact of Chinese parenting style (as measured by the PSDQ) on child cognitive development. Within EC families, the negative association with cognitive development is likely explained by the incongruence of the child's environment and the culturally-based parenting practices of the Chinese parenting style, akin to the results of research on parent-child acculturation gaps (Costigan & Dokis, 2006). In particular, the shaming/love withdrawal and directiveness dimensions may be especially culturally loaded with Chinese values of interdependency, training, and adherence to social norms, which for EC mothers may have negative associations of unloving and overly intrusive behaviours. This difference is supported by research showing that Chinese American parents utilize shaming approaches to show support in their parenting (Kim et al., 2013). These parenting behaviours may be perceived as particularly maladaptive for a child's cognitive development, where Western cultures have traditionally promoted more praise and child-directed exploration (Chao & Tseng, 2000; Liu et al., 2005). For example, a shame/love withdrawal item states "I tell my

child that I get embarrassed when he/she does not meet my expectations"; mothers with Western/North American cultural values may view this reaction as punitive or overly harsh, while mothers with Chinese values may see this situation as an opportunity to demonstrate humility and to orient the child to interdependency (by noting others' views of themselves).

Yet, the unanticipated findings of the negative association of Chinese parenting style and cognitive development for CC families is counter to previous research suggesting the positive benefits of cultural parenting practices for Asian American children (Zhou et al., 2012). This finding may reflect limitations in the PSDQ's operationalization of Chinese parenting style and its ability to capture the cultural bases of Chinese parenting. Although the scale items are meant to reflect Chinese parenting dimensions that are rooted in Chinese cultural socialization goals (e.g., modesty, interdependency, fostering of parental dependency and closeness), the content of the items could be interpreted as overly negative and less sensitive for capturing the cultural motivations underlying some of these parenting practices. Wu and colleagues (2002) noted that some of the PSDQ Chinese parenting style dimensions and items may appear as authoritarian parenting without consideration of the Chinese cultural grounding of the behaviours. The correlation between Chinese and authoritarian parenting styles in this study ($r = .60$, $p < .01$) supports these suggestions. For example, an item measuring the directiveness dimension, "I demand that my child does things that I want or think he/she needs to do" is rooted in a Chinese cultural value of the parent's key role in "training" (i.e., 教訓, *jiaoxun*, Chao, 1994) and solely responsible for shaping their child's development. However, the item may also reflect an overly controlling and intrusive approach when presented without cultural or situational context. The interview transcripts also provide evidence of CC mothers' reservations of Chinese parenting style dimensions, particularly those mothers who negatively viewed their childhood experiences

of being “commanded” (YPP009) and criticized by their own parents. These possible negative connotations of Chinese parenting style PSDQ items may have subsequently caused mothers to provide lower ratings on this scale.

Another consideration is that chronosystemic and acculturative influences may reflect a unique parenting style that is not captured by the PSDQ Chinese parenting style measure. The combination of generational shifts in the understanding of what constitutes Chinese parenting even within China, as well as the new adapted “cultural orientation” of CC parents, likely deviates from traditional ideas of Chinese parenting (Chen et al., 2014). It is possible that CC families may be more acculturated to Western culture such that the Chinese parenting style items are incongruent with the families’ cultural and parenting experience as a CC parent.

In terms of children’s behavioural outcomes, EC mothers’ use of authoritarian, permissive, and Chinese parenting styles had a more detrimental impact on children’s behavioural functioning than CC mothers’ use of these parenting practices. This finding is consistent with extant research on the negative impact of authoritarian and permissive parenting styles on children’s social-emotional functioning within Western populations (Querido et al., 2002; Williams et al., 2009). Notably, this is one of the first studies to show the negative impact of Chinese parenting on child behaviour problems. The negative association may mirror the negative relationship between authoritarian parenting and child behaviour problems reported in other research (Aunola & Nurmi, 2005; Miller et al., 1993). To this point, there was a strong correlation between Chinese and authoritarian parenting styles (r = .60), consistent with previous research noting this overlap in research with Chinese populations (Chao, 2001).

Both Chinese and authoritarian parenting styles were also significantly correlated with parenting stress. Parenting stress has been associated with strict discipline and decreased

nurturance (Anthony et al., 2005). As a result, parenting stress may be causing both EC and CC mothers to engage in the harsher and more critical parenting behaviours noted in authoritarian and Chinese parenting styles, which subsequently leads to increased child behaviour problems, consistent with other research on the positive relationship between parenting stress and child behaviour problems (Anthony et al., 2005; Crnic, Gaze & Hoffman, 2005).

There was some evidence, however, when an outlying case was removed, that EC and CC mothers did not differ significantly in how their parenting styles impacted their child's behaviour problems. Across both groups, authoritarian, permissive, and Chinese parenting styles were associated with increased behaviour problems. These results reflect the importance of parenting style on children's behavioural functioning regardless of maternal culture. As well, it also demonstrates that EC and CC mothers are more similar in their parenting behaviours than previously believed.

Authoritarian parenting style, sensitivity and maternal culture

The hypothesized moderating role of maternal sensitivity between authoritarian parenting and child outcomes was not supported. Neither maternal culture nor sensitivity accounted for differences in the relationship between authoritarian parenting and child outcomes. The null findings associated with maternal sensitivity as the hypothesized moderator may be related to the MBQS measure, which combines multiple dimensions of maternal sensitivity (e.g., warmth, responsiveness, attunement) into a global score, and may not fully capture the warmth and affective environment of parenting hypothesized to delineate the relationships between authoritarian parenting style and child outcomes. The MBQS items related to responsiveness and monitoring (e.g., "responds to baby's signals", "monitors baby's activities during visit") are more heavily weighted than items associated with warmth, praise, and dyadic attunement (e.g.,

"is animated when interacting with baby", "display of affect does not match baby's display of affect (e.g. smiles when baby is distressed)"). A mother who receives high ratings of responsiveness is considered to quickly respond to their child's cues, but this rating does not reflect the quality or appropriateness of that response (e.g., responding in a caring vs. punitive manner). Similarly, a high rating of monitoring means the mother supervises the child closely, but does not consider whether this supervision is intrusive or protective. The warmth and attunement dimensions are of particular interest given that they likely contribute to the "emotional climate" posited as so critical in parenting styles literature (Darling & Steinberg, 1993). Further, these sensitivity dimensions were hypothesized to moderate authoritarian parenting styles' relationship to child outcomes. Thus, a mother could be rated as very sensitive, as indicated by a high MBQS global score, but not be warm or affectively attuned to their child (while likely being responsive to the child and providing good supervision of the child's activities). The null moderating effect of maternal sensitivity may be a result of the MBQS poorly capturing this warmth, and more heavily weighting responsiveness and monitoring, which are related to authoritarian parenting style. A maternal sensitivity measure that assesses the affective dyadic environment (e.g., warmth, emotional appropriateness) may more accurately reflect how different levels of sensitivity affect the relationship between authoritarian parenting and child outcomes.

