Exploring mismatches between adolescent perceptions and ideals of parenting in Chinese Canadian families: Cross-cultural and cultural perspectives

By

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Bachelor of Arts, University of Western Ontario, 2012

A Thesis Submitted in Partial Fulfillment of the
Requirements for the Degree of

MASTER OF SCIENCE

in the Department of Psychology

Supervisory Committee

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Abstract

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Using cross-cultural and cultural perspectives, this thesis investigated ideals of parenting and the relations between parenting mismatches and youth adjustment in a sample of adolescents from Chinese immigrant families and Canadian non-immigrant families. Asian traditional parenting techniques have been linked to both positive and negative outcomes in Asian immigrant youth. This study sought to clarify these mixed findings by focusing on adolescent interpretations of parenting, specifically their opinions of how parents *should* behave, which is referred to as parenting ideals. Parental behaviours of warmth, reasoning, monitoring, and harsh discipline were investigated. Results indicated that adolescents from Chinese immigrant families and Canadian adolescents desired similar levels of these parenting behaviours from their fathers and mothers, with the exception of harsh discipline behaviours. Amongst Chinese adolescents, some findings supported the hypothesis that cultural orientation is related to parenting ideals. Parenting mismatches, or discrepancies between actual and ideal parenting, were hypothesized to be related to more depressive symptoms and lower self-esteem. Findings supported this hypothesis in the dimensions of parental warmth and monitoring, but not reasoning. Low endorsement of perceptions, ideals, and mismatches in harsh discipline precluded strong conclusions about this parenting dimension. Directions for future research and implications for parent education and clinical settings were discussed.

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Acknowledgments

First and foremost, I would like to thank my supervisor, Dr. Cathy Costigan, for her guidance and expertise throughout my thesis. I am truly grateful her support and encouragement. Thank you for always rooting for me!

Thank you to my committee member, Dr. Marion Ehrenberg, for lending her time and insightful comments to my project.

I am lucky to have such smart and kind lab mates, Joelle and Sheena, in the Intercultural Family Studies lab. Thank you for tirelessly listening to my presentations and offering generous encouragement and insightful feedback.

Thank you to my parents for their continued support throughout my educational pursuits. A heartfelt thank you to my partner for coming across the country with me for the journey. Finally, big hugs to my friends, cohort, and my cousin who is like a sister, for bringing joy and laughter in commiserations and celebrations.

Dedication

To Adam, who brewed me countless mugs of tea and hot chocolate (made the therapeutic way) and cheered me on throughout these past few years. What would I do without you?

Exploring mismatches between adolescent perceptions and ideals of parenting in Chinese Canadian families: Cross-cultural and cultural perspectives

Introduction

Canada has one of the highest proportions of foreign born individuals in the world, with over half of immigrants originating from Asia including the Middle East (Statistics Canada, 2014). Recent immigrants are relatively young (Statistics Canada, 2011) and are at the life stage of having and raising children. In fact, a third of recent immigrants were under the age of 25 (Statistics Canada, 2011). Therefore, it is crucial to adopt a family-focused approach in the study of immigrant populations. Upon moving to a new and often unfamiliar country, families are faced with challenges in multiple life domains. Parents must navigate a new cultural environment while simultaneously working to raise their children to be successful and psychologically well-adjusted.

The parent-child relationship is an important vehicle through which parents influence youth development and adjustment (Maccoby, 1980). A central component of family functioning and the parent-child relationship is parenting. Immigrant parenting, particularly in families that have migrated from an Asian country to a Western country, has been subject to growing research attention. Cross-cultural approaches that compare and contrast Asian and Western traditional parenting styles have generally concluded that Asian parenting is characterized by behaviours that have been associated with youth maladjustment in Western societies (S. Y. Kim & Wong, 2002). Consistently, many studies on Asian immigrant populations have found "negative" parenting behaviours, in particular authoritarian practices, to be related to negative youth outcomes in multiple domains such as depressive and anxiety symptoms and poorer academic outcomes (S. Y. Kim & Ge, 2000; S. Y. Kim, Wang, Orozco-Lapray, Shen, & Murturza, 2013).

There is, however, also evidence that such parenting behaviours are not detrimental to all immigrant offspring. For example, in a study of Chinese American youth, J. J. Fung and Lau (2009) found that punitive parenting was not always associated with high levels of internalizing and externalizing symptoms; instead, the correlates of punitive parenting varied depending on the parenting ideologies (i.e., shaming versus training) behind punishments. Furthermore, the effects of parental control on Asian children are unclear. Lim and Lim (2003) discuss the importance of differentiating between different types of control as they may each have distinct relationships with child outcomes. For example, Chao and Aque (2009) factor analyzed parental control and found three distinct aspects: Strictness, providing structure, and psychological control. In their sample of diverse Asian ethnic groups, strictness and psychological control were found to be significantly associated with adolescent internalizing symptoms whereas providing structure was not. Moreover, contributing to the diversity in documented relations between parenting among Asian immigrants and adolescent outcomes, it has been found that parenting techniques that are valued in individualistic societies (i.e., authoritative parenting) are not beneficial for all immigrant adolescents from collectivistic backgrounds (Chao, 2001).

In this thesis, I evaluate the hypothesis that adolescent interpretations of parenting behaviours may help to explain the mixed findings. The diversity in expectations youth hold for parental behaviours may be one of the reasons why uniform relations between Asian parenting and youth outcomes have not been found. For example, immigrant adolescents who attribute control to parents' love and good intentions may be less likely to exhibit maladjustment in response to parental control, as they may interpret controlling behaviour as beneficial in the long run. On the contrary, immigrant adolescents who exhibit maladjustment in response to parental control may interpret controlling behaviour as parents' desire to restrict their autonomy and

disregard for their independence and individuality. Differences in adolescent interpretations of parenting may be driven by acculturation factors, specifically cultural orientation. Youth who are strongly oriented to their Asian heritage cultural values may appreciate, expect, and benefit from Asian parenting behaviours. On the other hand, those who are strongly acculturated to mainstream Western culture may resent parents who adhere to Asian parenting practices.

A limitation of research on Asian immigrant parenting is that much of it has been parent-centric, focusing on types of Asian parenting behaviours, how they are implemented, the cultural beliefs that guide them (Chao, 1994), and their associations with child outcomes (e.g., Qin, 2008). While many of these studies have depended on adolescent reports of parenting, they have not explored the adolescent perspective in depth. Looking at the parenting-adolescent adjustment links from an adolescent point of view has the potential to add much richness to our understanding of these issues. Relatively recently, researchers have begun to focus on Asian immigrant adolescents' perceptions and interpretations of parenting (Camras et al., 2012; Chao & Aque, 2009; Lam, 2003) and their ability to predict youth outcomes compared to parent-reported parenting (Abar, Jackson, Colby, & Barnett, 2015). However, adolescents' expectations, standards, and wishes of parenting behaviours have not been explored adequately. In this study, adolescents' preferred levels of parenting behaviours (i.e., how much *should* a parent endorse certain behaviours) will be referred to as parenting ideals. Adolescent's ideals, versus perceptions of actual parenting, may be equally important to consider and may be highly relevant to their adjustment.

In the current research, I investigate the links between parenting ideals and adjustment in Chinese Canadian and Canadian non-immigrant youth. Specifically, I look at matches and mismatches between adolescent ideals and perceptions of parenting using both cross-cultural and

within-group approaches. First, I identify cross-cultural differences and similarities between Chinese Canadian immigrant and Canadian non-immigrant adolescents' parenting ideals. Then, I investigate within-group differences in Chinese Canadian adolescent parenting ideals based on immigration factors and cultural orientation. Finally, I explore how mismatches between adolescents' ideals and perceptions of various parenting behaviours might be related to adolescent adjustment in multiple domains and the role of culture in these relationships.

Chinese and Western Traditional Parenting

It has been well established in the literature that Chinese and Western traditional cultural views on best parenting practices differ. While parents' goals and motivations underlying various parenting behaviours are meant to raise successful children in both cultures, there are differences in the cultural values and beliefs that guide them, thus rendering the behavioural manifestations of Chinese parenting divergent from Western parenting.

Traditionally, Chinese parenting has been rooted in Confucian philosophies (Chao & Tseng, 2002). In an extensive review of Asian American parenting, S. Y. Kim and Wong (2002) summarized cultural beliefs and norms about the roles of parents and children. Chinese parents assume the role of teachers, tasked with the responsibility of deliberately educating their offspring to become competent adults, as opposed to the more passive Western idea of letting children learn from mistakes. This is based on a belief that humans do not learn unless intentionally taught. Thus, Chinese children assume the role of students and are expected to learn from their parents. The teacher and student roles lend themselves naturally to a hierarchical structure within the family that is central to filial piety, another major value of Chinese family structure (Sung, 1998). Those lower in the hierarchy (children) are expected to respect, obey, defer to, and submit to those who are higher in the hierarchy (parents) in all situations. Parents

are to be feared, and children are expected to be disciplined at all times and to behave solemnly (S. Y. Kim & Wong, 2002). These parenting practices, too, sit at odds with the popular notion of parents and children as friends in Western societies.

Whereas optimal Western child rearing practices are guided by values of fostering independence, Chinese parenting practices are guided by goals of governance and training. Chao (1994) discussed the notions of *chiao shun* (child training) and *guan* (to govern) as central to Chinese parenting and noted that training is synonymous to child rearing. Parents, particularly mothers, are required to be highly involved in their children's lives, supporting them through school and monitoring them closely to correct inappropriate behaviours. In order to fulfill the responsibilities of a parent as a teacher, parents are required to have a high degree of surveillance and control over children's lives. This is opposite from Western standards that encourage parents to allow their children to make their own choices and experience their consequences.

The divergence between cultural beliefs about the parent-child relationship corresponds to cultural differences in what constitutes as best parenting practices documented in the literature. In Western cultures, Baumrind's (2013) authoritative parenting style characterized by parental reasoning, monitoring, warmth, and autonomy granting is considered optimal for youth development. This has been strongly supported by research evidence linking authoritative parenting and positive outcomes such as higher self-esteem, life satisfaction, and happiness (Raboteg-Saric & Sakic, 2014), higher psychosocial and academic competence, lower internalized distress, fewer problem behaviours over time (Steinberg, Lamborn, Darling, Mounts, & Dornbusch, 1994), and better family functioning such as fewer parent-child conflicts (Sorkhabi & Middaugh, 2014). On the other hand, authoritarian parenting is discouraged in Western cultures. Authoritarian parenting is linked to higher youth anxiety sensitivity (Erozkan,

2012), internalized distress (Steinberg et al., 1994) and more family conflicts (Sorkhabi & Middaugh, 2014). Similarly, among European American adolescents, behaviours such as parental psychological control has been linked to increases in teenagers' internalizing and externalizing symptoms over time (Lansford, Laird, Pettit, Bates, & Dodge, 2014).

Parental Control

Contrary to Western parenting beliefs, the paragon of Chinese cultural parenting resembles the authoritarian style that is characterized by autonomy restriction and lack of inductive reasoning and warmth. Asian cultural beliefs dictate that in order to maintain authority status, parents must be feared (S. Y. Kim & Wong, 2002). In order to ensure children's obedience and respect for parents, harsh parenting and surveillance are deemed appropriate and necessary. Correspondingly, a body of research shows that immigrant parents of Asian descent endorse authoritarian parenting more than European American and Canadian parents (Lim & Lim, 2003; Mah & Johnston, 2012). To increase youth's motivations to comply with Confucian expectations of filial piety and to maintain an honourable family reputation, Taiwanese parents use shaming techniques which consist of criticism of children, threats of abandonment, and negative social comparison (H. Fung, 1999 as cited in J. J. Fung & Lau, 2009). When children are young, Chinese parents tend to stay very close to them to manage their behaviours (S. Y. Kim & Wong, 2002). In adolescence, this degree of control may be manifested as minimal autonomy granting and high levels of psychological control. Reviews have found that Asian American parents are more controlling and restrictive of their children than their European American counterparts (Chao & Tseng, 2002; S. Y. Kim & Wong, 2002). Additionally, Asian immigrant parents have been found to be more coercive than European American parents (S. Y. Kim & Wong, 2002). However, while control behaviours resemble those observed in Western

populations, the cultural meanings of such techniques differ. Measures of parental control are more strongly related to parental hostility and domination in Western cultures than in Chinese cultures in which the relation is weak. In fact, parental control has been found to be associated with parental warmth in some East Asian cultures (Chao & Tseng, 2002).

Parental Warmth

There is a common misconception that Chinese parents do not exhibit warmth or love to their children. S. Y. Kim and Wong's (2002) review of Asian American parenting reveals why this is not surprising, given traditional Chinese beliefs that showing too much affection to older children may spoil them and lead them to have less respect and fear for their parents. Older children are not praised for fear that they would believe they are good enough and lose motivation for self-improvement (S. Y. Kim & Wong, 2002). In qualitative interviews conducted by Paiva (2008), South Asian mothers of young children living in Britain reported that while they were currently quite liberal in providing positive responses to their young children, they would be cautious in continuing to do so in several years' time for fear of instilling a sense of unwarranted pride thereby spoiling their children's character.

In a review of parental warmth in Asian and Asian American populations, Lim and Lim (2003) noted a sizeable literature showing that Asian American parents tend to score lower on measures of parental warmth than European American parents. However, this does not necessarily mean that Chinese parent-child relationships are void of love. Some research shows no differences between ratings of warmth by Chinese parents in China and Chinese immigrant parents in Western countries. This may be due to cultural differences in the definition and expression of warmth. Indeed, ethnographic approaches have yielded insight on the expression of warmth and love within Chinese traditions. Chao (2000, as cited in Lim & Lim, 2003) suggests

that in Chinese cultures warmth is expressed implicitly and through actions whereas in Western cultures love is overtly expressed through physical and verbal means. As mentioned earlier, parental control and governance have been traditionally synonymous with expressions of care and concern (Chao & Tseng, 2002). Similarly, research suggests that parental warmth and support are intertwined in Asian cultures. Chao and Kaeochinda (2010) sampled a group of Chinese and Filipino American youth and found that parental support was a two-factor construct. Specifically, parental support was characterized by both parental acceptance (resembling Western definitions of warmth) and parental sacrifices made for children. Other findings from Chinese families suggest that parental warmth can be separated into two dimensions: physical warmth which refers to actions to ensure children's physical well-being, and material warmth, which refers to actions to ensure children's material needs are met (Wang & Chang, 2010). Note that both categories of warmth represent instrumental *actions* that are born out of love rather than explicit *expressions* of love.

Evolution of Chinese Culture

Although there is strong support for cultural differences between Asian and Western cultures in culturally sanctioned parenting styles, evidence suggests that these differences may be decreasing. In a review of contemporary trends in parenting in Chinese societies, Chuang (2009) reported that Chinese and Chinese Canadian parenting have been evolving such that the influence of Confucian values has been decreasing over time. In a study of Taiwanese Canadian mothers of six to eight year old children, Chuang (2006) found that mothers resolved parent-child conflict through negotiations and even by conceding to children, contradicting traditional Chinese expectations of total child obedience. Hierarchies within families are eroding, shown by findings that increasing proportions of Chinese men believe that men and women should be

equally responsible for household chores (Chuang, 2009). Chinese fathers have also have reported higher levels of involvement in their children's lives than traditional value systems would predict, countering traditional Chinese views that fathers' roles in the family are restricted to breadwinner. Chuang and Su's (2008) study of Chinese fathers of toddlers in China and in Canada showed that fathers' conceptualizations of their role as parents was multi-dimensional, expanding beyond roles as economic providers but also including roles as caregivers and playmates. Additionally, fathers in both countries did not endorse roles as disciplinarians. Notably, this literature has been restricted to families with young children and therefore findings are not generalizable to fathers of adolescents.