In contrast to the hypothesized moderating strength of maternal sensitivity over maternal culture, there was some evidence in the full data model that maternal culture is a stronger moderator of the association between authoritarian parenting and behaviour problems than maternal sensitivity. This finding is consistent with previous research noting that Chinese parents tend to more strongly endorse authoritarian parenting styles than Western parents (Liu &

Gao, 2010; Lansford et al., 2005; Wu et al., 2002). However, CC mothers' endorsement of authoritarian parenting appears more culturally driven than other parenting styles, making the measurement and interpretation of it more challenging. Unsurprisingly, there are mixed findings on the impact of authoritarian parenting style on CC child outcomes (Chao, 2001; Chen et al., 1997; Dornbusch et al., 1987). The present study provides further support that maternal culture may uniquely impact the effects of authoritarian parenting on child outcomes and suggests that culture may have a larger influence than other parenting factors (i.e., sensitivity) for CC families.

Nonetheless, maternal sensitivity may also differentially moderate the effects of other parenting styles' impact on child outcomes. For example, authoritative parenting styles have been found to predict child attachment behaviours, which are closely linked to sensitivity (Chen et al., 2000). High levels of permissive parenting with increased sensitivity may possibly reflect a parental warmth construct, which has been associated with positive child outcomes (Chen et al., 2000; Hipwell et al., 2008). Future research on the moderating role of sensitivity on authoritative, permissive, and Chinese parenting styles may shed more light on the "processes of influence" within parent-child relationships (Darling & Steingber, 1993).

The moderate sample size reduces the statistical power to detect weaker effects. The restricted range of the authoritarian scale, highlighted by a positive skew, a median value of 1.8 and evidence of floor effects (range of 1 to 3.11), may have also contributed to this null finding. Larger samples and studies with clinical populations, which may have higher levels of authoritarian parenting (and other parenting variables), may produce larger ranges of authoritarian scores and provide additional insights into the role of parental sensitivity and culture in authoritarian parenting.

Co-residing grandparents and mothers' parenting style

Another goal of this study was to examine the mesosystem dynamics between CC children's parents and grandparents. Notably, over half of the CC families in this study had co-residing grandparents in the home, exceeding the 40% rate in China (Goh & Kuczynski, 2010). The numbers of multigenerational households also continue to rise in Canada, further highlighting the need for continued research on the impact of having multiple caregivers on child development (Statistics Canada, 2017).

There were no significant differences in mothers' endorsement of parenting styles based on whether there were co-residing grandparents in the home, indicating that the presence of grandparents did not impact mothers' parenting preferences on average. These results align with the interview data, suggesting that mothers' and grandparents concur about parenting practices. In fact, there were also indications that grandparents follow mothers' lead in terms of parenting. This family structure is in some regards counter to the cultural principle of filial piety, where elder family members are highly respected and influential in family decision making (Luo et al., 2013). In multigenerational CC homes, the practice of mothers directing grandparents may reflect the new cultural orientation that CC families have created, a combination of Chinese and Canadian practices (i.e., Chinese cultural norm of co-residing grandparents, Canadian cultural norm of parents rather than grandparents as the prime decision makers for children), as an attempt to reconcile the cultural discontinuities experienced in immigrant families.

Further, mothers reported that grandparents were also recalibrating their parenting styles to match parents' requests. Similar to CC mothers' increased access to Canadian parenting advice, grandparents' willingness to adapt their parenting styles likely also reflects their own exposure to the overall increased Western influence of parenting information and resources

available in China (Xu et al., 2005). Exploratory results intimated that a small subset of CC grandparents engaged in permissive parenting styles, often being more lenient with grandchildren than mothers preferred. It is unclear if this permissive grandparenting style was a result of mothers asking grandparents to recalibrate and shift from more authoritarian grandparenting styles, or if mothers were hoping for grandparents to change their permissive styles into stricter, firmer grandparenting styles. Future research on grandparenting styles in multigenerational homes could highlight the dynamic transformations of grandparents' caregiving when living with their grandchildren.

The prevalence of co-residing grandparents may also reflect parents' desires to pass on traditional Chinese values to their children, which was another identified theme in the current study. Immigrant families often recruit grandparents to provide caregiving, not just for instrumental or financial support, but also to provide cultural connections and teachings to children, for example language tutoring and sharing holiday traditions (Bohr & Tse, 2009; Shih & Bohr, 2013).

Yet, a few mothers hinted at grandparent-parent conflict that led to mothers also adjusting their parenting styles. This finding may be related to the stark contrast in parenting styles that some CC mothers favoured for their own children (i.e., positive parenting approaches) compared with the harsh and strict parenting styles they received as children. Prospective longitudinal studies comparing parents' parenting style behaviours before and after grandparents move into the home would more clearly elucidate this calibration process within multigenerational homes.

Of note, CC families tended to report a significantly higher number of adults within the home, even when they were not biological grandparents (e.g., family friends, extended family), than EC families. This shared model of care among multiple caregivers, which includes

extended family, neighbours, family friends, and hired caregivers, was also reported by some mothers in qualitative interviews. While the increased number of caregivers in the home is likely motivated by cultural caregiving practices, including the importance of family continuity as reported by CC mothers, this demographic indicator may also reflect increased financial strain and stress in immigrant families and attempts to minimize housing and caregiving costs within the family (Beiser, Hou, Hyman, & Tousignant, 2002). This finding supports the need to study diverse family and caregiving structures further, particularly within Chinese and immigrant communities.

Acculturation and parenting styles

Macrosystemic influences of acculturation on parenting were explored in this study to capture some aspects of the cultural contexts of childrearing for immigrant parents. As hypothesized, CC mothers' endorsement of permissive parenting increased with increased acculturation to Canadian culture. This increased endorsement of more indulgent parenting styles in CC families is consistent with research identifying permissive parenting as more commonly found in Western contexts (Wu et al., 2002). CC mothers' adaptation and subsequent adoption of the host culture and its practices are often reflected in parenting decisions (Chen et al., 2014). In fact, in qualitative reports, CC mothers expressed choosing to raise their children with Canadian parenting practices, placing value on individualism and positive parenting approaches, which they described to be more associated with permissive approaches. Increases in permissive parenting in CC families contrast the perception of tiger mothers (e.g., Chua, 2011) and previous research (e.g., Wu et al., 2002) that has often ignored measuring permissive parenting in Chinese families, believing that Chinese parents did not engage in more indulgent or lenient parenting practices (Tam & Lam, 2006).

This study highlights the macrosystems' acculturative impacts on potential increases in permissive parenting in Chinese and immigrant Chinese families. Many mothers spoke favourably about Western parenting styles, including offering praise, encouraging individualism, and promoting autonomy. To foster these values, mothers reported wanting to parent in "opposite" ways from their authoritarian parents, which may reflect an extreme shift towards possibly permissive and indulgent parenting styles. This shift is supported by research on intergenerational parenting style discontinuities that found that generally parents are less authoritarian and more permissive in their parenting than their own parents (Campbell & Gilmore, 2007). In an attempt to provide warmer, more positive parenting styles to their children, CC mothers may engage in permissive parenting styles that are in opposition to how they were parented as children. Further, these more indulgent parenting styles are likely magnified by acculturative forces of CC parents living in a Canadian context where permissive parenting practices are more prevalent.

In addition to the socialization to Western parenting norms, the one-child policy in China may have also engendered a parenting culture that promotes increased parenting indulgence and praise as a means to highlight children's accomplishments within highly competitive contexts (Goh, 2006). Chinese families previously could rely on multiple children to support the family, but with the advent of the one-child policy, much of the family's collective success relied on one child. This has resulted in the 4-2-1 phenomenon (4 grandparents, 2 parents, 1 child), with upwards of six caregivers doting on a child (Wu, 1996). There may be significant motivation for caregivers to excessively praise and bolster children's achievements, which can be characteristic of permissive parenting, in an attempt to promote the children's success and the family's overall success. Importantly, the CC mothers in this study grew up in the era of the one-child policy,

and likely were only children themselves. As young children, they may have themselves been exposed to a parenting culture in China that was more complimentary and permissive, which subsequently influences their own parenting.

The young age of the children in this study may have also coloured CC mothers' endorsement of permissive parenting styles. Researchers have noted that Chinese cultural conceptions of child development to be distinct before and after the age of six (Chao & Tseng, 2002; Ho & Kang, 1984). Prior to the age of six, children are viewed to be too young to comprehend much. Parents are more indulgent and exceedingly attentive, placing few demands on the child. It is only after the transition to age six (school age) that Chinese parents shift their conception of the child to an "age of understanding" that is marked by harsher discipline and teaching impulse control (Chao & Tseng, 2002; Ho & Kang, 1984). For the infants and toddlers in this study, who have yet to reach the "age of understanding", their CC mothers' permissive parenting styles may reflect not only macrosystemic influences (i.e., acculturation to Western culture, one-child policy), but also traditional cultural notions of child development and parenting. Future researchers would benefit from studying permissive parenting styles with immigrant CC mothers and their young children, particularly as Chinese mothers' exposure to Western parenting resources continues.

There was a moderate correlation between acculturation to Canadian culture and Chinese parenting style (r = .37), which corresponds to the qualitative results of mothers' desires to pass on traditional Chinese values to their children, despite increased endorsement of Canadian identities and values. The simultaneous emphasis on Canadian and Chinese values captures the constant negotiation that immigrant and CC families engage in while raising bicultural children.

This childrearing goal may also play a role in having co-residing grandparents who can foster and impart traditional Chinese values to their grandchildren.

It is unclear if all CC mothers are motivated to have their children maintain their bicultural status, given their reported desire for their children to be raised with Canadian parenting approaches. Previous research suggests that children show better outcomes when their parents are more acculturated to mainstream culture because the assumption is that children are typically more acculturated to mainstream culture as well (Bornstein & Bohr, 2011; Costigan & Dokis, 2006; Kim, Chen, Li, Huang, & Moon, 2009; Lim et al., 2009). However, if CC mothers emphasize and prioritize children's acculturation to mainstream culture, and purposely choose to minimize children's Chinese identification (i.e., monocultural identity to Canada), this intentional creation of the intergenerational cultural gap may have different associated outcomes for child development because the parents are in control of the decision to create this gap. It is possible that these CC mothers are themselves already highly acculturated to Western culture, which allows them to be confident in transmitting Western culture to their children. The mean CC score in this study on the acculturation measure was 5.66 (scale item score ranging from 1 to 9), suggesting that CC mothers in this study were relatively acculturated to and not completely unfamiliar with Canadian culture. Their understanding of Canadian culture, whether through acculturative experiences post-migration and/or through increased exposure through Western media, may have increased CC mothers' comfort in teaching their children about Western cultural ideas and values. Another consideration is that less acculturated CC parents, who hold collectivist cultural values of adapting to their social environment, may be more driven to conform to Canadian values, leading to increased Canadian parenting practices. This desire may be strengthen by CC parents who view their Canadian-born children as part of the Canadian in-

group, rather than the Chinese in-group, and subsequently hope for them to be raised with Canadian values.

Although this study found nonsignificant correlations between CC mothers' acculturation to Canadian culture and authoritative or authoritarian parenting styles, extant research has noted that increased immigrant parent acculturation to mainstream culture is associated with more authoritative parenting and less authoritarian parenting, which promotes healthy child development (Yu, Cheah & Calvin, 2016; Cheah, Leung, Tahsee, & Schultz, 2009). That is, lower acculturation to Canada could be non-adaptive for children's development. As such, in this study, higher Chinese parenting style levels, potentially indicative of lower maternal acculturation to Western mainstream culture, are mismatched with children's cultural environment in Canada, which may subsequently, negatively affect their cognitive development and learning.

Parenting styles and stress

Beyond the influence of life stress, CC mothers reported significantly higher levels of permissive parenting than EC mothers. This finding is counter to the hypothesis that EC and CC mothers would share similar levels of permissive parenting. It could be argued that CC mothers' have embraced more "Western" parenting ideals which has translated into a permissive parenting style. Another consideration reflects the indulgent forms of parenting that have been noted in China within recent decades in response to the one-child policy, intimating that permissive parenting in CC mothers may not be due to increased life stress, more commonly associated with recent immigrant groups, but rather due to pre-immigration trends in families' country of origin (e.g., 4-2-1 syndrome, Wu, 1996; little emperor, Goh, 2006) (Luo et al., 2013).