Chinese cultural norms are also changing. According to Chuang (2009), as Chinese society has become increasingly market-focused, values of codependence and cooperation are not prized to the same degree as they previously were because they are not conducive to success in increasingly competitive environments. Children have been increasingly encouraged to be independent and assertive. For example, in Chuang's (2006) study of Taiwanese Canadian families, mothers encouraged children to make their own decisions rather than following a Chinese traditional approach in which parents would make decisions for children. However, one aspect of parenting does not appear to have changed over time, and that is the focus on academic achievement (Chuang, 2009).

Despite the appeal of the evidence suggesting that Chinese parenting is becoming more similar to Western parenting, it is important to interpret it with caution. Fathers in Chuang and Su's (2008) study were highly educated with at least one university degree, who likely represent only a minor proportion of Chinese fathers. Thus, their conclusions of changing roles of Chinese fathers may not be generalizable to the population. The observed trends toward diversified roles

should also not be overstated. Additionally, changes in cultural norms do not occur rapidly and likely transpire over generations. Highly educated individuals likely have more access to Western ideas of individualism, which may contribute to diversified views of parental roles. Individuals who have primary and secondary education only may not have the same exposure to these values, thus, changes in parenting beliefs may occur at a much slower rate. This is corroborated by findings that Chinese immigrant parenting is distinct from both Chinese parenting in China and Western parenting in host countries, serving as an intermediate between the two cultures. For example, Chinese Canadian fathers were found to be responsible for more caregiving duties than Mainland Chinese fathers (Chuang, 2013), and studies almost always report significant differences between Chinese immigrant and Western parenting. Thus, a complete cultural shift has not occurred. As much as Chinese parenting may change and evolve over time toward Western parenting norms, it may not change to such a degree that Chinese parents will completely assimilate to Western parenting values and completely shun Chinese traditional values. Confucian parental goals and traditional Chinese parenting behaviours are still endorsed by immigrant parents, even if Western parental goals are simultaneously endorsed (Padmawidjaja, & Chao, 2010). Therefore, while cultural differences between Asian and Western parenting beliefs and behaviours are declining, they still very much exist and the implications of these differences continue to be relevant in contemporary society.

Links between Asian Parenting and Immigrant Adolescent Outcomes

Indigenous forms of parenting may be functional and optimal for families residing within their heritage culture and society. However, the same parenting behaviours may not be contextually appropriate when brought into another society whose cultural values differ greatly from the heritage culture. For example, Chinese values of obedience and social hierarchies vastly

differ from Western values of independence and equality. These divergent cultural values in turn shape culturally sanctioned parenting styles and behaviours. The Chinese notion of training sits at odds with Western parenting approaches that are more democratic (Chao, 1994).

Research on links between Asian parenting behaviours and immigrant adolescent outcomes generally find that the use of indigenous parenting styles in non-indigenous cultural contexts contribute to youth maladjustment. The prominent hypothesis within this view predicts relations between parenting behaviours such as strong parental control and low expressive warmth (that are typical in Asian cultures) and youth maladaptive outcomes within Asian immigrant populations. However, there exist mixed findings in the literature regarding how Asian immigrant adolescents fare in a Western society when they are raised by parents whose parenting is strongly grounded in Asian cultural beliefs and values.

Expected Links

On one hand, a body of research on links between various parenting behaviours and adolescent outcomes finds that Asian immigrant and European American adolescents exhibit similar outcomes when raised with similar parenting techniques. With respect to psychological well-being, Chinese American parents who used lower levels of inductive reasoning and monitoring and higher levels of harsh punishment (i.e., authoritarian parenting) had adolescents who reported higher levels of depressive symptoms (S. Y. Kim & Ge, 2000) and more conduct problems (Liu, Lau, Chen, Dinh, & Kim, 2009) than parents with the reverse pattern of parenting. Analogously, Chinese immigrant adolescents have been found to benefit from an authoritative parenting style. Chinese American adolescents in Liew and colleagues' (2014) study reported higher levels of emotion regulation and adaptive skills when their parents provided autonomy support (Liew, Kwok, Chang, Chang, & Yeh, 2014).

In other Asian cultural groups, Asian Indian second-generation adolescents living in the United States who had parents who strongly endorsed shaming beliefs had greater levels of anxiety and lower self-esteem than those whose parents weakly endorsed shaming beliefs (Farver, Xu, Bhadha, Narang, & Lieber, 2007). Vietnamese American adolescents who perceived their fathers as authoritarian reported lower levels of self-esteem and higher levels of depressive symptoms than those who perceived their fathers as authoritative (Nguyen, 2008). Korean American early adolescents who perceived their parents to be rejecting and behaviourally controlling exhibited lower self-esteem, self-adequacy, and higher levels of dependence, hostility, emotional unresponsiveness, and emotional instability compared to those who perceived their parents to be accepting (E. Kim, Cain, & McCubbin, 2006).

Research has also focused on youth academic outcomes. In a longitudinal study of tiger parenting, S. Y. Kim and colleagues (2013) assessed Chinese American families on measures of positive (warmth, inductive reasoning, monitoring, democratic parenting) and negative (hostility, shaming, psychological control, punitive parenting) parenting dimensions (S. Y. Kim et al., 2013). Four parenting profiles emerged: (1) supportive parenting (high levels of positive and low levels of negative parenting); (2) tiger parenting (high levels of both positive and negative parenting); (3) harsh parenting (low levels of positive and high levels of negative parenting); and (4) easygoing parenting (low levels of both positive and negative parenting). Supportive parenting was associated with the lowest levels of adolescent academic pressure and highest academic achievement and educational attainment. Children of tiger parents reported the highest levels of academic pressure and had outcomes similar or worse than children of harsh parents.

Unexpected Links

On the other hand, there exist findings in the literature showing that Chinese cultural parenting techniques are not necessarily linked to detrimental effects on immigrant adolescents living in a Western society. In a secondary analysis of data from the National Longitudinal Survey of Children and Youth, Ho, Bluestein, and Jenkins (2008) took a cross-cultural comparative approach and categorized Canadian families into several cultural groups including South Asian, East Asian, and European Canadian groups. Results revealed that for European Canadian families, parental harshness was, as expected, associated with increased teacher-reported child aggression. However, for South Asian Canadian families, higher levels of parental harshness were associated with *lower* levels of child aggression. For East Asian families, the relationship between harshness and parent-rated child aggression was positive but significantly weaker than in European Canadian families. Similarly, in a sample of Chinese American families with early to late adolescent children, J. J. Fung and Lau (2009) found that not all children of parents who used physical and verbal punishment exhibited higher levels of internalizing and externalizing behaviours. Instead, parenting ideologies were significant moderators in the relationship between punitive parenting and behaviour problems. Specifically, adolescents whose parents strived to instil discipline and proper conduct (i.e., training ideology) in their children and used punitive parenting techniques to do so had significantly lower levels of internalizing and externalizing than those whose parents' goals were to instil interpersonal sensitivity and shame (i.e., shaming ideology) (J. J. Fung & Lau, 2009).

Moreover, authoritative parenting may not be beneficial for all immigrant adolescents. Chao (2001) asked a sample of Chinese and European American high school students to rate their parents on measures of involvement/acceptance and strictness/supervision. Results revealed

the expected positive associations between authoritative practices (high strictness/supervision and high involvement/acceptance) and academic outcomes in the European American group, but they did not emerge as clearly for the Chinese American group. For second-generation Chinese American adolescents, the relationship between authoritative parenting and school outcomes was significant and positive but weaker than in the European American group. For first-generation Chinese American students, authoritative parenting and school outcomes were not significantly related. Additionally, Chinese students with authoritative parents did not have significantly better school grades than those with authoritarian parents.

A large proportion of published studies on Asian immigrant parenting have used cross-sectional designs or have only reported cross-sectional findings. It is important to continue to build upon cross-sectional studies and explore the longitudinal effects of Asian immigrant parenting on offspring outcomes. Lam's (2003) study suggests that particular Asian parenting styles may confer benefits to offspring not during adolescence, as observed in studies reviewed above, but later in life. She interviewed Chinese Canadian parents and adolescents aged 16 to 21 and observed controlling behaviours she termed "covert control." Adolescents retrospectively recalled perceiving their parents' preferences for their academic and career pursuits, which were conveyed to them in skillful, tactical, and logical ways. For example, instead of directly instructing their child that they must pursue university education, parents may tell their children that if one desires good career prospects in an increasingly competitive world, post-secondary education is mandatory. Parents also used these techniques to direct their children away from aspirations that were undesired by parents. Adolescents reported being unhappy about being firmly guided towards paths they did not necessarily desire but also rationalized their parents' behaviours, ascribing them to Chinese cultural values of parental care and wisdom. Eventually,

some children came to develop a passion for the career paths their parents chose, whether directly or indirectly, for them. Though Lam (2003) did not obtain data about adolescent psychological well-being, it is possible that offspring come to appreciate their parents' efforts during adolescence and subsequently come to terms emotionally with the controlling parenting they received.

Overall, the mixed associations between Asian immigrant parenting behaviours and positive and negative adolescent outcomes require clarification. In the following sections, I propose that focusing on the adolescent perspective and considering acculturation-related factors will help to make sense of the contradictions in the literature.

The Role of Cultural Orientation

Since there exist differences between Chinese and Western cultural parenting beliefs, values, and styles, there may also exist differences in adolescent ideals of parenting based on culture and cultural orientation. I propose that there are both cross-cultural differences between immigrant and non-immigrant adolescent parenting ideals as well as within-culture differences among Chinese immigrant adolescents' parenting ideals.

With respect to cultural group differences, I propose that adolescents in immigrant Chinese and non-immigrant Canadian families will differ in their desired levels of parenting behaviours based on the differences in Chinese and Canadian cultural parenting traditions, values, and norms. Only a few studies, conducted by Wu and Chao (2005; 2011), have examined parenting ideals across cultures. Although Wu and Chao (2005; 2011) found no cultural differences between Chinese immigrant and non-immigrant European American adolescent ideals of parental warmth and parent-child open communication, these samples have consisted of mostly second-generation adolescents and first-generation adolescents who have lived in the

Western country for a long time. Adolescents from immigrant families may have strongly acculturated to Western values thereby decreasing the variability in parenting ideals. Therefore, their findings may not be generalized to first-generation children who are recent immigrants. Additionally, the cultural differences and similarities between adolescent ideals of other parenting behaviours such as reasoning, monitoring, and harsh discipline have not yet been investigated.

The possibility of differences between first-generation and non-immigrant adolescent parenting ideals suggests that there may also exist within-group differences in Chinese immigrant adolescent parenting ideals, specifically between first- (those who immigrated after the age of 6), 1.5- (those who immigrated before the age of 6), and second-generation Canadian-born youth. Chao's (2001) study demonstrated the importance of differentiating between first- and second-generation children as there are likely systematic differences in acculturation between these two groups. First-generation Chinese immigrant adolescents who are relatively new to Canada may prefer a set of parenting behaviours that resemble Chinese traditional parenting strategies while 1.5-generation and second-generation Chinese adolescents may prefer parenting behaviours that are consistent with Western cultural values of autonomy and independence as observed in the literature (e.g., Wu & Chao, 2005; Wu & Chao, 2011). These differences may reflect differences in acculturation amongst youth of different generational statuses. A more nuanced test of within-group differences in parenting ideals is to assess cultural orientation across multiple domains.

According to Berry's (2006) bidimensional theory of acculturation, individuals undergo a process of cultural change upon immigration and exposure to a different culture. Individuals may experience changes in the strengths of their orientations towards heritage and mainstream

cultures as they navigate their new cultural environment and come into contact with people in the mainstream society. Measures of acculturation such as the Asian American Multidimensional Acculturation Scale (Gim Chung, Kim & Abreu, 2004), Siunn-Lew Asian Self-Identity Acculturation Scale (Suinn, Ahuna, & Khoo, 1992), Vancouver Index of Acculturation (Ryder, Alden, & Paulhus, 2000), and the Acculturation Rating Scale for Mexican Americans (Cuéllar, Arnold, & Maldonado, 1995) all include multiple domains such as cultural identity, cultural knowledge, media use, language use, food preferences, and participation in cultural communities. Given that acculturation may occur in numerous aspects of life, I predict that children's parenting ideals, too, may evolve in conjunction with their cultural orientations across domains. Thus, adolescents who are strongly oriented to Chinese culture may also subscribe to a Chinese cultural view on ideal parenting, whereas adolescents who are strongly oriented to Western culture may prefer a set of parenting behaviours that are in line with Western cultural norms.

Adolescent parenting ideals may also be shaped by social processes and environmental factors that parallel psychological processes (e.g., acculturation). Youth's ideas of how parents should behave toward their children and their evaluations of how their own parents interact with them may be influenced by what they observe in their peers. In Festinger's (1954) theory of social comparison processes, he proposed that humans have an innate need to evaluate and appraise the accuracy of their opinions and that people first tend to seek objective standards to compare against before choosing to compare with other people. When objective standards of what is acceptable and unacceptable are not available, which is often, if not always, the case with respect to subjective opinions, individuals will turn to social targets for comparison. The crux of Festinger's (1954) theory articulates processes that guide how individuals choose other people as

comparison targets. He hypothesized that of all the possible social targets around an individual, one is more likely to compare oneself with similar others. Thus, people are more likely to compare themselves with someone who has similar opinions and abilities to their own. Erickson (1988) further theorized that standards used to gauge similarity extends beyond opinions and abilities to any domain that is salient. Comparison targets tend to be peers or near peers (Shaw & Costanzo, 1982; Suls & Wheeler, 2012). This may be especially true for adolescents as they are traversing a developmental stage during which peers become increasingly salient and important and fitting in with the group is increasingly desired (Brown & Larson, 2009). Immigrant adolescents, particularly visible minorities, may be even more attentive to differences between themselves and their White Caucasian peers due to overt differences in physical appearance. However, when peers or near peers are viewed as too dissimilar to oneself, Festinger (1954) proposed that individuals would cease efforts to compare.

In the process of identity development, immigrant adolescents yearn to evaluate their views and their lives and to figure out whether their opinions are acceptable and in line with those of their peers. In the context of immigrant parenting, adolescents may be unsure of the extent to which they agree with the ways in which they are treated by their parents. To form their views, they may turn toward the youth in their immediate social environment and determine peer attitudes towards parenting behaviours through observations of peers' interactions with their parents. Following the theory of social comparison, the perceived similarity between immigrant adolescents and different peers should determine the chosen comparison targets. Immigrant adolescents who are strongly oriented toward the host culture may perceive more similarities in opinions and abilities between themselves and youth from the mainstream cultural background than peers from their ethnic background. For example, a Chinese Canadian adolescent may see

himself as very similar to a White Caucasian peer because they both play on the school basketball team, love to eat cold sandwiches, and speak English fluently. The same adolescent may perceive himself as dissimilar to a fellow Chinese Canadian peer who goes straight home after school, dislikes cold sandwiches, and prefers Chinese over English. Thus, the first adolescent is more likely to look toward his White Caucasian peer to assess his views on parenting. On the other hand, a Chinese Canadian adolescent who is highly enculturated in Chinese traditions may turn her attention to other highly enculturated Chinese Canadian peers if they are present in her social circle.