Further macrosystemic examination in the study concluded that parenting stress was significantly associated with parenting style differences, over and above the influence of life stress, consistent with Su and Hynie's findings (2010). The interaction between life and parenting stress was not significant, but the results emphasized the influential role of parenting stress on parenting styles. This result falls in line with the bioecological model and the microsystem parenting stresses that are theorized to have an important impact on parenting decisions, even when other outside systems factors are considered (Bronfenbrenner, 1994; 1999).

Additionally, the associations between parenting styles and parenting stress found in this study are consistent with Deater-Deckard's (1998) hypothesis that parenting stress impacts parenting behaviours. Deater-Deckard further hypothesizes that parenting behaviours (or parenting styles, which are similarly grouped parenting behaviours) mediate the relationship between parenting stress and child outcomes. There has been some evidence supporting this parenting stress model, while other researchers have found a direct relationship between parenting stress and child outcomes (Crnic et al., 2005; Mackler et al., 2016; Putnick, Bornstein, Hendrick, Painter, & Sulwalsky, 2018). Although the current study did not examine this mediation model directly, the relationship between parenting styles and parenting stress, as well as the differential impact that specific parenting styles had on child outcomes (when accounting for maternal culture), suggests that parenting styles may mediate the associations between parenting stress and child outcomes.

The overarching findings of this study highlight that parenting in CC families, when framed within a bioecological model that accounts for the microsystemic, cultural, and sociopolitical influences, is more similar to parenting in EC families and incorporates more permissive styles of parenting than previously believed. Themes emerging from parent

interviews suggest that the reportedly more indulgent parenting styles may be attributed in part to newer preferred parenting practices in China as well as mothers' desires to parent differently from their own upbringing. In fact, over and above the influence of maternal culture, Chinese parenting style was associated with negative child outcomes in EC and CC families. Further, neither maternal sensitivity nor maternal culture moderated the relationship between authoritarian parenting style and child outcomes. The multiple stressors faced by mothers were examined, suggesting a strong relationship between parenting stress and all parenting styles. To alleviate some of these stressors, as well as to further the continuity of Chinese cultural traditions and practices, many CC mothers sought the involvement of co-residing grandparents in childrearing. Mothers described the cultural continuities and discontinuities that contributed to the multigenerational family dynamics of their homes.

Limitations and Future Directions

There are important limitations to the present study. The relatively small sample size, particularly within the context of multiple quantitative analyses, limits the generalizability of the study findings. The sample size was further reduced when examining the CC families with and without co-residing grandparents. Larger sample sizes would allow for more complex statistical analyses to understand the specific parenting processes and directionality of influence within family members (e.g., child, parent, grandparent). The small sample size reflects the multiple barriers researchers face in recruitment of immigrant populations (Waheed, Hughes-Morley, Woodham, Allen, & Bower, 2015). Asian immigrants have been reported to have many hesitations related to research mistrust, lack of social support for encouragement of participation in health research, research stigma, and concerns of unintended outcomes of the research (George, Duran, & Norris, 2014). Although this study tried to minimize some of these barriers

(e.g., researchers who spoke the same language as the participants, partnering with community agencies, verbal review of consent forms, gift card incentive, conducting home visits), there were considerable challenges in recruiting families with young infants, as these families were often juggling multiple demands.

An important goal of this study was to emphasize the diversity of experiences in Chinese Canadian families, so it is critical that the limited representativeness of the study sample be noted. This study only included mothers born in Mainland China to purposefully capture the potential sociohistorical influences of a changing China on CC parenting. This inclusion criterion was in response to suggestions of different geographical (e.g., Hong Kong, Taiwan, Mainland China, North America), and subsequently sociohistorical, variations which impact cultural Chinese parenting practices across the Chinese diaspora (Chao, 2001). Furthermore, CC mothers in this study were relatively new immigrants (living in Canada an average of 8 years). It is important to consider that the study results' generalizability is limited in its scope to first-generation Mainland Chinese immigrant mothers who have lived in Canada for a moderately short period of time. The CC mothers in the study on average also had some post-secondary education with middle incomes, similar to the EC mothers in the study. The study participants generally were well-educated, middle-class families and critically, may not be reflective of all CC mothers' experiences within the Chinese Canadian diaspora.

Further, families were recruited largely from community agencies and infant and toddler programs, which may have introduced a selection bias of motivated and interested parents. Although this recruitment method was necessary in building trust with the community and study participants, these mothers may be more invested and motivated to learn and think about their parenting practices than other parents, thereby positively skewing the study responses. It is also

possible that families who may be experiencing difficulties may be less likely to participate in community programs and consequently are less likely to participate in research studies. It is likely that recruiting more broadly, as well as with clinical populations, would provide a more accurate reflection of parenting in CC and EC communities and may result in a different pattern of findings. Future projects would benefit from developing long-term relationships and establishing trust with the community prior to recruitment to maximize participant interest.

The cognitive measure (BSID-III) was administered in children's preferred language (English or Chinese), but there are likely culturally embedded factors associated with the measure that may not be accounted for simply through changes in language of administration. Further, Chinese administration impacts the standardization of the measure. These factors possibly impact the accuracy and validity of the cognitive scores, particularly for the CC children. Future studies examining the validity and reliability of administering the BSID-III in Chinese is warranted.

Although most of the measures were validated with diverse populations, many of the measures were created in English and then subsequently translated into Chinese. As well, the measures were developed using Western ideologies, largely by North American researchers. These language and ideological factors inherently introduce specific, and likely subtle, biases which may not translate accurately into Chinese or be interpreted appropriately by CC participants. These concerns have been raised by cross-cultural researchers who highlight that there is a false sense of equivalency between an English measure and its translated version, without full consideration of culturally- and linguistically-embedded concepts that may not be captured in a translated measure (Epstein, Santo, & Guillemin, 2015; Hui & Triandis, 1985; van Widenfelt, Treffers, de Beurs, Siebelink, & Koudijs, 2005). Moreover, researchers have made

criticisms of the "othering" of non-Western cultural concepts when using measures developed by Western researchers (Nielsen, Haun, Kärtner, & Legare, 2017; Okazaki, David, & Abelmann, 2008). This common research practice inherently implies that Western cultural concepts are normative and the baseline for comparison, while other cultures are "abnormal". As a result, other dimensions or factors that may contribute to the understanding of a psychological construct may be missed or misunderstood. The evolution of parenting styles and the cross-cultural understanding of parenting in different family groups, beginning with Baumrind's typologies and the subsequent critique of their applications in different cultural groups, underlines how Western-based formulations and measurement of psychological concepts are not always representative of the phenomenology that is being studied. Future research supporting the development of culturally-specific parenting and child development measures would help address this methodological gap. Ongoing research to validate cross-cultural measures is also important in facilitating cross-cultural comparisons and understanding of psychology constructs that may be universal across groups.