As cultural orientation shifts, choices of comparison targets will shift as well. Thus, the adolescent who gradually becomes less enculturated in Chinese cultural traditions and more interested and engrossed in Canadian cultural practices may begin to shun Chinese peers and instead seek Caucasian peers for friendship and as targets for comparison. Festinger's (1954) theory suggests that they may even strive to become more similar to their Caucasian peers, with the hope of fitting in with her desired social group.

The adolescents in the examples above employed behaviours and language skills as standards of comparison. Other factors that may affect perceptions of similarity include the degree of exposure and strength of the ties between immigrant adolescents and their comparison targets (Erickson, 1988). Erickson (1988) stated that "influence [does] not come from strangers." According to the homophily principle, similar individuals congregate together (McPherson, Smith-Lovin, & Cook, 2001). Adolescents who perceive a high degree of similarity with comparison targets are more likely to form social connections with them and to become part of one social network while non-similar adolescents are less likely to maintain social ties. The more frequently an adolescent is exposed to and interacts with a target, the more accurately he can

interpret the target's beliefs and the more opportunity for the adolescent to witness the accuracy or appropriateness of the target's beliefs. Indeed, research has shown that members of the same social network exert influence on the opinions of other members in the network. For example, in Burkhardt's (1994) study of office employees who were recently forced to use computers in the workplace, attitudes toward technology use were influenced by direct interactions with co-workers. Similarly, in a study of adolescent girls, Mueller and colleagues found that overweight girls who were surrounded, in their school environment, by other overweight girls who were trying to lose weight were also more likely to engage in weight control activities (Mueller, Pearson, Muller, Frank, & Turner, 2010). Though this study only measured changes in behaviours, it is possible that girls' opinions about the need to lose weight were influenced by comparisons with female classmates who had similar body shapes. Other research has also shown that simply having strong social ties with a target (e.g., as a best friend) is linked to having similar attitudes (Erickson, 2008).

Determining one's parenting ideals based on peer attitudes is likely a process that occurs implicitly rather than explicitly. That is, adolescents are unlikely to overtly ask their peers how their parents interact with them and their opinions about it. Nor is it likely that their peers would spontaneously and explicitly talk about their opinions about the parenting they receive (unless they are strongly dissatisfied, in which case conversations may be complaining in nature). Rather, immigrant youth may learn about their peers' attitudes through observation of their peers' family interactions and peer reactions toward parenting behaviours. For example, observing an act of parental warmth such as hugging and saying "I love you" when saying goodbye and seeing this act happily reciprocated by a Canadian peer may indicate to a Chinese adolescent that his Canadian friend has positive attitudes toward physical and verbal expressions

of parental love. When the Chinese adolescent returns home and notes to himself that his parents have never hugged him or verbally expressed their love for him, he may wonder why this is the case and may gradually yearn for such behaviours from his parents.

For some adolescents, culture and cultural differences (and similarities) may be especially salient and may be the basis of deciding which peers are similar. Thus, some Chinese Canadian adolescents may choose comparison targets based on cultural identity. Those who strongly feel that they are "Canadians" may be more likely to choose peers they perceive as Canadian, whether they are White Caucasians or other Chinese peers who act "Canadian." Those who identify as "Chinese Canadian" may choose fellow Chinese Canadians as comparison targets. In addition to observing peer views of parenting to develop their own opinions, adolescents' parenting ideals may also be influenced by corresponding cultural norms. In a study of bicultural undergraduate students in Hong Kong, Zou and colleagues (2009) manipulated the salience of either Chinese or Western culture using three variables on a letter explaining the study. The letters differed in language (English or Chinese), experimenter's names (a Chinese or English last name) and university affiliation (a Chinese or an American university). In a subsequent rating task, participants who were primed toward Chinese culture made judgements that were guided by Chinese cultural norms and those who were primed toward Western culture made judgements that were in line with Western cultural norms. With respect to parenting ideals, adolescents who feel strongly Canadian may be more likely to make their judgements about parenting behaviours based on Western cultural norms and those who feel strongly Chinese may be more likely to judge parenting behaviours against Chinese traditional parenting norms.

Mismatches between Adolescent Perceived and Ideal Parenting

Past research has mostly portrayed adolescents as passive recipients of parenting. The process of parenting and its effects on adolescents has been narrowly defined, such that parents are viewed as agents who impose treatments (i.e., in the form of parenting behaviours) on their children. Youth, in turn, are conceptualized as beings who are shaped by parental behaviours (Peterson & Bush, 2015). Studies using such conceptualizations of parenting draw conclusions that particular parenting behaviours are good or bad for children. These unidirectional linear models of parental influences on children have been criticized as being too deterministic and erroneously based on assumptions that parents and children are unequally agentic, such that parents are active while children are passive (Kuczynski & De Mol, 2015). More recent approaches have qualified these conclusions by taking into account individual differences such as culture (e.g., parental control is more beneficial for Asian immigrant adolescents than for White Caucasian adolescents) but still consider adolescents as passive recipients of parental behaviours.

On the other hand, proponents of transactional models of family interactions conceptualize child development as the result of interplays between dynamic processes amongst family members (Kuczynzki & De Mol, 2015; Sameroff, 2009). Such conceptualizations are more reflective of the complexities of real life social interactions and influence. Thus, while parents may exert influences on youth functioning, children themselves also contribute to their own well-being through their interpretations and responses to parenting behaviours. I propose that adolescents are active agents who evaluate parental behaviours and that the result of this evaluation process determines whether parents' behaviours will have positive or negative effects on adolescent adjustment.

Crick and Dodge's (1994) model of social information-processing depicts steps that children take when evaluating social information. They proposed that children encode internal and external social cues that are relevant to social situations they have encountered and interpret these cues based on various factors such as the meaning of the situation to themselves in the past and present, the causal intent of individuals involved in the situation, and social scripts, schemata, and knowledge (Crick & Dodge, 1994). Applying this framework to adolescents' processing of parenting behaviours, when interpreting and evaluating whether their parents' behaviours are reasonable and acceptable, adolescents may take into account their own standards and desires for parenting. Thus, adolescents may actively compare perceived parental behaviours against their parenting ideals. This comparison process then influences whether parenting is experienced as "too much," "too little," or "just right." A study of native Swedish adolescents living in Sweden found that youth who had controlling parents endorsed feelings of feeling over-controlled which in turn was related to higher levels of internalizing and externalizing problems (Kakihara, Tilton-Weaver, Kerr, & Stattin, 2010). Although they did not explicitly measure adolescent ideals of parental control, endorsing feelings of being over-controlled implies that adolescents have processed social information and have judged their parents' behaviours against some standard in order to arrive at a conclusion that they are *over*-controlled. This also implies that there is a mismatch between their standards for parental control and the actual amount of control what they receive.

Immigrant adolescents may undergo similar processes when evaluating their parents' behaviours against standards that they have formed in part through social comparison. Consider a 15-year-old Chinese Canadian adolescent, Brian, whose parent adamantly insists he come home immediately after school to do homework every day. Only after he finishes his homework is he

allowed to have leisure time. Brian's social group consists of four European Canadians whose parents allow them to play sports for one to two hours after school after which they are expected to return home to do homework. Through observations of his peers' families, Brian may have internalized desires for a similar system. When his parent gets angry that he did not come home immediately after school, he may subsequently evaluate his parent's anger and controlling style as unacceptable. This mismatch between parenting behaviours and parenting ideals would subsequently result in feelings of anger and resentment, which may contribute to eventual development of depressive symptoms. On the contrary, if Brian has friends whose parents also require them to go straight home after school, he may internalize these parenting standards. When his parent reiterates or praises him for coming straight home after school, this behaviour would be interpreted as in line with his expectations and subsequently he would not perceive a problem with his parent's expectations. Therefore, it may be the fit between parenting and adolescent characteristics that is more predictive of adolescent outcomes than parenting behaviours alone.

Taking the adolescent perspective and looking at adolescents' perceived and ideal parenting styles may provide insight regarding the contradictory relationships between parenting and adolescent outcomes among youth from Asian families in the literature. Although no known studies have explicitly applied social information processing models to parenting in immigrant families, findings in the literature are consistent with this theoretical explanation.

A few research teams have studied discrepancies between perceptions and ideals in the context of immigrant families. In Wu and Chao's (2005; 2011) studies mentioned previously, they investigated Chinese American and European American adolescents' perceptions and ideals of parental warmth and parent-child open communication. Their earlier study focused only on

parental warmth and they found that while both cultural groups experienced discrepancies, Chinese American adolescents experienced more discrepancies than European American youth (Wu & Chao, 2005). On average, adolescents desired higher levels of warmth than parents provided. With respect to links to adjustment, results showed that Chinese adolescents who reported discrepancies were more likely to have more externalizing symptoms than European American youth. Additionally, for Chinese adolescents but not European American adolescents, as discrepancies in parental warmth increased, internalizing symptoms increased as well. Interestingly, for the small proportion of Chinese adolescents but not European American adolescents who reported receiving more warmth than their ideal level, discrepancies were related to decreased levels of maladjustment.

Wu and Chao's later study investigated perceptions and ideals of both parental warmth and parent-child open communication (Wu & Chao, 2011). The results revealed that second-generation adolescents reported the highest level of discrepancies, followed by first-generation adolescents with the second-highest level, and European American adolescents with the lowest level of discrepancies (Wu & Chao, 2011). The association between discrepancies in parental warmth and negative outcomes were replicated. Furthermore, this association was found to be strongest for second-generation adolescents. However, contrary to predictions, discrepancies in perceptions and ideals of parent-child open communication were not related to internalizing and externalizing symptoms. The authors proposed that this may be due to the possibility that adolescents in both cultures may attribute discrepancies in open-communication as normative in parent-child relationships while doubts about parents' genuine love is more emotionally damaging. In general, Wu and Chao's (2005; 2011) studies support the notion that some

parenting mismatches are related to adolescent outcomes above and beyond actual levels of parenting behaviours.

Camras and colleagues (2012) took a different but analogous approach and focused on adolescent approval and disapproval of authoritarian parenting in a sample of sixth, seventh, and eighth graders. Approval and disapproval of parenting behaviours parallel the concept of parenting ideals in the current study. Behaviours with high approval indicates those behaviours are part of one's parenting ideals whereas behaviours with low approval are not a part of those ideals. Participants in Camras and colleagues' study rated their approval of parenting behaviours (ideal parenting) and then rated their parents on coercive authority assertion behaviours (perceived parenting). Both Chinese and American adolescents showed low approval ratings for parental coercive authority assertion but believed their parents' authoritarianism stemmed from parents' wishes to benefit their children. Coercive authority assertion was related to higher levels of youth antisocial behaviour for both Chinese and American groups and to greater depression in Chinese youth only. However, approval and beneficial interpretations of coercive authority assertion emerged as moderators in the relationship between authoritarian parenting and child depressive symptoms (Camras et al., 2012). That is, although many adolescents did not believe how their parents treated them was satisfactory, their interpretation that parental behaviours were meant for their own good and their approval of such parenting behaviours appeared to be protective against depressive symptoms for both Chinese and American youth.

Together, these studies highlight the importance of adolescent interpretations of parenting behaviours and standards of how parents should interact with children. The findings suggest that adolescents suffer negative consequences when they experience discrepancies between perceptions and opinions about certain parenting behaviours. While perceived levels of parenting

remained significantly related to adolescent outcomes in Camras and colleagues' study, introducing children's interpretations of parenting as a variable was incrementally meaningful as it helped to better explain relationships between parenting and youth outcomes.
Thus, discrepancies between perceived parenting and parenting ideals may be more strongly related to and more predictive of adolescent adjustment than levels of parenting behaviours alone.

Discrepancies between parenting perceptions and ideals may be more damaging for adolescents from immigrant families compared to adolescents from non-immigrant families. Canadian non-immigrant adolescents may attribute mismatches between parenting perceptions and ideals as part of a normal process of growing up. If parenting mismatches are expected and are perceived to be experienced in majority of all families, adolescents may be less likely to pay excessive attention to and ruminate about the mismatches. Chinese Canadian adolescents may also attribute mismatches as normative, but they may also additionally perceive them as originating from cultural dissonance with their parents (Wu & Chao, 2011). The latter may be perceived as abnormal. Youth from immigrant families may resent the idea that youth from non-immigrant families do not experience cultural dissonance and wish that they did not have to experience these internal conflicts. Therefore, because of perceptions of abnormality, resentment, rumination, and self-pity may ensue in Chinese Canadian youth. Thus, the added influence of parent-child cultural dissonance may compound the negative consequences associated with mismatches between parenting ideals and perceived parenting (Wu & Chao, 2011).

Research Objectives and Hypotheses

In the current study, I delve deeper into the immigrant adolescent experience in the parent-child context. This research expands on existing literature by investigating mismatches

between perceptions and ideals in numerous parenting behaviours, some of which have not been explored in the context of mismatches, and how they might be related to youth adjustment in multiple domains. Specifically, I focus on parenting behaviours of warmth, reasoning, monitoring, and harsh discipline. With respect to adolescent outcomes, I focus on depressive symptoms and self-esteem. Youth depressive symptoms have been most reliably linked to parenting behaviours compared to other outcome variables such as externalizing behaviours (e.g., Camras et al., 2012). Internalizing symptoms may also be the most relevant to internal experiences of mismatches between youth parenting perceptions and ideals. The positively framed outcome of self-esteem is included so that altogether, an investigation can be conducted to examine whether mismatches between parenting ideals and perceptions are associated with two forms of maladjustment: the presence of negative outcomes (i.e., depressive symptoms), and the absence of positive outcomes (i.e., self-esteem).

I analyze data from the Intercultural Family Study, a longitudinal study conducted by Dr. Catherine Costigan that examines acculturation and adjustment among Chinese immigrant families living in British Columbia. I focus on a sample of Chinese Canadian families as this is one of the largest minority groups in British Columbia (Statistics Canada, 2006).

Cultural Differences in Adolescent Parenting Ideals

Since there exist cultural differences in parenting behaviours and the cultural beliefs that guide them, I predict that there will be corresponding cultural differences in adolescent parenting ideals.

1. a) Chinese Canadian adolescents' ideal level of parental **warmth** will be lower than that of Canadian non-immigrant adolescents.

b) Chinese Canadian adolescents' ideal level of parental **reasoning** will be lower than that of Canadian non-immigrant adolescents.

c) Chinese Canadian adolescents' ideal level of parental **harsh discipline** will be higher than that of Canadian non-immigrant adolescents.

Cultural group differences in ideals of parental **monitoring** will be investigated in an exploratory fashion as there is not a well-established literature on Chinese and Western cultural views of this parenting technique.

Within-group Differences in Chinese Canadian Adolescent Parenting Ideals

I propose that there are within-group differences in parenting ideals among Chinese Canadian adolescents based on immigration-related and cultural factors. First, I will assess the influence of generational status and length of residence on parenting ideals.

2. a) Second/1.5 generation Chinese adolescents will desire higher levels of parental **warmth** than first-generation foreign-born adolescents.

   b) Second/1.5 generation Chinese adolescents will desire higher levels of parental **reasoning** than first-generation foreign-born adolescents.

   c) Second/1.5 generation Chinese adolescents will desire lower levels of parental **harsh discipline** than first-generation foreign-born adolescents.

   d) The more years Chinese Canadian adolescents have been living in Canada, the higher their desired level of parental **warmth** will be.

   e) The more years Chinese Canadian adolescents have been living in Canada, the higher their desired level of parental **reasoning** will be.

   f) The more years Chinese Canadian adolescents have been living in Canada, the lower their desired level of parental **harsh discipline** will be.

I do not make predictions about how generation status and length of residence might be related to within-group differences in desired levels of parental **monitoring**.

Then I will assess differences in parenting ideals based on Chinese and Canadian cultural orientations, as assessed across domains of behavioural practices and ethnic identification.

3. a) The more strongly adolescents are oriented towards Canadian culture, the higher their level of desired parental **warmth** will be.

   b) The more strongly adolescents are oriented towards Canadian culture, the higher their level of desired parental **reasoning** will be.

   c) The more strongly adolescents are oriented towards Canadian culture, the lower their level of desired parental **harsh discipline** will be.

   d) The more strongly adolescents are oriented towards Chinese culture, the lower their level of desired parental **warmth** will be.

   e) The more strongly adolescents are oriented towards Chinese culture, the lower their level of desired parental **reasoning** will be.

   f) The more strongly adolescents are oriented towards Chinese culture, the higher level of desired parental **harsh discipline** will be.

As with the previous set of hypotheses, I do not make predictions regarding the associations between Chinese and Canadian cultural orientation and ideals of parental **monitoring** due to the lack of existing findings and clear theoretical bases on the cultural perceptions of monitoring.

Links between Mismatches in Perceived and Ideal Parenting and Adolescent Adjustment

In light of the mixed associations found in the literature between parenting and adolescent adjustment, I propose that mismatches in adolescent parenting perceptions and ideals

may be more reliably linked to adolescent outcomes than perceptions of parenting alone. The following hypotheses are predicted for both Canadian and Chinese Canadian adolescents.

4. a) Greater magnitude of mismatches in parental **warmth** will be related to more depressive symptoms.

   b) Greater magnitude of mismatches in parental **warmth** will be related to lower self-esteem.

   c) Greater magnitude of mismatches in parental **reasoning** will be related to more depressive symptoms.

   d) Greater magnitude of mismatches in parental **reasoning** will be related to lower self-esteem.

   e) Greater magnitude of mismatches in parental **harsh discipline** will be related to more depressive symptoms.

   f) Greater magnitude of mismatches in parental **harsh discipline** will be related to lower self-esteem.

   g) Greater magnitude of mismatches in parental **monitoring** will be related to more depressive symptoms.

   h) Greater magnitude of mismatches in parental **monitoring** will be related to lower self-esteem.

I also predict cultural differences in the strength of the relations between mismatches in parenting perceptions and ideals and adjustment.

5. The relation between mismatches and adjustment will be stronger for Chinese Canadian adolescents compared to Canadian non-immigrant adolescents.

Methods

Participants

In the current study, data that was collected as part of the Intercultural Family Study conducted by Dr. Catherine Costigan was used. This larger two-wave longitudinal study focuses on acculturation and adjustment in a family context and includes data obtained from Chinese immigrant families. A smaller sample of Canadian non-immigrant families was obtained as a comparison sample during the first wave of data collection only. I analyzed data collected from Canadian and Chinese Canadian families during the first wave only.

Chinese immigrant sample. Ninety five immigrant Chinese families were recruited from one metropolitan and one mid-sized city in British Columbia, Canada. Families were eligible to participate if both parents were born outside of Canada, immigrated at age 18 or older, and had an adolescent child. All families identified as ethnically Chinese. On average, fathers were 44.8 years old (SD = 4.66), mothers were 42.00 years old (SD = 4.24), and children were 11.89 years old (SD = 1.75, range = 9 – 15). All families were two-parent families and both parents had received most of their formal education in their country of origin. Families originated from People's Republic of China (40.9%), Taiwan (44.3%), and Hong Kong (6.8%). The remainder of families (n = 7) consisted of parents originating from two different Chinese regions or at least one parent from a region not listed above (e.g., Malaysia). The majority of children (81.8%) were born outside of Canada. Fifty one percent of foreign-born children immigrated to Canada before the age of 6. Fathers had been living in Canada for 7.04 years (SD = 5.90), mothers for 6.59 years (SD = 5.23), and foreign-born children for 4.88 years (SD = 3.20).

With respect to education, parents were generally highly educated with majority of fathers (84.3%) and mothers (75.6%) reporting 13 or more years of education and 10.1% of fathers and 15.6% of mothers reporting high school completion. Only 5.6% of fathers and 8.8% of mothers reported less than high school. With respect to socioeconomic status, one third (33.7%) of families reported a household annual income of less than $25,000 per year, 21.8% reported between $25,000 and $40,000 yearly, 10.9% reported between $40,000 - $50,000 range, 10.9% reported between $50,000 and $75,000, and 14.9% reported an annual income of greater than $75,000.

The vast majority of parents reported seeking greater opportunities (e.g., work, children's education, better living environment) as motivations for immigration. The majority of fathers (80%) and mothers (88%) reported speaking completely or mostly in Chinese with their children.

Canadian comparison sample. Fifty-five non-immigrant Canadian families were recruited. Families were eligible to participate if they identified as Canadian, if parents and grandparents were born in Canada, and if they had an adolescent child between age 10 and 14. The final sample consisted of 54 mothers, 38 fathers, and 55 adolescents (60% male). All families were two-parent families with the exception of 14 families that were led by single mothers or fathers. On average, fathers were 43.89 years old (*SD* = 5.69), mothers were 43.33 years old (*SD* = 4.69), and children were 12.81 years old (*SD* = 1.32).

With respect to education, the vast majority of fathers (94.7%) and all mothers (100%) reported completion of high school (13.2% fathers and 21.8% mothers) or post-secondary education (81% fathers and 72.7% mothers). Annual household income was averaged between mothers' and fathers' reports: 10.9% earned less than $25,000 yearly, 12.7% earned between

$24,000 and $40,000, 7.3% earned between $40,000 and $50,000, 12.7% earned between $50,000 and $75,000, and 40.8% earned over $75,000.

Procedure

The Intercultural Family Study received approval from the University of Victoria Human Research Ethics Committee. Potentially eligible Chinese immigrant families were approached by staff at an intercultural agency. A small number of families were recruited through announcements at Chinese religious services. A "snowballing" technique was employed, in which families who had already participated were asked to refer other families they knew of who may be interested in participating. Non-immigrant Canadian families were recruited through the school system. Parents were provided with information about the purposes and procedures of the study. Interested parents gave permission for their contact information to be passed on to the research team. The total number of families who heard about the study is unknown. However, the majority of families contacted by the research team completed the study.

Fathers, mothers, and children completed consent forms and then independently completed a paper-and-pencil questionnaire package. Family members did not share their responses with each other (i.e., responses were kept confidential between family members). The majority of Chinese Canadian parents (87.6% of fathers and 91.2% of mothers) completed the questionnaires in Chinese. All children completed the questionnaires in English. English versions of the questionnaires were translated into Chinese and then back translated into English by separate teams of bilingual and bicultural individuals from China, Taiwan, and Hong Kong. The teams then compared both English versions to ensure they both conveyed the intended meaning of the questions. Discrepancies were remediated through group discussion.

All but one family opted to have researchers visit their home (vs. going to the university) to complete the questionnaires. Two research assistants, at least one of whom spoke the Chinese Canadian families' native language, explained the purpose of the study, obtained informed consent, and answered any questions that arose regarding the measures. All families were given $30 upon completion of the survey as a token of appreciation for their time and effort.

Measures

Demographic information. Adolescents and parents answered questions about a number of demographic variables including: age, birth place, country of origin, length of residence in Canada, highest education level, and annual family income. The demographic questions are provided in Appendix A.

Chinese and Canadian cultural orientation. Immigrant adolescents' Chinese and Canadian orientations were measured using an adapted version of Acculturation Rating Scale for Mexican Americans II (ARSMA-II; Cuéllar et al., 1995). The ARSMA-II is an orthogonal measure of acculturation that assesses host and heritage cultural orientations independently. Items on this scale are relevant to diverse ethnic groups and has demonstrated good psychometric properties in Mexican Americans (Cuéllar et al., 1995), and Chinese parents and adolescents (Kim, 2003). The only adaptations made to items were replacing "Mexican" with "Chinese" or "Asian," and "American" with "Canadian." Fourteen items each were administered to measure Chinese and Canadian orientation in the domains of ethnic identity (e.g., "I like to identify myself as Canadian"), and behavioural practices (e.g., "I enjoy Asian language movies"). Participants responded on a five point scale from 1 (*not at all*) to 5 (*extremely often/almost always*). Cronbach's alpha was .74 for Chinese orientation, and .87 for Canadian orientation. The full measure is provided in Appendix B.

Perceived parental warmth. Perceived parental warmth was measured using seven items created by Dr. Costigan and the Intercultural Family Studies research team (Costigan & Dokis, 2006). These items assess the degree to which parents are affectionate and supportive with their children. An example item is "When you have your troubles does your mom/dad comfort and help you?" Adolescents rated mothers and fathers separately on a seven point scale from 1 (*never*) to 7 (*always*). See Appendix C for all items. Internal consistencies ranged from .84 to .96.

Perceived parental reasoning, harsh discipline, and monitoring. Perceived parental reasoning, harsh discipline, and monitoring were measured using items that Kim and Ge (2000) adapted from the Iowa Youth and Families Project (Conger, Patterson, & Ge, 1995). All items were assessed on a seven point scale from 1 (*never*) to 7 (*always*). Adolescents rated mothers and fathers separately. Items have demonstrated good reliability in samples of Chinese American adolescents (S. Y. Kim & Ge, 2000; S. Y. Kim et al., 2013), Chinese American parents (S. Y. Kim, Chen, Li, Huang, & Moon, 2009), and Chinese Canadian adolescents and parents (Su & Costigan, 2009).

Four items assessed reasoning. These items pertain to the tendency for parents to provide reasons for their decisions and actions. An example item is "Does your parent discipline you by reasoning, explaining, or talking to you?" Internal consistencies ranged from .64 to .92.

Three items assessed harsh discipline. These items assess the degree of parents' use of physical punishment. An example item is "When you do something wrong, does your mom tell you to get out or lock you out of the house?" Internal consistencies ranged from .65 to .69.

Three items were used to assess monitoring. These items pertain to the degree of knowledge parents have of their children's whereabouts. An example item is "Does your mom know if you came home or were in bed on time?" Internal consistencies ranged from .65 to .91.

Overall scores were averaged across items. All items are provided in Appendix D.

Ideal parental warmth. Ideals of parental warmth were assessed using modified items from the measure of perceived parental warmth. Instead of asking about actual levels of parenting (e.g., "Does your mom…"), questions were phrased to ask whether parents *should* behave in certain ways (e.g., "Should a mom…"). An example item is "Should a mom enjoy talking to her child?" Participants responded on a seven point scale from 1 (*never*) to 7 (*always*). Internal consistencies ranged from .80 to .94. Items are provided in Appendix E.

Ideal parental reasoning, harsh discipline, and monitoring. Items used for perceived parental reasoning, harsh discipline, and monitoring (S. Y. Kim & Ge, 2000; see above for description) were modified in the same manner as for ideal parental warmth (see above). Sample items are "Should a mom ask her child what she thinks before making decisions that affect her" for parental reasoning, "Should a mom spank or slap her child when she does something wrong?" for harsh discipline, and "Should a dad know who his child is with when he is away from home?" for parental reasoning. Participants responded on a seven point scale from 1 (*never*) to 7 (*always*). Internal consistencies ranged from .50 to .79 for ideal parental reasoning, .26 to .71 for ideal parental harsh discipline, and .85 to .91 for ideal parental monitoring. Items are provided in Appendix F.

Adolescent self-esteem. Self-esteem was assessed using the Rosenberg Self-Esteem Scale (Rosenberg, 1979). This 10-item scale assesses general feelings about oneself and includes five positive statements (e.g., "On the whole, I am satisfied with myself") and five reverse-coded

negative statements (e.g., “I certainly feel useless at times.”). Scores on each item were averaged. Higher scores indicate higher self-esteem. Internal consistency was .88 for the Chinese sample, and .89 for the Canadian sample. Items are provided in Appendix G.

The Rosenberg Self-Esteem Scale has been widely used in samples of ethnically diverse adolescents (Way & Robinson, 2003) and has demonstrated adequate to good reliability amongst Mainland Chinese adolescents (Bush, Peterson, Cobas, & Supple, 2002), Asian adolescents (Ang, 2006), Chinese American adolescents (Juang, Syed, & Cookston, 2012), and first- and second-generation Chinese Canadians (Lay & Verkuyten, 1999).

Adolescent depressive symptoms. Depressive symptoms were assessed using the 20-item Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977). A sample item is “I felt that I could not shake off the blues even with help from my family or friends.” Adolescents reported the frequency of symptoms over the past week on a four point scale from 0 (*rarely or none of the time/less than 1 day*) to 3 (*most of the time/5-7 days*). Scores on each item were summed. Higher total scores indicate more depressive symptoms (Radloff, 1991). Internal consistency for the Chinese sample was .88, and .86 for the Canadian sample. Items are provided in Appendix H.

The CES-D has demonstrated good reliability and validity in non-immigrant adolescent populations (Radloff, 1977; Radloff, 1991) as well as in Chinese American adolescent populations (Juang et al., 2012; S. Y. Kim & Ge, 2000; S. Y. Kim et al., 2013) and Chinese Canadian university students (Chia & Costigan, 2006).

Results

Data Cleaning

First, the data were scanned for missing values. On all variables, over 90% of participants answered all items. In the few instances of missing data, means were calculated for measures whenever participants had answered at least 80% of items. If fewer than 80% of items on a subscale were answered, the subscale was left as missing.

Skewness and kurtosis in all parenting and adolescent adjustment measures were then evaluated. Descriptive statistics are presented in Tables 1 and 2.

Table 1

Descriptive statistics of actual and ideal parenting measures

	Father's parenting			Mothers' parenting		
	Mean (SD)	Skewness	Kurtosis	Mean (SD)	Skewness	Kurtosis
Chinese sample						
Warmth						
Perceived	5.67 (0.99)	-0.68	-0.42	5.88 (0.97)	-1.10	0.82
Ideal	6.32 (0.71)	-1.38	1.67	6.37 (0.66)	-1.14	0.92
Harsh discipline						
Perceived	1.42 (0.71)	2.33	5.63	1.60 (.96)	2.36	6.04
Ideal	1.53 (0.88)	2.84	12.03	1.55 (.89)	3.19	15.11
Inductive reasoning						
Perceived	5.31 (1.12)	-0.39	-0.56	5.46 (1.08)	-0.58	-0.15
Ideal	6.10 (0.81)	-0.82	-0.18	6.11 (0.89)	-1.17	0.85
Monitoring						
Perceived	5.74 (1.24)	-0.97	0.16	6.30 (0.82)	-1.22	0.53
Ideal	5.92 (1.19)	-1.32	1.76	5.98 (1.12)	-1.41	2.53
Canadian sample						
Warmth						
Perceived	5.40 (1.63)	-1.40	1.61	5.98 (0.82)	-0.71	-0.50
Ideal	6.30 (0.95)	-1.61	2.34	6.42 (0.89)	-2.18	4.78
Harsh discipline						
Perceived	1.24 (0.74)	4.14	17.98	1.23 (0.72)	4.25	18.93
Ideal	1.22 (0.53)	3.15	10.63	1.25 (0.57)	2.88	8.33
Inductive reasoning						
Perceived	5.15 (1.68)	-1.10	0.66	5.73 (1.09)	-0.84	-0.11
Ideal	6.23 (0.90)	-1.19	0.37	6.27 (0.93)	-1.26	0.51
Monitoring						
Perceived	4.98 (1.74)	-0.64	-0.69	6.08 (0.88)	-1.12	1.00
Ideal	5.73 (1.39)	-1.28	1.10	5.87 (1.28)	-1.58	2.46

Note. Parenting measures were assessed on a scale from 1 (*never*) to 7 (*always*).