Another consideration to this study is that the Chinese parenting style questionnaire items emphasize training and are more oriented towards obedience and teaching, which may not be as relevant for the younger children in this study. Parenting young infants and toddlers may involve less directive and more responsive parenting, akin to parenting sensitivity, consistent with the "emotional climate" description of parenting styles (Darling & Steinberg, 1993). These contexts may not be fully captured in the Chinese parenting style items, which are more behaviourally based in parenting practices and less focused on the emotional processes involved in caring for younger children. Future research focusing on the measurement of both emotional and

behavioural aspects of parenting styles in infants and toddlers would provide a better understanding of the "emotional climate" of a young child's development.

Previous researchers have commented on the weak to moderate reliability of the permissive parenting scale in Chinese populations (Chen et al., 1997; Ren & Pope Edwards, 2017; Wu et al., 2002). The permissive parenting scale in this study also had limited internal consistency. The modest psychometric properties of the permissive scale should be considered when interpreting the results, particularly as they relate to CC families. The study findings of the ongoing increases in more indulgent parenting practices within China highlight the need for future research on CC-specific manifestations of permissive parenting and development of valid measures to capture this culturally embedded parenting style.

This study combined internalizing and externalizing behaviour problems into one overall measure of behavioural problems. There is some evidence suggesting that Chinese children are reported by parents to show higher internalizing and lower externalizing behaviours in young childhood (Liu et al., 2011; Yang, Soong, Chiang, & Chen, 2000). Further research into how parenting styles differentially impact internalizing and externalizing behaviours may shed light on specific intervention targets in parenting programs.

With the exception of one outlying case, the children in this study showed a small range of behaviour problems, which limits the variability within the sample and may subsequently attenuate the magnitude of the regression coefficients. Restricted range of behavioural problems is not uncommon in community-based samples (Garralda & Bailey, 1988). There have also been suggestions of CC parents' tendency to underreport their children' behaviour problems (Fung & Lau, 2010; Woo et al., 2007). Future studies with clinical and larger samples may illuminate the possible differential impact of Chinese parenting on behaviour problems.

Parenting stress was significantly associated with parenting styles, suggesting that future research on parenting style as a mediator between parenting stress and child outcomes is warranted. Furthermore, Neece, Green, and Baked (2012) have found a bidirectional relationship between parenting stress and child outcomes, and that these variables changed over time. In contrast, some parenting behaviours (sensitive and stimulating parenting) remain relatively stable over time (Dallaire & Weinraub, 2005). It is likely possible that a child with increased externalizing behaviours may increase parents' stress levels, but perhaps sensitive parenting may mitigate some of these maladaptive concerns. Longitudinal studies examining the transactional and dynamic nature of parenting stress, parenting style, and child outcomes would shed light on the complex interplay of these variables and provide a comprehensive examination of the multiple systems in Bronfenbrenner's model (i.e., microsystem, mesosystem, and chronosystem).

There were insufficient data to understand grandparents own parenting style preferences and how they interact with mothers' parenting styles. Further, the limited available data on grandparenting in the study was reported through mothers, which introduces additional subjectivity and bias. Unfortunately, it was out of the scope of this current research project to collect data from grandparents directly due limited research resources, as well as practical considerations. The addition of grandparent measures and interview would have further lengthened an already long research protocol. Previous research with grandparents has noted that elderly participants often require additional time to complete questionnaire measures (Shih & Bohr, 2013). This would have placed a large burden on families' time and resources, especially because most of the research visits were held in participants' homes. In light of the difficulty in

recruiting parents and children into the current protocol, it was decided that adding to the study's length and increasing the number of adults needed to participate per family was not feasible.

Additionally, this study focused solely on mothers and their parenting, but recent research noting the decline of the traditional role of the "stern father" in Chinese families (i.e., "panda fathers", Xie & Li, 2017) suggests that fathers' parenting styles are also changing and warrant further investigation. In addition, interactions between the gender pairings of caregivers and their children may differentially influence the parenting styles that parents utilize and the impacts they have on children's outcomes. In one of her earlier studies, Baumrind (1973) reported that girls who received authoritarian parenting styles were found to be more assertive, but this effect was not found for boys. Further consideration of the interactions of parents living with their own parents or their in-laws likely also contribute to the caregiving context and dynamics of parenting. Future research measuring the multiple parenting styles that a child is exposed to within the home, including grandparents and fathers, and the interpersonal relationship dynamics amongst caregivers, would illuminate the mechanisms and processes with which caregivers respond to other caregivers' parenting and re-calibrate their own parenting styles. Data collection would be strengthened to incorporate multiple sources of information including caregiver report and observational measures. This information would allow for a holistic examination of the childrearing context that a young child is exposed to and how this context impacts child outcomes.

Implications for Clinical Practice

Despite multiple limitations, this study's findings have specific implications for the understanding of parenting styles in CC family contexts. The study illuminates the multiple

aspects of immigrant families' child rearing practices, including the macro- and chrono-systemic changes that may have taken place in parents' country of origin prior to immigrating.

CC and EC mothers were more similar in some aspects than previous literature has suggested, but there was evidence that CC mothers' unique cultural orientations and integration of different parenting styles are still separate and distinct from traditional Western parenting practices. Interventions aimed at immigrant mothers may need to be updated to reflect the macrosystemic changes within China and take into consideration the previous exposure they have already had to Western parenting concepts. It may be beneficial for future parenting interventions to focus on gathering information about CC mother's perceptions of Western parenting and to provide clarifying, more specific strategies about healthy parenting behaviours and styles (e.g., clarifying what the opposite of authoritarian parenting is and that it is different from permissive parenting). Multiple CC mothers expressed interest in parenting books and resources, suggesting that online materials and community brochures would be effective tools for promoting healthy parenting strategies.

Maternal sensitivity did not moderate the relationship between authoritarian parenting style and child outcomes, suggesting that it continues to be unclear whether authoritarian parenting practices are appropriate and optimal for CC children. There continue to be mixed findings about the role of authoritarian parenting styles in Chinese families and clinicians are cautioned to not encourage authoritarian parenting practices for CC families.

One notable finding was the negative association between Chinese parenting styles and child outcomes, providing further evidence of the potential negative consequences of acculturative parent-child gaps as early as the infancy years. Although CC mothers expressed

active interest in Canadian parenting strategies, early childhood clinicians are encouraged to be mindful of parent-child acculturative levels and to help support bridging these gaps.