Table 2
Descriptive statistics of adolescent outcome measures

Measure	Mean (*SD*)	Skewness	Kurtosis
Chinese sample			
Self-esteem	3.18 (0.56)	-0.60	1.29
Depressive symptoms	11.75 (9.07)	1.40	2.11
Canadian sample			
Self-esteem	3.34 (0.53)	-0.69	-0.05
Depressive symptoms	9.92 (7.92)	1.90	4.18

Note. The maximum possible range of scores was 1 to 4 for the Rosenberg self-esteem scale was 1 to 4, and 0 to 60 for the Centre for Epidemiological Studies – Depression scale.

Ratings of both fathers' and mothers' perceived and ideal harsh discipline showed especially high values of skewness and kurtosis. All four measures were highly positively skewed and kurtotic, revealing that majority of adolescents reported very low levels of perceived and ideal paternal and maternal harsh discipline parenting behaviours. Transformation methods were employed in an attempt to correct the non-normality, including categorization (e.g., into low, medium, and high groups) and dichotomization of scale means and item scores (e.g., present or absent). Given that the three items assessing harsh discipline did not achieve satisfactory internal consistencies in majority of cases (αs between .26 to .69 in the Canadian sample, and αs between .65 and .71 in the Chinese sample), it was more appropriate to conduct transformations at the item-level. The method that resulted in the most reduction of skewness and kurtosis was dichotomizing scores on the three individual harsh discipline items. Participants were assigned a score of "0" representing the *absence* of harsh discipline behaviours if they rated *never* on an item, and a score of "1" representing the *presence* of harsh discipline behaviours if they gave any other response (i.e., *always, almost always, fairly often, about half the time, not often, almost never*). The percentage of participants in each sample scoring Presence and

Absence on each harsh discipline item is presented in Table 3. The majority of adolescents reported no harsh discipline behaviours on all items, particularly in the Canadian sample. However, there were notable minorities on some measures (i.e., perceived and ideal paternal and maternal spanking/slapping, on which over 30% of Chinese adolescents scored presence).

Table 3

Descriptive statistics of dichotomized adolescent reports of paternal and maternal perceived and ideal harsh discipline behaviours

	Paternal harsh discipline			
	Chinese sample		Canadian sample	
Item	Presence (%)	Absence (%)	Presence (%)	Absence (%)
Perceived parenting				
Spank or slap you	36.8	63.2	14.3	85.7
Tell you to get out or lock you out of the house	12.6	87.4	8.3	91.7
Hit you with a belt, paddle, or something else as punishment	21.3	78.7	4.1	95.9
Ideal parenting				
Spank or slap you	37.9	62.1	13.7	86.3
Tell you to get out or lock you out of the house	20.2	79.8	11.8	88.2
Hit you with a belt, paddle, or something else as punishment	19.4	80.6	6.0	94.0
	Maternal harsh discipline			
	Chinese sample		Canadian sample	
Item	Presence (%)	Absence (%)	Presence (%)	Absence (%)
Perceived parenting				
Spank or slap you	49.5	50.5	13.7	86.3
Tell you to get out or lock you out of the house	13.8	86.2	7.5	92.5
Hit you with a belt, paddle, or something else as punishment	26.9	73.1	5.8	94.2
Ideal parenting				
Spank or slap you	44.1	55.9	18.9	81.1
Tell you to get out or lock you out of the house	21.3	78.7	11.3	88.7
Hit you with a belt, paddle, or something else as punishment	18.3	81.7	5.7	94.3

Measurement Invariance Tests

Multi-group confirmatory factor analyses (CFAs) were conducted using AMOS to determine whether the structures of perceived and ideal parenting constructs were equivalent or invariant across Chinese and Canadian samples. Paternal and maternal warmth, reasoning, and monitoring scales were examined. Harsh discipline measures were excluded from measurement invariance testing due to their poor psychometric properties. For each scale, measurement invariance was tested by comparing goodness-of-fit indices of a series of nested models. Increasingly constrained models were compared with a baseline, unconstrained model. Both metric and scalar invariance were evaluated (Milfont & Fischer, 2010). First, to test for metric invariance, models in which all factor loadings were constrained between samples were compared with unconstrained models in which factor loadings were allowed to vary. Second, to test for scalar invariance, models in which all factor loadings and all item intercepts were constrained between samples were compared with unconstrained models.

Absolute and relative goodness-of-fit indices of all models and model comparisons are presented in Table 4, first for fathers' parenting constructs and then mothers' parenting constructs. Metric invariance was met if the model constraining factor loadings did not exhibit significant worsening of model fit compared to the unconstrained model. Scalar invariance was met if the model constraining factor loadings and item intercepts did not exhibit significant worsening of model fit compared to the unconstrained model. Change in model fit was assessed by $\Delta\chi^2$.

Table 4

Goodness-of-fit statistics for multi-group CFAs of paternal and maternal perceived and ideal warmth, reasoning, and monitoring

	Fathers' parenting						
Model	χ^2/df	*p*	RMSEA [90% CI]	CFI	$\Delta\chi^2$	Δdf	*p*
Warmth (perceived)							
Unconstrained	2.41	.00	.10 [.07, .13]	.93	—	—	—
Factor loadings constrained	2.08	.00	.09 [.06, .11]	.93	3.25	6	.78
Factor loadings and intercepts constrained	1.99	.00	.08 [.06, .11]	.92	14.08	13	.37
Warmth (ideal)							
Unconstrained	3.81	.00	.14 [.11, .17]	.86	—	—	—
Factor loadings constrained	4.12	.00	.15 [.12, .17]	.81	33.33	6	.00
Factor loadings and intercepts constrained	3.76	.00	.14 [.11, .16]	.79	47.34	13	.00
Reasoning (perceived)							
Unconstrained	2.82	.02	.11 [.04, .19]	.96	—	—	—
Factor loadings constrained	1.86	.07	.08 [.00, .14]	.96	1.78	3	.62
Factor loadings and intercepts constrained	2.16	.01	.09 [.04, .14]	.93	12.55	7	.08
Reasoning (ideal)							
Unconstrained	2.28	.06	.09 [.00, .17]	.95	—	—	—
Factor loadings constrained	1.73	.10	.07 [.00, .14]	.95	3.02	3	.39
Factor loadings and intercepts constrained	1.89	.04	.08 [.02, .13]	.90	11.63	7	.11
Monitoring (perceived)							
Unconstrained	(no *df*)	—	.07 [.00, .19]	1.00	—	—	—
Factor loadings constrained	1.75	.17	.13 [.06, .19]	.99	3.51	2	.17
Factor loadings and intercepts constrained	3.30	.006	.15 [.09, .21]	.94	16.51	5	.01
Monitoring (ideal)							
Unconstrained	(no *df*)	—	.00 [.00, .95]	1.00	—	—	—
Factor loadings constrained	0.07	.93	.00 [.00, .03]	1.00	0.15	2	.93
Factor loadings and intercepts constrained	0.25	.94	.00 [.00, .06]	1.00	1.26	5	.94

	Mothers' parenting						
Model	χ^2/df	*p*	RMSEA [90% CI]	CFI	$\Delta\chi^2$	Δdf	*p*
Warmth (perceived)							
Unconstrained	1.79	.006	.07 [.04, .11]	.95	—	—	—
Factor loadings constrained	1.52	.01	.07 [.03, .10]	.95	4.97	6	.55
Factor loadings and intercepts constrained	1.67	.004	.07 [.04, .10]	.93	18.51	13	.14
Warmth (ideal)							
Unconstrained	2.41	.00	.10 [.07, .13]	.93	—	—	—
Factor loadings constrained	2.73	.00	.11 [.08, .14]	.89	25.39	6	.00
Factor loadings and intercepts constrained	2.60	.00	.10 [.08, .13]	.88	39.22	13	.00
Reasoning (perceived)							
Unconstrained	0.17	.95	.00 [.00, .00]	1.00	—	—	—
Factor loadings constrained	0.24	.98	.00 [.00, .00]	1.00	1.00	3	.80
Factor loadings and intercepts constrained	0.60	.83	.00 [.00, .05]	1.00	5.95	7	.55
Reasoning (ideal)							
Unconstrained	0.87	.48	.00 [.00, .12]	1.00	—	—	—
Factor loadings constrained	1.41	.20	.05 [.00, .12]	.98	6.37	3	.10
Factor loadings and intercepts constrained	1.77	.05	.07 [.00, .12]	.95	16.00	7	.03
Monitoring (perceived)							
Unconstrained	(no *df*)	—	.06 [.00, .19]	1.00	—	—	—
Factor loadings constrained	1.56	.21	.05 [.00, .13]	.99	3.13	2	.21
Factor loadings and intercepts constrained	1.35	.24	.03 [.00, .12]	.98	6.74	5	.24
Monitoring (ideal)							
Unconstrained	(no *df*)	—	.00 [.00, .13]	1.00	—	—	—
Factor loadings constrained	0.41	.67	.00 [.00, .10]	1.00	0.82	2	.67
Factor loadings and intercepts constrained	0.70	.62	.00 [.00, .10]	1.00	3.50	5	.62

The majority of parenting measures demonstrated metric and scalar invariance. For example, as shown in Table 4, when factor loadings were constrained between samples for perceived paternal warmth, there was no significant worsening of model fit compared to the unconstrained model ($\Delta\chi^2 = 3.25$, $p = .78$). Similarly, when both factor loadings and item intercepts were constrained, there was no significant worsening of model fit ($\Delta\chi^2 = 14.08$, $p = .37$) compared to the initial unconstrained model. Overall, the pattern of results indicated that for the majority of parenting measures, the same items loaded significantly and with the same strength onto parenting constructs across cultural groups.

There were four exceptions. They were *paternal and maternal ideal warmth* (which will be discussed below), *perceived paternal monitoring* and *ideal maternal reasoning*. Perceived paternal monitoring and ideal maternal reasoning achieved metric invariance but not scalar invariance. For perceived paternal monitoring, Chinese adolescents rated their fathers higher than Canadian adolescents did on "know where child is in the course of a day" to an extent that it could not be constrained to be equal. For ideal maternal reasoning, Chinese and Canadian adolescents differed on three items to an extent that they could not be constrained to be equal. Chinese adolescents rated higher levels of ideal "comfort in telling mothers about what is going on in their life." On the other hand, Canadian adolescents rated higher levels of ideal maternal "asking children what they think before making decisions that affect them" and "disciplining by reasoning."

The two measures of ideal warmth did not demonstrate metric or scalar invariance. In addition to understanding the reasons for invariance, I wanted to identify a subgroup of items that were invariant across groups so that this measure could be used for between-group

comparisons in the main analyses. The unstandardized regression weights of each item onto latent ideal warmth constructs are presented in Table 5.

Table 5
Unstandardized regression weights of unconstrained models of ideal parental warmth measures

	Paternal parenting		Maternal parenting	
Items in 7-item full scale	Chinese	Canadian	Chinese	Canadian
Be affectionate with child	1	1	1	1
Enjoy talking to child	1.93	1.04	1.11	1.66
Try to understand what child is really like	1.56	1.27	1.40	1.55
Help child when he/she is having troubles	1.24	1.22	1.08	1.73
Be cheerful with child	2.01	0.83	1.04	1.16
Feel satisfied with relationship	1.84	0.95	0.92	1.35
Smile at child	1.90	0.42	0.94	1.23

In order to identify which items contributed most strongly to the lack of invariance, pairwise comparisons were examined between the Chinese and Canadian groups on all seven items. The item with the highest pairwise difference (i.e., the item on which the two groups' ratings showed the greatest critical ratio) was removed from the model and CFAs were re-run. This process was repeated until fit indices indicated invariance. Goodness-of-fit indices at each step in the process are presented in Table 6.

Table 6

Goodness-of-fit statistics for multi-group CFAs of paternal and maternal ideal warmth measures with item removal

	Fathers' parenting						
Model	χ^2/df	*p*	RMSEA [90% CI]	CFI	$\Delta\chi^2$	Δdf	*p*
Ideal warmth – 6 items[a]							
Unconstrained	3.62	.00	.13 [.10, .17]	.90	—	—	—
Factor loadings constrained	3.52	.00	.13 [.10, .16]	.87	15.86	5	.007
Factor loadings and intercepts constrained	3.02	.00	.12 [.09, .15]	.87	25.50	11	.01
Ideal warmth – 5 items[b]							
Unconstrained	1.93	.04	.08 [.02, .13]	.97	—	—	—
Factor loadings constrained	1.65	.06	.07 [.00, .11]	.97	3.76	4	.44
Factor loadings and intercepts constrained	1.67	.03	.07 [.02, .11]	.96	12.47	9	.19
	Mothers' parenting						
Model	χ^2/df	*p*	RMSEA [90% CI]	CFI	$\Delta\chi^2$	Δdf	*P*
Ideal warmth – 6 items[a]							
Unconstrained	3.31	.00	.13 [.09, .16]	.92	—	—	—
Factor loadings constrained	3.26	.00	.12 [.09, .16]	.90	15.26	5	.009
Factor loadings and intercepts constrained	2.89	.00	.11 [.09, .14]	.89	24.07	11	.01
Ideal warmth – 5 items[b]							
Unconstrained	2.81	.002	.11 [.06, .16]	.95	—	—	—
Factor loadings constrained	2.28	.004	.09 [.05, .14]	.95	3.80	4	.43
Factor loadings and intercepts constrained	2.12	.003	.09 [.05, .13]	.94	12.22	9	.20

[a] "smile at child" item removed, [b] "smile at child" and "be cheerful when with child" items removed.

In the end, for both paternal and maternal ideal warmth, two items were removed before invariance was achieved. These were: “should a dad/mom smile at his/her child?” and “should a dad/mom be cheerful when he/she is with his/her child?” These items could not be constrained across samples because they loaded more strongly onto latent constructs in one of the samples (see Table 5). For fathers, the item “be cheerful with child” and “smile at child” loaded significantly more strongly onto the latent construct of ideal warmth in the Chinese sample compared to the Canadian sample. Maternal smiling at children loaded more strongly onto ideal warmth in the Canadian sample than in the Chinese sample. The remaining five items demonstrated invariance across the two groups (see Table 9 for factor loadings). Thus, the five items loaded significantly and with the same strength onto paternal and maternal ideal warmth constructs across cultural groups.

For consistency between the ideal and the perceived scales, paternal and maternal *perceived* warmth scales were modified to consist of the five corresponding items. These five-item perceived warmth scales were evaluated for invariance (see Table 7). Consistent with the findings for the original seven-item perceived warmth scales, both mother and father models demonstrated metric and scalar invariance. Means based on the five-item perceived and ideal warmth scales were computed. Descriptive statistics for the revised warmth scales are presented in Table 8.

The final factor loadings for all parenting measures are presented in Table 9. This table presents the unstandardized and standardized regression weights for the constrained models (that is, the factor loading for each item on its respective latent variable across both Chinese and Canadian samples).

Table 7

Goodness-of-fit statistics for multi-group CFAs of five-item perceived paternal and maternal warmth measures

	Fathers' parenting						
Model	χ^2/df	*p*	RMSEA [90% CI]	CFI	$\Delta\chi^2$	Δdf	*p*
Perceived warmth – 5 items[a]							
Unconstrained	1.85	.047	.08 [.01, .13]	.97	—	—	—
Factor loadings constrained	1.46	.11	.06 [.00, .11]	.98	2.00	4	.74
Factor loadings and intercepts constrained	1.45	.09	.06 [.00, .10]	.97	9.24	9	.42
	Mothers' parenting						
Model	χ^2/df	*p*	RMSEA [90% CI]	CFI	$\Delta\chi^2$	Δdf	*p*
Perceived – 5 items[a]							
Unconstrained	1.35	.20	.05 [.00, .10]	.99	—	—	—
Factor loadings constrained	1.36	.16	.05 [.00, .10]	.98	5.57	4	.23
Factor loadings and intercepts constrained	1.32	.16	.05 [.00, .09]	.97	11.60	9	.24

[a] "smile at child" and "be cheerful when with child" items removed.

Table 8

Descriptive statistics of five-item parental warmth measures

	Father's parenting			Mothers' parenting		
	Mean (SD)	Skewness	Kurtosis	Mean (SD)	Skewness	Kurtosis
Chinese sample						
Perceived warmth	5.64 (1.03)	-0.63	-0.43	5.89 (1.04)	-1.16	1.01
Ideal warmth	6.29 (0.75)	-1.38	1.59	6.35 (0.69)	-1.25	1.38
Canadian sample						
Perceived warmth	5.26 (-1.10)	-1.10	0.97	5.92 (0.90)	-0.69	-0.58
Ideal warmth	6.23 (1.07)	-1.93	4.19	6.27 (1.10)	-2.11	4.35

Note. Parenting measures were assessed on a scale from 1 (*never*) to 7 (*always*)

Table 9

Unstandardized and standardized regression weights of invariant models of parenting measures

	Chinese sample		Canadian sample	
Fathers' parenting measures and items	Unstd B	Std B	Unstd B	Std B
Perceived warmth				
Be affectionate with child	1	.57	1	.89
Enjoy talking to child	0.92	.57	0.92	.84
Try to understand what child is really like	0.98	.62	0.98	.83
Help child when he/she is having troubles	1.14	.75	1.14	.96
Feel satisfied with relationship	0.87	.70	0.87	.75
Ideal warmth				
Be affectionate with child	1	.39	1	.80
Enjoy talking to child	1.16	.63	1.16	.87
Try to understand what child is really like	1.41	.72	1.41	.94
Help child when he/she is having troubles	1.27	.68	1.27	.89
Feel satisfied with relationship	1.06	.68	1.06	.85
Perceived reasoning				
Feel comfortable telling parent about what is going on in child's life	1	.43	1	.77
Give child reasons for decisions	1.03	.64	1.03	.90
Ask what child thinks before making decisions that affect child	1.17	.64	1.17	.86
Discipline by reasoning, explaining, or talking to child	1.19	.50	1.19	.88
Ideal reasoning				
Feel comfortable telling parent about what is going on in child's life	1	.46	1	.39
Give child reasons for decisions	1.23	.58	1.23	.75
Ask what child thinks before making decisions that affect child	1.83	.78	1.83	1.00
Discipline by reasoning, explaining, or talking to child	0.77	.29	0.77	.39
Perceived monitoring				
In the course of the day, parent knows where child is	1	.93	1	.88
Parent knows who child is with when away from home	1.01	.77	1.01	.91
Parent knows if child came home or was in bed by a set time	0.89	.66	0.89	.79
Ideal monitoring				
In the course of the day, parent knows where child is	1	.91	1	1.00
Parent knows who child is with when away from home	1.00	.80	1.00	.80
Parent knows if child came home or was in bed by a set time	0.87	.80	0.87	.74

Mothers' parenting measures and items	Chinese sample		Canadian sample	
	Unstd B	Std B	Unstd B	Std B
Perceived warmth				
Be affectionate with child	1	.57	1	.50
Enjoy talking to child	1.10	.63	1.10	.64
Try to understand what child is really like	1.37	.79	1.37	.74
Help child when he/she is having troubles	1.22	.82	1.22	.87
Feel satisfied with relationship	0.87	.65	0.87	.67
Ideal warmth				
Be affectionate with child	1	.44	1	.88
Enjoy talking to child	0.90	.71	0.90	.90
Try to understand what child is really like	1.10	.76	1.10	.90
Help child when he/she is having troubles	0.96	.66	0.96	.91
Feel satisfied with relationship	0.75	.63	0.75	.81
Perceived reasoning				
Feel comfortable telling parent about what is going on in child's life	1	.55	1	.66
Give child reasons for decisions	1.17	.70	1.17	.74
Ask what child thinks before making decisions that affect child	1.25	.66	1.25	.76
Discipline by reasoning, explaining, or talking to child	1.15	.56	1.15	.73
Ideal reasoning				
Feel comfortable telling parent about what is going on in child's life	1	.71	1	.53
Give child reasons for decisions	0.90	.78	0.90	.81
Ask what child thinks before making decisions that affect child	1.12	.86	1.12	.95
Discipline by reasoning, explaining, or talking to child	0.44	.29	0.44	.35
Perceived monitoring				
In the course of the day, parent knows where child is	1	.90	1	.91
Parent knows who child is with when away from home	1.01	.70	1.01	.60
Parent knows if child came home or was in bed by a set time	0.60	.43	0.60	.35
Ideal monitoring				
In the course of the day, parent knows where child is	1	.91	1	.86
Parent knows who child is with when away from home	1.17	.91	1.17	.77
Parent knows if child came home or was in bed by a set time	1.06	.83	1.06	.80

Note. Unstd = unstandardized, Std = standardized. All measures achieved metric and scalar invariance except perceived paternal monitoring and ideal maternal reasoning, both of which achieved metric but not scalar invariance.

Preliminary Analyses

Independent t-tests were conducted to determine whether the Chinese and Canadian samples differed significantly on the following demographic variables: child age, gender, and mothers' and fathers' highest level of education (as measures of socioeconomic status). Reports of annual household income were not used because they may not accurately reflect socioeconomic status of immigrant families (e.g., families reporting low annual incomes may have ample savings that can sustain living with little to no employment income, immigrant adults may not hold higher level jobs that they were qualified to do in their home country due to foreign credential recognition issues). Thus, annual household income may be underestimates of families' human capital. Results showed that adolescents in the Chinese sample (M = 11.90, SD = 1.79) were significantly younger than adolescents in the Canadian sample (M = 12.85, SD = 1.31), $t(147) = -3.41$, $p = .001$. The Chinese sample also consisted of a higher percentage of female adolescents (56% female) than the Canadian sample (39% female), $t(147) = 1.96$, $p = .052$. The samples did not significantly differ in mothers' and fathers' highest level of education, $t(145) = -1.49$, $p = .14$, and $t(130) = 1.65$, $p = .10$, respectively.

Because the samples different systematically according to adolescent age and gender, ANCOVAs were conducted to determine whether the parenting constructs also varied systematically as a function adolescent age and gender. Several age differences emerged in reports of perceived parenting. As adolescent age increased, for both fathers and mothers, levels of perceived warmth, reasoning, and monitoring decreased, Fs > 3.87, ps ≤ .05. There were no age differences in any of the measures of ideal parenting, Fs < 2.05, ps > .15. Gender differences in parenting were also found. Across cultural groups, daughters reported higher levels of ideal warmth and reasoning for both mothers and fathers, and higher levels of ideal maternal

monitoring than sons, *F*s > 4.30, *p*s < .05. Since there were significant age and gender differences in the main variables of interest and because the samples differed on these dimensions, all subsequent analyses controlled for adolescent age and gender.

Chi-square analyses were conducted to investigate age and gender differences in reports of perceived and ideal harsh discipline behaviours (i.e., spanking/slapping, locking out of the house, and hitting with an object). Adolescents were categorized into young (ages 8 to 11) and old (ages 12 to 15) groups. Results revealed significant age differences in perceived paternal spanking, $\chi^2(1, N = 143) = 16.35$, $p < .001$, maternal spanking, $\chi^2(1, N = 146) = 6.80$, $p = .009$, paternal locking out of the house, $\chi^2(1, N = 142) = 3.92$, $p = .048$, and paternal hitting with an object, $\chi^2(1, N = 142) = 5.21$, $p = .02$. Higher proportions of younger adolescents reported the presence of these indicators of harsh discipline compared to older adolescents.

With respect to ideal harsh discipline, chi-square tests revealed a significant age difference in reports of ideal paternal spanking. Specifically, a higher proportion of younger adolescents reported that fathers should spank their children as a form of discipline compared to older adolescents, $\chi^2(1, N = 145) = 9.15$, $p = .002$. There were no significant differences in proportions of younger and older adolescents' reports of ideal maternal spanking, and paternal and maternal locking out of the house and hitting with an object, χ^2s < 3.27, *p*s > .07.

Chi square analyses revealed no significant gender differences in reports of perceived and ideal harsh discipline behaviours, χ^2s < 1.50, *p*s > .14. Sons and daughters did not differ in proportions of reports of presence and absence of perceived and ideal harsh discipline behaviours.

Cultural Differences in Adolescent Parenting Ideals

MANCOVAs were conducted to determine whether or not there were cultural group differences in adolescent ideals of parental warmth, reasoning, and monitoring, controlling for adolescent age and gender. These analyses tested the hypotheses (1a, 1b) that Chinese adolescents would desire lower levels of parental warmth and reasoning compared to Canadian adolescents, and explored whether Chinese and Canadian adolescents differ in ideal parental monitoring. The results revealed no significant differences between Chinese and Canadian samples on ideal parental warmth, reasoning, and monitoring for both fathers and mothers, $F(3, 125) = .96$, $p = .42$, and $F(3, 136) = 1.14$, $p = .34$, respectively.

Chi-square tests evaluated the hypothesis (1c) that more Chinese adolescents than Canadian adolescents would report the presence of ideal harsh discipline behaviours. As expected, the results revealed that compared to Canadian adolescents, higher proportions of Chinese adolescents indicated presence of ideal paternal spanking, $\chi^2(1, N = 146) = 9.33$, $p = .002$, ideal maternal spanking, $\chi^2(1, N = 146) = 9.45$, $p = .002$, ideal paternal hitting with an object, $\chi^2(1, N = 143) = 4.63$, $p = .03$, and ideal maternal hitting with an object, $\chi^2(1, N = 146) = 4.55$, $p = .03$. However, there were no significant cultural group differences in ideals of paternal and maternal locking out of the house, $\chi^2(1, N = 145) = 1.65$, $p = .20$, and $\chi^2(1, N = 147) = 2.31$, $p = .13$, respectively. Since there was an age difference in reports of ideal paternal spanking, it was not possible to determine whether the cultural group difference observed in this measure was due to age or to culture (or a combination of both). However, there were no age or gender differences in reports of ideal maternal spanking and paternal and maternal hitting with an object, so the cultural group differences observed in these measures are not merely due to sample differences in age or gender.

Within-group Differences in Chinese Canadian Adolescent Parenting Ideals

Preliminary analyses. Before investigating within-group differences in parenting ideals based on the independent variables of generational status, length of residence, and cultural orientation, the relations between these variables and adolescent age and gender within the Chinese sample were explored using correlation and chi-square tests. Adolescent age was significantly correlated with generational status, $r = .28$, $p = .005$. Older adolescents were more likely to be first generation children. Age was not significantly related to length of residence, $r = .13$, $p = .22$. Age was significantly positively correlated to Canadian orientation, $r = .22$, $p = .04$, but not Chinese orientation, $r = .09$, $p = .41$. As adolescent age increased, orientation to Canadian culture increased.

There were no significant gender differences in generational status, $\chi^2(1, N = 96) = .03$, $p = .86$, or length of residence, $r = -.04$, $p = .67$. Gender was significantly positively related to Canadian orientation, $r = .22$, $p = .04$, and to Chinese orientation, $r = .31$, $p = .002$. Females were more strongly oriented to both Canadian and Chinese cultures than males.

Subsequent analyses involving generational status as the independent variable controlled for age, analyses involving Chinese orientation controlled for gender, and analyses involving Canadian orientation controlled for gender and age.

Generational status. MANCOVAs were conducted to examine whether first generation adolescents differed from second/1.5 generation adolescents in ratings of ideal warmth, reasoning, and monitoring. These analyses test the hypotheses (2a, 2b) that first generation adolescents would desire higher levels of warmth and reasoning compared to second/1.5 generation adolescents. The results revealed no significant differences in ideal paternal and

maternal warmth, reasoning, and monitoring between first generation and second/1.5 generation adolescents after controlling for adolescent age, *F*s < .92, *p*s > .05 (see Table 10).

Table 10
MANCOVAs for generational status and ideal paternal and maternal warmth, reasoning, and monitoring controlling for adolescent age

	Fathers' parenting				
Parenting ideal	*F*	*df*	*p*	M_{group1}	M_{group2}
Warmth					
Adolescent age	0.66	1, 83	.42		
Generational status	0.91	1, 83	.34	6.38	6.22
Reasoning					
Adolescent age	0.06	1, 83	.81		
Generational status	0.33	1, 83	.57	6.15	6.04
Monitoring					
Adolescent age	0.14	1, 83	.71		
Generational status	0.02	1, 83	.89	5.96	5.92
	Mothers' parenting				
Parenting ideal	*F*	*df*	*p*	M_{group1}	M_{group2}
Warmth					
Adolescent age	1.22	1, 88	.27		
Generational status	1.44	1, 88	.23	6.44	6.26
Reasoning					
Adolescent age	0.07	1, 88	.79		
Generational status	0.01	1, 88	.94	6.10	6.09
Monitoring					
Adolescent age	0.63	1, 88	.43		
Generational status	0.01	1, 88	.93	5.96	5.98

Note. group 1 = first generation adolescents, group 2 = second/1.5 generation adolescents.

Chi square tests of independence were conducted to evaluate the hypothesis (2c) that second/1.5 generation adolescents would desire lower levels of harsh discipline compared to first generation adolescents. Separate tests were conducted for younger (ages 8 to 11) and older (ages 12 to 15) adolescents in light of the significant relation between age and generational status. Contrary to hypotheses, for both younger and older adolescents, generational status was not significantly related to ideal harsh discipline, χ^2s < 1.60, *p*s > .05 (see Table 11).