This study also adds to the growing body of research showing the increasing prevalence of grandparental caregiving and the critical role that grandparents play in children's lives (Goh & Kuczynski, 2010; Shih & Bohr, 2013). CC grandparents were reported to be willing and flexible caregivers, open to adapting and modifying their parenting styles in line with parents' Canadian values. Clinical programs are encouraged to include immigrant grandparents within assessments and interventions and to explore how they can be supported in adapting their parenting styles. Education and interventions on communication between parents and grandparents about childrearing and parenting may also be beneficial for Canada's growing multigenerational households. Further to this point, the Canadian government continues to offer the Parent and Grandparent Super Visa program, established in 2012, which many immigrant grandparents access. The program allows successful applicants to stay in Canada for up to two years per visit and is valid for up to 10 years. It will be important for appropriate services and resources to be provided to support the large influx of grandparents and other family members who live for extended periods with families and take on multiple child rearing responsibilities.

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Appendix A: Measures

PSDQ

Please rate how often you exhibit this behaviour with your child (or grandchild).
请标出您对您的孩子（或孙子）表现以下行为的经常性

		I exhibit this behaviour:				
		Never 从不	*Once in a while 偶尔*	*About half of the time 有一半的时候*	*Very often 经常*	*Always 总是*
1	I encourage my child to talk about his/her troubles. 我会鼓励我的孩子讲述他所遇到的麻烦	1	2	3	4	5
2	I guide my child with punishment more than by reason. 我通常通过惩罚来引导孩子，很少和他们讲道理	1	2	3	4	5
3	I know the names of my child's friends. 我知道我孩子朋友们的名字	1	2	3	4	5
4	I find it difficult to discipline my child. 我觉得管教孩子很困难	1	2	3	4	5
5	I give praise when my child is good. 当我的孩子表现得好时，我会给予称赞	1	2	3	4	5
6	I spank my child when he/she is disobedient. 孩子不听话时，我会打孩子	1	2	3	4	5
7	I joke and play with my child. 我会和孩子开玩笑，一起玩闹	1	2	3	4	5
8	I do not scold or criticize my child even when he/she acts against my wishes. 即使孩子做了违反我意愿的事，我仍然不会责骂或批评他们	1	2	3	4	5
9	I show sympathy when my child is hurt or frustrated. 当孩子受伤，或感到挫败时，我会表现出很同情	1	2	3	4	5
10	I punish my child by taking away privileges with little, if any, explanations. 我以不让他做平时可以做的事的方式惩罚孩子时，通常不做或少做解释	1	2	3	4	5
11	I spoil my child. 我溺爱我的孩子	1	2	3	4	5
12	I give comfort and understanding when my child is upset. 当我孩子难过时，我会提供安慰以及表示理解	1	2	3	4	5
		从不	有时	有一半的	经常	总是

				时候		
13	I yell or shout when my child misbehaves. 当我孩子行为不当时，我会大叫大嚷	1	2	3	4	5
14	I am easygoing and relaxed with my child. 我对我的孩子很随和，很自在	1	2	3	4	5
15	I allow my child to annoy someone else. 我允许我的孩子去打搅或烦别人	1	2	3	4	5
16	I tell my child about his/her behaviour expectations before he/she does an activity. 我会在孩子做活动前，告诉他被期待做出怎样的行为	1	2	3	4	5
17	I scold and criticize my child to make him/her improve. 我通过批评以及责骂的方式来让我的孩子提高	1	2	3	4	5
18	I show patience with my child. 我对我的孩子有耐心	1	2	3	4	5
19	I grab my child when he/she is being disobedient. 孩子不听话时，我会双手抓住他，让他面对我	1	2	3	4	5
20	I state punishments to my child but do not actually do them. 我会说要惩罚我的孩子，但从来没有执行过	1	2	3	4	5
21	I respond promptly to my child's needs or feelings. 我对我孩子的需求以及感受能够做出及时应对	1	2	3	4	5
22	I allow my child to contribute to making family rules. 我允许我的孩子参与家庭规则制定	1	2	3	4	5
23	I argue with my child. 我会和孩子进行争吵	1	2	3	4	5
24	I appear confident about my parenting abilities 我对自己抚育孩子的能力有自信	1	2	3	4	5
25	I explain to my child why rules should be obeyed. 我会向我的孩子解释为什么要遵守规则	1	2	3	4	5
26	I appear to be more concerned with my own feelings than with child's feelings. 和孩子的感受相比较，我表现得更重视自己的感受	1	2	3	4	5
27	I tell my child that I appreciate what he/she tries to do or accomplish. 我会告诉我的孩子我很感激他试图做的，或已经完成的事。	1	2	3	4	5
		从不	有时	有一半的时候	经常	总是
28	I punish my child by putting him/her off somewhere alone with little, if any, explanations.	1	2	3	4	5

	在我通过把孩子一个人留在一个地方作为惩罚时，我通常不做解释，或做很少解释					
29	I help my child to understand the impact of behavior by encouraging our child to talk about the consequences of his/her own action. 我鼓励我的孩子去讲述他行为的后果，来让他了解他行为的影响	1	2	3	4	5

30	I am afraid that disciplining my child for misbehavior will cause him/her to dislike me. 我担心处罚我孩子的行为会让他讨厌我	1	2	3	4	5
31	I take my child's desires into account before asking him/her to do something. 在要求他们做事之前，我会考虑他们的心愿	1	2	3	4	5
32	I express strong anger toward my child. 我会对我的孩子表达我强烈的愤怒	1	2	3	4	5
33	I am aware of problems or concerns about my child at school. 我了解或关心我孩子在学校遇到的问题	1	2	3	4	5
34	I threaten my child with punishment more often than actually giving it. 我经常威胁要对我的孩子进行处罚， 但我很少实际做出处罚	1	2	3	4	5
35	I express affection to my child by hugging, kissing, and holding my child. 我通过拥抱以及亲吻表达我对孩子的喜爱	1	2	3	4	5
36	I ignore my child's misbehavior. 我会无视孩子的不当的行为	1	2	3	4	5
37	I use physical punishment (spanking, grabbing, pushing, slapping) as a way of disciplining my child. 我用体罚教导孩子（打，揪住，推搡，扇巴掌）	1	2	3	4	5
38	I carry out discipline immediately after my child misbehaves. 当我孩子做错时，我会马上立即进行训导	1	2	3	4	5
39	I apologize to my child when I make a mistake. 当我犯错时，我会向我的孩子道歉	1	2	3	4	5
40	I tell my child what to do. 我会告诉我的孩子该如何做事	1	2	3	4	5