Table 11

Chi-square statistics of generational status and ideal harsh discipline behaviours, controlling for adolescent age

	Younger adolescents (ages 8 to 11)							
					First generation		Second/1.5 generation	
Ideal harsh discipline behaviour	χ^2	*df*	N	*p*	% Presence	% Absence	% Presence	% Absence
Fathers' parenting								
Spank or slap	0.34	1	33	.56	50.0	50.0	60.9	39.1
Lock out of house	0.05	1	32	.82	22.2	77.8	26.1	73.9
Hit with object	0.19	1	32	.66	20.0	80.0	27.3	72.7
Mothers' parenting								
Spank or slap	1.56	1	32	.21	40.0	60.0	63.6	36.4
Lock out of house	1.59	1	33	.21	10.0	90.0	30.4	69.6
Hit with object	0.14	1	33	.71	20.0	80.0	26.1	73.9
	Older adolescents (ages 12 to 15)							
					First generation		Second/1.5 generation	
Ideal harsh discipline behaviour	χ^2	*df*	N	*p*	% Presence	% Absence	% Presence	% Absence
Fathers' parenting								
Spank or slap	0.85	1	62	.36	31.6	68.3	20.8	79.2
Lock out of house	0.74	1	62	.39	21.1	78.9	12.5	87.5
Hit with object	0.44	1	61	.51	18.9	81.1	12.5	87.5
Mothers' parenting								
Spank or slap	0.13	1	61	.71	39.5	60.5	34.8	65.2
Lock out of house	0.12	1	61	.73	21.1	78.9	17.4	82.6
Hit with object	1.16	1	60	.28	18.9	81.1	8.7	91.3

Length of residence. Pearson correlation tests were conducted to examine whether length of residence was significantly related to ideal paternal and maternal warmth, reasoning, and monitoring. One-sided tests were conducted for ideal warmth and reasoning (hypotheses 2d, 2e), and two-tailed tests were conducted for ideal monitoring (see Table 12). Adolescents' length of residence in Canada was not related to their ratings of ideal warmth, reasoning, and monitoring from both their fathers and mothers.

Table 12

Correlations between adolescent length of residence and ideal parental warmth, reasoning, and monitoring

	Length of residence	
	Fathers' parenting	Mothers' parenting
Ideal warmth	-.06	-.12
Ideal reasoning	-.07	-.06
Ideal monitoring	-.04	-.06

Note. One-tailed significance is reported for relations between length of residence and ratings of ideal warmth and reasoning.

Logistic regressions were conducted to examine whether length of residence was significantly related to reports of ideal paternal and maternal harsh discipline behaviours (hypothesis 2f). Contrary to expectations, length of residence did not significantly predict adolescent reports of ideal paternal and maternal spanking, locking out of the house, and hitting with an object, Wald χ^2s < .40, *p*s > .05 (see Table 13).

Table 13

Summary of logistic regressions for ideal harsh discipline behaviours on length of residence

	Ideal fathers' harsh discipline behaviours					
	B	S.E.	Wald Chi-Square	df	*p*	Odds Ratio [95% CI]
Spank or slap						
Length of residence	0.01	.05	0.10	1	.93	1.01 [0.91, 1.11]
Lock out of the house						
Length of residence	-0.03	.06	0.24	1	.62	0.07 [0.86, 1.10]
Hit with an object						
Length of residence	-0.04	.07	0.39	1	.53	0.96 [0.85, 1.10]
	Ideal mothers' harsh discipline behaviours					
	B	S.E.	Wald Chi-Square	df	*p*	Odds Ratio [95% CI]
Spank or slap						
Length of residence	0.02	.05	0.14	1	.71	1.02 [0.92, 1.12]
Lock out of the house						
Length of residence	0.01	.06	0.01	1	.92	1.01 [0.89, 1.13]
Hit with an object						
Length of residence	-0.03	.07	0.22	1	.64	0.97 [0.85, 1.10]

Cultural orientation. Relations between Chinese and Canadian orientation and ideal paternal and maternal warmth, reasoning, and monitoring (hypotheses 3a, 3b, 3d, 3e) were examined with correlations. Correlations involving Chinese orientation controlled for adolescent gender, and correlations involving Canadian orientation controlled for adolescent age and gender. One-tailed tests were conducted for ideal warmth and reasoning, and two-tailed tests were conducted for ideal monitoring. The partial correlations are presented in Table 14. Consistent with hypotheses, Canadian orientation was significantly positively correlated with ideal paternal and maternal reasoning. However, Canadian orientation was not related to ideal warmth or monitoring. Contrary to hypotheses, Chinese orientation was marginally positively correlated to maternal ideal warmth. Chinese orientation was not related to ideal reasoning or monitoring.

Table 14
Partial correlations between cultural orientation and parenting ideals

Variable	Chinese orientation	Canadian orientation
Ideal paternal parenting		
Warmth	.15	.11
Reasoning	.01	.22*
Monitoring	.14	.19
Ideal maternal parenting		
Warmth	.18†	.14
Reasoning	.02	.24*
Monitoring	.17	.20

Note. One-tailed tests were conducted for relations between cultural orientation variables and ideal warmth and reasoning. Correlations with Chinese orientation controlled for adolescent gender. Correlations with Canadian orientation controlled for adolescent age and gender. * $p < .05$, † $p = .05$

Hierarchical logistic regressions were conducted to examine whether Chinese and Canadian orientations were related to reports of ideal paternal and maternal harsh discipline behaviour (hypotheses 3c, 3f). Separate regressions were conducted for ratings of fathers' and

mothers' parenting and for each of the three behaviours, resulting in six analyses. In each regression, the first step estimated a constant, the second step estimated a constant and regression weights for covariates, and the third step estimated a constant and regression weights for covariates and cultural orientation. Results are presented in Tables 15 and 16. Results revealed that Chinese and Canadian orientation were not significantly related to ideal paternal and maternal harsh discipline behaviours after controlling for covariates. That is, contrary to expectations, adolescents who were more strongly oriented toward Chinese culture were not more likely to report the presence of paternal and maternal spanking, locking out of the house, and hitting with an object as ideal forms of discipline than those who were less strongly oriented toward Chinese culture. Similarly, adolescents who were more strongly oriented toward Canadian culture were not less likely to report the presence of paternal and maternal spanking, locking out of the house, and hitting with an object as ideal forms of discipline than those who were less strongly oriented toward Canadian culture.

Table 15

Summary of hierarchical logistic regression analyses of ideal harsh discipline behaviours on Chinese orientation, controlling for adolescent gender

	B	S.E.	Wald Chi-Square	df	*p*	Odds Ratio [95% CI]
Fathers' ideal parenting						
Spank or slap	-0.06	0.26	0.05	1	.82	0.94 [0.57, 1.56]
Lock out of the house	0.34	0.33	1.10	1	.29	1.41 [0.74, 2.68]
Hit with an object	0.16	0.34	0.22	1	.64	1.17 [0.60, 2.29]
Mothers' ideal parenting						
Spank or slap	-0.31	0.26	1.48	1	.22	0.73 [0.45, 1.21]
Lock out of the house	0.19	0.33	0.33	1	.57	1.21 [0.63, 2.30]
Hit with an object	0.19	0.35	0.30	1	.59	1.21 [0.61, 2.42]

Table 16

Summary of hierarchical logistic regression analyses for ideal harsh discipline behaviours on Canadian orientation, controlling for adolescent age and gender

	B	S.E.	Wald Chi-Square	df	*p*	Odds Ratio [95% CI]
Fathers' ideal parenting						
Spank or slap	-0.05	0.43	0.01	1	.91	0.95 [0.41, 2.23]
Lock out of the house	-0.22	0.50	0.19	1	.66	0.80 [0.30, 2.15]
Hit with an object	-0.21	0.52	0.16	1	.69	0.81 [0.29, 2.26]
Mothers' ideal parenting						
Spank or slap	-0.34	0.41	0.68	1	.41	0.71 [0.32, 1.60]
Lock out of the house	-0.57	0.49	1.33	1	.25	0.56 [0.21, 1.49]
Hit with an object	-0.25	0.53	0.23	1	.63	0.77 [0.28, 2.18]

Relations between Parenting Mismatches and Adolescent Outcomes

Parental warmth, reasoning, and monitoring. The next set of analyses evaluated whether mismatches in perceived and ideal parenting predicted adolescent depression and self-esteem (hypotheses 4a-d, 4g, 4h) and whether there were cultural differences in these predictive relations (hypothesis 5). Two statistical approaches were used to index the degree of mismatch between perceived and ideal parenting. In the first method, difference scores between perceived and ideal parenting were calculated. Second, in light of some debates about the usefulness of difference scores in terms of methodology and interpretation (Edwards, 2001), mismatches were also estimated with interaction terms between perceived and ideal parenting in regression analyses.

Relations between parenting mismatches in warmth, reasoning, and monitoring and adolescent outcomes using difference scores. To compute difference scores, perceived parenting scores were subtracted from ideal parenting scores. Means and standard deviations for these difference scores are presented in Table 17. Positive scores indicate that adolescents desire

higher levels of a parenting behaviour than they currently perceive. Negative scores indicate that adolescents desire lower levels of a parenting behaviour than they currently perceive. For all parenting behaviours, difference scores were more strongly correlated with perceived parenting than ideal parenting. This is likely due to the larger variance observed in perceived parenting variables compared to ideal parenting variables. Across samples and parenting behaviours, difference scores were positive, with the exception of maternal monitoring (see Table 17). That is, on average, Chinese and Canadian adolescents desired higher levels of warmth and reasoning than they perceived their fathers and mothers were providing, and more monitoring than they perceived from their fathers. As the one exception, on average, adolescents in both cultural groups desired lower levels of maternal monitoring than they currently perceived.

Table 17

Descriptive statistics of mismatches between perceived and ideal parental warmth, reasoning, and monitoring (difference scores)

Mismatch variable	Mean (SD)	Median	Skewness	Kurtosis
Chinese sample				
Fathers' parenting				
Warmth	0.65 (0.92)	0.60	0.62	0.78
Reasoning	0.81 (1.16)	0.75	-0.05	0.70
Monitoring	0.19 (1.01)	0.00	0.24	-0.31
Mothers' parenting				
Warmth	0.39 (0.82)	0.20	0.12	1.71
Reasoning	0.66 (0.94)	0.63	-0.04	0.41
Monitoring	-0.26 (0.92)	0.00	-1.18	2.11
Canadian sample				
Fathers' parenting				
Warmth	0.71 (1.09)	0.40	0.28	0.51
Reasoning	0.75 (1.16)	0.50	-0.09	0.69
Monitoring	0.64 (1.43)	0.00	1.02	1.17
Mothers' parenting				
Warmth	0.47 (.82)	0.33	0.30	1.73
Reasoning	0.57 (1.10)	0.50	0.62	2.03
Monitoring	-0.12 (.79)	0.00	-0.83	1.53

Difference scores were compared across the Chinese and Canadian samples. Controlling for adolescent age and gender, ANCOVAs revealed no cultural group differences in mismatches in maternal and paternal warmth and reasoning, or in maternal monitoring, Fs < 1.26, ps > .26. The only instance of cultural group differences was in mismatches in paternal monitoring, $F(1, 127) = 4.95$, $p = .03$. Canadian adolescents reported significantly higher levels of mismatches in paternal monitoring ($M = 0.66$, $SD = 1.44$) than Chinese adolescents ($M = 0.19$, $SD = 1.01$). This

indicates that Canadian adolescents desired higher levels of monitoring from their fathers than they received to a greater extent than Chinese adolescents.

Hierarchical multiple regressions were conducted to examine whether mismatches significantly predict adolescent depressive symptoms and self-esteem, and whether these relations differ between cultural groups. Each outcome was separately regressed on paternal and maternal warmth, reasoning, and monitoring, resulting in 12 separate analyses. In each regression, adolescent age, adolescent gender, and perceived parenting were entered as control variables in step 1. Cultural group was also entered in step 1. In step 2, the difference score was entered to examine whether parenting mismatches were predictive of adolescent well-being. This step evaluated the hypotheses that greater magnitude of mismatches in warmth, reasoning, and monitoring would be related to higher levels of depression and lower levels of self-esteem. In step 3, a mismatch x cultural group interaction term was entered to examine whether there were cultural group differences in the relations between parenting mismatches and adolescent well-being. This step evaluated the hypothesis that the relations between parenting mismatches and adolescent outcomes would be stronger for Chinese adolescents compared to Canadian adolescents. Summaries of all steps of regressions for adolescent depressive symptoms and self-esteem are presented in Tables 18 and 19, respectively.

Table 18

Summary of hierarchical regression analyses for mismatches in parental warmth, reasoning, and monitoring (difference scores) predicting adolescent depressive symptoms

	Fathers' parenting			
Variable	ΔR^2	*B*	*SE*	β
Mismatches in warmth (N=134)				
Step 1: Covariates	.14**			
Step 2: Mismatches in warmth[a]	.003	-0.67	1.03	-.08
Step 3: Mismatches x Sample[b]	.00	0.23	1.48	.02
Mismatches in reasoning (N=123)				
Step 1: Covariates	.11**			
Step 2: Mismatches in reasoning[a]	.02	-1.81	1.16	-.21
Step 3: Mismatches x Sample[b]	.02	2.47	1.72	.15
Mismatches in monitoring (N=128)				
Step 1: Covariates	.17***			
Step 2: Mismatches in monitoring[a]	.04*	-2.36	0.10	-.27*
Step 3: Mismatches x Sample[b]	.005	-1.29	1.43	-.10
	Mothers' parenting			
Variable	ΔR^2	*B*	*SE*	β
Mismatches in warmth (N=134)				
Step 1: Covariates	.13**			
Step 2: Mismatches in warmth[a]	.001	-0.32	1.00	-.04
Step 3: Mismatches x Sample[b]	.02	2.45	1.46	.17
Mismatches in reasoning (N=132)				
Step 1: Covariates	.15***			
Step 2: Mismatches in reasoning[a]	.01	-1.36	0.99	-.15
Step 3: Mismatches x Sample[b]	.01	1.79	1.49	.13
Mismatches in monitoring (N=135)				
Step 1: Covariates	.07*			
Step 2: Mismatches in monitoring[a]	.05**	-1.89	0.72	-.23**
Step 3: Mismatches x Sample[b]	.004	1.17	1.57	.07

[a] Statistics from Step 2 are reported. [b] Statistics from Step 3 are reported. * $p < .05$, ** $p < .01$, *** $p < .001$

Depressive symptoms. Statistics from step 2 of each regression were examined to determine whether parenting mismatches predicted adolescent outcomes across samples (see Table 18). With respect to the prediction of adolescent depressive symptoms, for fathers' parenting, only mismatches in monitoring significantly predicted adolescent depressive symptoms above and beyond age, gender, and perceived paternal monitoring, $F(1, 122) = 6.73$, $p = .01$. Similarly, mismatches in maternal monitoring significantly predicted adolescent depressive symptoms above and beyond age, gender, and perceived maternal monitoring, $F(1, 129) = 6.95$, $p = .009$. These results indicate that adolescents who reported receiving more monitoring from their fathers and mothers than they desired were more likely to exhibit higher levels of depressive symptoms compared to adolescents who had no mismatches or mismatches in the opposite direction.

Mismatches in paternal and maternal warmth and reasoning did not significantly predict variability in adolescent depressive symptoms above and beyond age, gender, and perceived parenting, Fs < 2.45, ps > .12.