41	I give in to my child when he/she causes a commotion about something. For example, in the grocery store or at someone's house. 当我的孩子在公众场合引起骚乱时，我会对他的需求进行妥协， 例如，在店铺里，或别人家里	1	2	3	4	5
42	I talk over my child's misbehaviours with him/her. 我会和孩子讨论他的不当行为	1	2	3	4	5
43	I slap my child when he/she misbehaves. 当我的孩子做错时，我会打他	1	2	3	4	5
44	I disagree with my child. 我和我的孩子意见不统一	1	2	3	4	5
45	I allow my child to interrupt others. 我允许我的孩子去打断别人	1	2	3	4	5
46	I have warm and intimate times with my child. 我和孩子有很温暖以及亲密的时候	1	2	3	4	5
47	When two children are fighting, I discipline my child first and ask questions later. 当两个小孩打架时，我会先训导我的孩子，然后再问问题	1	2	3	4	5
48	I encourage my child to freely express himself/herself even when disagreeing with me. 当我的孩子和我意见不统一时，我鼓励我的孩子去自由的表达他的想法	1	2	3	4	5
49	I use rewards or treats or favours to get my child to obey. 我会用奖励或小恩惠去让我的孩子听话	1	2	3	4	5
50	I scold or criticize my child when his/her behaviour does not meet my expectations. 当我的孩子的行为不能达到我的期望时，我会责骂或批评他	1	2	3	4	5
51	I encourage my child to express his/her own opinions. 我鼓励我的孩子去表达他自己的想法	1	2	3	4	5
52	I set strict, well-established rules for my child. 我有给我的孩子设立严格的，坚定的条规	1	2	3	4	5
53	I explain to my child how I feel about his/her good and bad behaviour. 我会向我的孩子解释我对他好或不好行为的感受	1	2	3	4	5

54	I use threats as punishment with little or no justification. 我用威胁作为惩罚时，通常没有或很少有正当理由	1	2	3	4	5
		从不	有时	有一半的时候	经常	总是如此
55	I think about my child's preferences in making plans for the family. 制作家庭计划时，我会考虑我孩子的偏好	1	2	3	4	5

Please rate how often you exhibit this behaviour with your child.

		I exhibit this behaviour:				
		从不	*有时*	*有一半的时候*	*经常*	*总是*
56	When my child asks why he/she has to obey, I tell him/her, "Because I said so" or "Because I am your parent and I want you to" 当我孩子问他为什么非要服从时，我会告诉他"因为这是我说的"或"因为我是你的家长，并且我要你这样做"	1	2	3	4	5
57	I am unsure how to solve my child's misbehavior. 我不太知道如何才能解决我孩子的行为不当	1	2	3	4	5
58	I explain to my child the consequences of his/her misbehavior. 我会向我的孩子解释他行为不当的后果	1	2	3	4	5
59	I demand that my child do things. 我会要求我的孩子去做事情	1	2	3	4	5
60	I redirect my child's misbehavior into an activity that is more acceptable. 我会对我孩子不良的行为引导，让其变成一个能令他人接受的行为	1	2	3	4	5
61	I shove my child when he/she is disobedient. 当我孩子不听话时，我会推搡他	1	2	3	4	5
62	I emphasize the reasons for rules. 我会强调规则背后的原因	1	2	3	4	5
63	I discourage my child from strongly expressing his/her point of view around others.	1	2	3	4	5

	我不鼓励我的孩子在他人面前强烈表达自己的观点					
64	I supervise all of my child's activities. 我监督我孩子所有的活动	1	2	3	4	5
65	I overly worry about my child getting hurt. 我过度担心我的孩子会受伤	1	2	3	4	5
		从不	有时	有一半的时候	经常	总是如此
66	I discourage my child from showing off his/her skills or knowledge to get attention. 我不鼓励我的孩子通过炫耀他的技能或知识来赢得他人的注意	1	2	3	4	5
67	I tell my child that I get embarrassed when he/she does not meet my expectations. 我会告诉我的孩子，如果他不能达到我的期望，我会很窘迫	1	2	3	4	5
68	I discourage my child from proudly acknowledging compliments or praise from friends or adults. 我不鼓励我的孩子夸耀其他朋友或他人对他进行的赞赏	1	2	3	4	5
69	I make my child feel guilty when he/she does not meet my expectations. 如果我的孩子无法达到我的期望，我会让他感到内疚	1	2	3	4	5
70	I tell my child that he/she should be ashamed when he/she misbehaves. 我告诉我的孩子，如果他行为不当，他应该为此感到羞愧	1	2	3	4	5
71	I expect my child to be close by when playing. 我期望我的孩子能够在离我进的地方玩	1	2	3	4	5
72	I demand that my child does things that I want or think he/she needs to do. 我要去我的孩子去做我想或我认为他应该去做的事	1	2	3	4	5
73	I am less friendly with my child if he/she does not see things my way. 当我的孩子和我意见相左时，我会变得对他不是那么的友好	1	2	3	4	5
74	I scold or criticize when my child's behavior doesn't meet	1	2	3	4	5

	my expectations. 当我的孩子不能达到我的期望时，我会责骂或批评他					
75	I discourage my child from appearing overconfident to others about his/her abilities 我不鼓励我的孩子在他人面前对自己的能力表现得过分自信	1	2	3	4	5
	请标出以下描述中符合您感受程度的数字	*从不*	*偶尔*	*有一半的时候*	*经常*	*总是*
76	Mothers primarily express love by helping their children succeed, especially in school. 母亲基本上是通过帮助孩子们成功来表达自己对他们的爱，尤其是学校方面	1	2	3	4	5
77	A mother's sole interest is in taking care of her children. 照顾孩子是一名母亲唯一的兴趣所在	1	2	3	4	5
78	Children should be in the constant care of their mothers or family. 孩子应该得到母亲或家人始终如一的照顾	1	2	3	4	5
79	Mothers should do everything for their children's education and make many sacrifices. 母亲应该为孩子的教育做任何事，以及做出很多牺牲	1	2	3	4	5

Vancouver Index of Acculturation (VIA)

Please circle *one* of the numbers to the right of each question to indicate your degree of agreement or disagreement.

Many of these questions will refer to your *heritage culture*, meaning the original culture of your family (other than American). It may be the culture of your birth, the culture in which you have been raised, or any culture in your family background. If there are several, pick the one that has influenced you *most* (e.g. Irish, Chinese, Mexican, African). If you do not feel that you have been influenced by any other culture, please name a culture that influenced previous generations of your family.

Your heritage culture is: _____

		Disagree								Agree
1.	I often participate in my *heritage* cultural traditions.	1	2	3	4	5	6	7	8	9
2.	I often participate in mainstream North American cultural traditions.	1	2	3	4	5	6	7	8	9
3.	I would be willing to marry a person from my heritage culture.	1	2	3	4	5	6	7	8	9
4.	I would be willing to marry a North American person.	1	2	3	4	5	6	7	8	9
5.	I enjoy social activities with people from the same heritage culture as myself.	1	2	3	4	5	6	7	8	9
6.	I enjoy social activities with typical North American people.	1	2	3	4	5	6	7	8	9
7.	I am comfortable interacting with people of the same heritage culture as myself.	1	2	3	4	5	6	7	8	9
8.	I am comfortable interacting with typical North American people.	1	2	3	4	5	6	7	8	9
9.	I enjoy entertainment (e.g. movies, music) from my heritage culture.	1	2	3	4	5	6	7	8	9
10.	I enjoy North American entertainment (e.g. movies, music).	1	2	3	4	5	6	7	8	9
11.	I often behave in ways that are typical of my heritage culture.	1	2	3	4	5	6	7	8	9
12.	I often behave in ways that are 'typically North American'.	1	2	3	4	5	6	7	8	9
13.	It is important for me to maintain or develop the practices of my heritage culture.	1	2	3	4	5	6	7	8	9
14.	It is important for me to maintain or develop North American cultural practices.	1	2	3	4	5	6	7	8	9
15.	I believe in the values of my heritage culture.	1	2	3	4	5	6	7	8	9
16.	I believe in mainstream North American values.	1	2	3	4	5	6	7	8	9
17.	I enjoy the jokes and humor of my heritage culture.	1	2	3	4	5	6	7	8	9
18.	I enjoy typical North American jokes and humor.	1	2	3	4	5	6	7	8	9
19.	I am interested in having friends from my heritage culture.	1	2	3	4	5	6	7	8	9
20.	I am interested in having North American friends.	1	2	3	4	5	6	7	8	9

MBQS Items

1. Provides B with little opportunity to contribute to the interaction (formerly 1)
2. Monitors Bs activities during visit (formerly 2)
3. Speaks to B directly (formerly 10)
4. Repeats words carefully and slowly to B as if teaching meaning or labelling an activity or object (formerly 11)
5. Content and pace of interactions are set by M rather than according to Bs responses (formerly 17)
6. Appears to tune out and not notice bids for attention (formerly 22)
7. Arranges her location so she can perceive Bs signals (formerly 24)
8. Responds to Bs distress and non-distress signals even when engaged in some other activity such as having a conversation with the visitor (formerly 27)
9. Interactions with B characterized by active physical manipulation (formerly 30)
10. Non-synchronous interactions with B i.e. the timing of Ms behaviour out of phase with Bs behaviour (formerly 32)
11. Interactions revolve around Bs tempo and current state (formerly 34)
12. During ongoing interactions, misses slow down or back off signals from B. (formerly 16)
13. Is animated when interacting with B (formerly 43)
14. Realistic expectations regarding Bs self-control of affect (formerly 44)
15. Praises B (formerly 45)
16. Points to and identifies interesting things in Bs environment (formerly 48)
17. Able to accept B's behaviour even if it is not consistent with her wishes (formerly 55)
18. Scolds or criticizes B (formerly 60)
19. Responds to Bs signals (formerly 65)
20. Builds on the focus of Bs attention (formerly 71)
21. Notices when B smiles and vocalizes (formerly 72)
22. Plays social games with B (formerly 78)
23. Distressed by Bs demands (formerly 79)
24. Display of affect does not match Bs display of affect (e.g. smiles when B is distressed) (formerly 84)
25. Actively opposes B's wishes (formerly 87)

Perceived Stress Scale

The questions in this scale ask you about your feelings and thoughts during the last month. In each case, you will be asked to indicate by circling how often you felt or thought a certain way.

0 = Never 1 = Almost Never 2 = Sometimes 3 = Fairly Often 4 = Very Often

1. In the last month, how often have you been upset
because of something that happened unexpectedly?..... 0 1 2 3 4

2. In the last month, how often have you felt that you were unable
to control the important things in your life? 0 1 2 3 4

3. In the last month, how often have you felt nervous and “stressed”? 0 1 2 3 4

4. In the last month, how often have you felt confident about your ability
to handle your personal problems? 0 1 2 3 4

5. In the last month, how often have you felt that things
were going your way?..... 0 1 2 3 4

6. In the last month, how often have you found that you could not cope
with all the things that you had to do? 0 1 2 3 4

7. In the last month, how often have you been able
to control irritations in your life?..... 0 1 2 3 4

8. In the last month, how often have you felt that you were on top of things?.. 0 1 2 3 4

9. In the last month, how often have you been angered
because of things that were outside of your control?..... 0 1 2 3 4

10. In the last month, how often have you felt difficulties
were piling up so high that you could not overcome them? 0 1 2 3 4

Semi-Structured Interview Questions

1. Now I'd like to ask you to choose 5 adjectives or words to describe your child.
    a) Why did you choose those words?

2. What does it mean to you to be a good parent?
    a) What characteristics do you think you possess that make you a good parent?
    c) What does it mean to you to be a sensitive caregiver?
    b) Is it important to you to be sensitive, reflective, understanding, and warm towards your child? Is this emphasized in your family? Is this emphasized in your culture? (If North American, in mainstream culture?)

3. Are there other caregivers who assist/have assisted in the caregiving of your child?
    a) What role and responsibilities does this person have in caregiving?
    b) Are there differences between the way you and the other caregivers parent your child? Do these differences affect how you parent your child? If so, what are some examples of how these differences impact your parenting?
    c) Do you parent differently when the other caregivers are not in the home?

4. Earlier, you completed a questionnaire that asked you some questions regarding difficult life experiences that can have a lasting effect (e.g. death of a loved one, exposure to violence). Have any of these experiences affected the way that you parent your child?

5. How would you describe your relationships with your parents as a young child?
    a) Did your experiences as a child influence how you parent today?
    b) What forms of discipline did you receive as a child?
    c) What impact did that have on your use of discipline with your own child?
    d) (if there are grandparents in the home) Do the grandparents parent your child the same way they parented you as a young child?