Table 19

Summary of hierarchical regression analyses for mismatches in parental warmth, reasoning, and monitoring (difference scores) predicting adolescent self-esteem

	Fathers' parenting			
Variable	ΔR^2	*B*	*SE*	β
Mismatches in warmth (N=135)				
Step 1: Covariates	.15***			
Step 2: Mismatches in warmth[a]	.01	0.09	.06	.16
Step 3: Mismatches x Sample[b]	.00	-0.01	.09	-.01
Mismatches in reasoning (N=125)				
Step 1: Covariates	.10*			
Step 2: Mismatches in reasoning[a]	.02	0.12	.07	.22
Step 3: Mismatches x Sample[b]	.01	-0.13	.11	-.12
Mismatches in monitoring (N=129)				
Step 1: Covariates	.17***			
Step 2: Mismatches in monitoring[a]	.04*	0.14	.06	.26*
Step 3: Mismatches x Sample[b]	.004	0.07	.09	.09
	Mothers' parenting			
Variable	ΔR^2	*B*	*SE*	β
Mismatches in warmth (N=136)				
Step 1: Covariates	.10**			
Step 2: Mismatches in warmth[a]	.01	0.07	.06	.13
Step 3: Mismatches x Sample[b]	.02	-0.16	.10	-.17
Mismatches in reasoning (N=134)				
Step 1: Covariates	.14***			
Step 2: Mismatches in reasoning[a]	.003	0.04	.06	.08
Step 3: Mismatches x Sample[b]	.02	-0.16	.10	-.19
Mismatches in monitoring (N=137)				
Step 1: Covariates	.08*			
Step 2: Mismatches in monitoring[a]	.03*	0.11	.05	.19*
Step 3: Mismatches x Sample[b]	.002	-0.06	.10	-.06

[a] *B, SE, β* from Step 2 are reported. [b] *B, SE, β* from Step 3 are reported. * $p < .05$, ** $p < .01$, *** $p < .001$

Self-esteem. With respect to the prediction of self-esteem, mismatches in monitoring once again were significant predictors (see Table 19). Specifically, mismatches in paternal monitoring significantly predicted adolescent self-esteem above and beyond age, gender, and perceived paternal monitoring, $F(1, 123) = 6.07$, $p = .02$. Similarly, mismatches in maternal monitoring significantly predicted adolescent self-esteem above and beyond age, gender, and perceived maternal monitoring, $F(1, 131) = 4.88$, $p = .03$. Similar to relations with depressive symptoms, the results indicate that adolescents who reported receiving too much monitoring were more likely to exhibit lower levels of self-esteem compared to adolescents who had no mismatches or mismatches in the other direction.

Contrary to expectations, mismatches in paternal and maternal warmth and reasoning did not significantly predict variability in adolescent self-esteem above and beyond age, gender, and perceived parenting, Fs < 2.84, ps > .09.

Statistics from step 3 of each regression were examined to determine whether there were cultural group differences in the predictive relations between parenting mismatches and adolescent outcomes. Results indicated that interactions between parenting mismatches and cultural group did not significantly predict adolescent depressive symptoms and self-esteem above and beyond step 2 models, Fs < 3.23, ps > .07. Thus, there was no evidence that parenting mismatches were more predictive of adjustment in one cultural group than the other.

Examining relations between parenting mismatches and adolescent outcomes using interaction terms between perceived and ideal parenting. A second set of hierarchical multiple regressions were conducted with parenting mismatches operationalized by interaction terms between perceived and ideal parenting. These analyses present an alternative statistical approach to testing the hypothesis that mismatches in perceived versus ideal parenting are predictive of

adolescent adjustment. In each of these 12 regression models, adolescent age and gender were entered as control variables in step 1 along with cultural group. Main effects for perceived and ideal parenting were entered in step 2. In step 3, all possible two-way interaction terms were entered (i.e., perceived x ideal parenting, perceived parenting x sample, ideal parenting x sample) to allow for evaluation of a perceived x ideal parenting x cultural group three-way interaction term in the final step. In all but one analysis, changes in R^2 were not significant from step 3 to step 4 models, Fs < 2.34, ps > .12. That is, the three-way interaction term did not significantly predict adolescent adjustment above and beyond the model with two-way interactions. This means that, contrary to expectations, the relations between parenting mismatches and adolescent depressive symptoms and self-esteem were comparable in both cultural groups. The one exception was in the regression for maternal monitoring as a predictor of depressive symptoms. Because there was only one significant three-way interaction, the regression models were re-run including only the two-way interaction term between perceived and ideal parenting.

Depressive symptoms. Tables 20 and 21 display the change in R^2, unstandardized regression coefficients (B), standard errors for B, and standardized regression coefficients (β) for the analyses predicting adolescent depressive symptoms. In step 1 of the models, the covariates of adolescent age, gender, and cultural group did not significantly explain variability in depressive symptoms.

Table 20

Summary of hierarchical regressions for adolescent depressive symptoms on mismatches in paternal warmth, reasoning, and monitoring (interaction terms)

Variable	ΔR^2	*B*	*SE*	*β*
Paternal warmth (N = 138)				
Step 1	.02			
Adolescent age		0.13	0.77	.02
Adolescent gender		-1.84	1.51	-.11
Sample		-2.49	1.69	-.13
Step 2	.11***			
Adolescent age		-0.57	0.77	-.07
Adolescent gender		-1.66	1.49	-.10
Sample		-2.50	1.61	-.13
Perceived warmth		-1.85	0.86	-.20*
Ideal warmth		-1.81	0.80	-.21*
Step 3	.003			
Adolescent age		-0.55	0.77	-.06
Adolescent gender		-1.65	1.49	-.10
Sample		-2.46	1.61	-.13
Perceived warmth		-1.78	0.87	-.20*
Ideal warmth		-2.07	0.90	-.24*
Perceived x Ideal warmth		-0.57	0.87	-.06
Paternal reasoning (N = 124)				
Step 1	.03			
Adolescent age		-0.21	-0.80	-.02
Adolescent gender		-1.75	1.57	-.10
Sample		-3.10	1.76	-.16
Step 2	.09***			
Adolescent age		-0.56	0.79	-.06
Adolescent gender		-1.65	1.54	-.10
Sample		-2.30	1.70	-.12
Perceived reasoning		-2.20	0.92	-.23*
Ideal reasoning		-1.34	0.84	-.15

Step 3	.001			
Adolescent age		-0.52	0.80	-.06
Adolescent gender		-1.65	1.55	-.10
Sample		-2.26	1.71	-.12
Perceived reasoning		-2.22	0.93	-.23*
Ideal reasoning		-1.35	0.84	-.15
Perceived x Ideal reasoning		-0.31	0.88	-.03
Paternal monitoring (N = 133)				
Step 1	.03			
Adolescent age		0.29	0.80	.03
Adolescent gender		-2.06	1.56	-.12
Sample		-2.55	1.75	-.13
Step 2	.21***			
Adolescent age		-0.37	0.72	-.04
Adolescent gender		-1.41	1.43	-.08
Sample		-3.52	1.61	-.18*
Perceived monitoring		-1.66	0.91	-.18
Ideal monitoring		-2.92	0.86	-.33*
Step 3	.004			
Adolescent age		-0.35	0.73	-.04
Adolescent gender		-1.36	1.43	-.08
Sample		-3.51	1.61	-.18*
Perceived monitoring		-1.69	0.91	-.19†
Ideal monitoring		-3.26	0.97	-.37*
Perceived x Ideal monitoring		-0.55	0.71	-.07

Note. For adolescent gender, males were coded 0, females were coded 1. For sample, the Chinese sample was coded 0, the Canadian sample was coded 1. * $p < .05$, *** $p < .001$, † $p < .07$

Table 21

Summary of hierarchical regressions for adolescent depressive symptoms on mismatches in maternal warmth, reasoning, and monitoring (interaction terms)

Variable	ΔR^2	*B*	*SE*	*β*
Maternal warmth (N = 141)				
Step 1	.02			
Adolescent age		0.14	0.76	.02
Adolescent gender		1.48	1.48	-.09
Sample		1.64	1.64	-.13
Step 2	.12***			
Adolescent age		-0.63	0.75	-.07
Adolescent gender		-0.75	1.45	-.04
Sample		-1.82	1.56	-.10
Perceived warmth		-2.11	0.82	-.25*
Ideal warmth		-1.44	0.83	-.17
Step 3	.02			
Adolescent age		-0.58	0.75	-.07
Adolescent gender		-0.52	1.44	-.03
Sample		-1.69	1.55	-.09
Perceived warmth		-2.34	0.83	-.27*
Ideal warmth		-2.21	-0.93	-.26*
Perceived x Ideal warmth		-1.18	0.65	-.18
Maternal reasoning (N = 135)				
Step 1	.02			
Adolescent age		0.18	0.79	.02
Adolescent gender		-1.40	1.54	-.08
Sample		-2.82	1.69	-.15
Step 2	.11***			
Adolescent age		-0.41	0.77	-.05
Adolescent gender		-0.69	1.50	-.04
Sample		-1.52	1.64	-.08
Perceived reasoning		-2.27	0.83	-.26**
Ideal reasoning		-1.28	0.83	-.14

Step 3	.00			
Adolescent age		-0.42	0.78	-.05
Adolescent gender		-0.74	1.51	-.04
Sample		-1.48	1.65	-.08
Perceived reasoning		-2.26	0.83	-.26**
Ideal reasoning		-1.33	0.86	-.15
Perceived x Ideal reasoning		-0.21	0.86	-.02
Maternal monitoring (N = 139)				
Step 1	.02			
Adolescent age		0.27	0.78	.03
Adolescent gender		-1.35	1.50	-.08
Sample		-2.52	1.66	-.14
Step 2	.18***			
Adolescent age		-0.36	0.72	-.04
Adolescent gender		0.37	1.40	.02
Sample		-2.51	1.52	-.14
Perceived monitoring		-0.98	0.87	-.11
Ideal monitoring		-3.14	0.87	-.36***
Step 3	.01			
Adolescent age		-0.21	0.72	-.02
Adolescent gender		0.37	1.40	.02
Sample		-2.76	1.52	-.15
Perceived monitoring		-0.58	0.91	-.07
Ideal monitoring		-2.71	0.91	-.31**
Perceived x Ideal monitoring		0.77	0.51	.15

Note. For adolescent gender, males were coded 0, females were coded 1. For sample, the Chinese sample was coded 0, the Canadian sample was coded 1. * $p < .05$, ** $p < .01$, *** $p < .001$

The step 2 models evaluate the main effects of perceived and ideal parenting on depressive symptoms. As shown in Table 20, at this step, higher levels of perceived and ideal warmth, higher levels of perceived reasoning, and higher levels of ideal monitoring were all associated with fewer depressive symptoms. The results for mothers were fairly similar.

Specifically, as shown in Table 21 step 2 models, higher perceived warmth, higher perceived reasoning, and higher ideal monitoring were all associated with fewer depressive symptoms

The step 3 models add the interaction term between perceived and ideal parenting. This step evaluates the hypothesis that the discrepancy between perceived and ideal parenting is a significant predictor of adjustment. Contrary to this expectation, there were no instances in which the interaction between perceived and ideal parenting predicted depressive symptoms for fathers or mothers.

Finally, as mentioned earlier, there was one significant three-way interaction in the prediction of depressive symptoms based on maternal monitoring. In this instance, the perceived monitoring x ideal monitoring x sample three-way interaction significantly predicted adolescent depressive symptoms above and beyond the model with two-way interactions, $\beta = .35$, $p = .004$, $F(1, 129) = 7.76$, $p = .006$. These findings indicate that the associations between mismatches in maternal monitoring and depressive symptoms differed between Chinese and Canadian adolescents. This significant interaction was probed by first repeating the test for two-way interactions in the Chinese and Canadian groups separately. These results showed perceived and ideal maternal monitoring significantly interacted to predict depressive symptoms in the Canadian group only. Thus, these results do not support the hypothesis that mismatches would be more predictive of adjustment in the Chinese sample.

Self-esteem. Tables 22 and 23 display the results of the regression models predicting adolescent self-esteem. The Step 1 models revealed that cultural group significantly predicted variability in adolescent self-esteem. Canadian adolescents reported higher self-esteem than Chinese adolescents.

Table 22

Summary of hierarchical regressions for adolescent self-esteem on mismatches in paternal warmth, reasoning, and monitoring (interaction terms)

Variable	ΔR^2	*B*	*SE*	*β*
Paternal warmth (N = 139)				
Step 1	.06			
Adolescent age		-0.03	0.05	-.05
Adolescent gender		0.15	0.09	.14
Sample		0.26	0.10	.23
Step 2	.12***			
Adolescent age		0.03	0.05	.05
Adolescent gender		0.15	0.09	.14
Sample		0.26	0.10	.23**
Perceived warmth		0.16	0.05	.27**
Ideal warmth		0.08	0.05	.15
Step 3	.03*			
Adolescent age		0.02	0.05	.04
Adolescent gender		0.16	0.09	.14
Sample		0.26	0.10	.22**
Perceived warmth		0.14	0.05	.24*
Ideal warmth		0.14	0.05	.25*
Perceived x Ideal warmth		0.11	0.05	.19*
Paternal reasoning (N = 127)				
Step 1	.05			
Adolescent age		-0.03	0.05	-.05
Adolescent gender		0.15	0.10	.14
Sample		0.25	0.11	.21*
Step 2	.06*			
Adolescent age		-0.01	0.05	-.02
Adolescent gender		0.15	0.10	.14
Sample		0.22	0.11	.18*
Perceived reasoning		0.11	0.06	.18†
Ideal reasoning		0.07	0.05	.13

Step 3	.00			
Adolescent age		-0.01	0.05	-.01
Adolescent gender		0.15	0.10	.14
Sample		0.22	0.11	.19*
Perceived reasoning		0.11	0.06	.18†
Ideal reasoning		0.07	0.05	.13
Perceived x Ideal reasoning		-0.01	0.06	-.01
Paternal monitoring (N = 134)				
Step 1	.06*			
Adolescent age		-0.04	0.05	-.08
Adolescent gender		0.19	0.10	.17*
Sample		0.25	0.10	.22*
Step 2	.13***			
Adolescent age		-0.01	0.05	-.01
Adolescent gender		0.18	0.09	.16†
Sample		0.31	0.10	.26**
Perceived monitoring		0.13	0.06	.23*
Ideal monitoring		0.10	0.05	.18
Step 3	.02			
Adolescent age		-0.01	0.05	.02
Adolescent gender		0.17	0.09	.16†
Sample		0.31	0.10	.26**
Perceived monitoring		0.13	0.06	.23*
Ideal monitoring		0.14	0.06	.27*
Perceived x Ideal monitoring		0.07	0.05	.16

Note. For adolescent gender, males were coded 0, females were coded 1. For sample, the Chinese sample was coded 0, the Canadian sample was coded 1. * $p < .05$, ** $p < .01$, *** $p < .001$, † $p < .06$

Table 23

Summary of hierarchical regressions for adolescent self-esteem on mismatches in maternal warmth, reasoning, and monitoring (interaction terms)

Variable	ΔR^2	*B*	*SE*	*B*
Maternal warmth (N = 143)				
Step 1	.04			
Adolescent age		-0.03	0.05	-.06
Adolescent gender		0.12	0.09	.11
Sample		0.22	0.10	.20*
Step 2	.06*			
Adolescent age		-0.002	0.05	-.004
Adolescent gender		0.07	0.09	.06
Sample		0.20	0.10	.17*
Perceived warmth		0.07	0.05	.13
Ideal warmth		0.09	0.05	.17
Step 3	.03*			
Adolescent age		-0.005	0.05	-.01
Adolescent gender		-0.05	0.09	.04
Sample		-.18	0.10	.16
Perceived warmth		0.09	0.05	.16
Ideal warmth		0.15	0.06	.28*
Perceived x Ideal warmth		0.09	0.04	.21*
Maternal reasoning (N = 137)				
Step 1	.06*			
Adolescent age		-0.04	0.05	-.07
Adolescent gender		0.14	0.09	.13
Sample		0.27	0.10	.24*
Step 2	.06*			
Adolescent age		-0.01	0.05	-.01
Adolescent gender		0.11	0.09	.10
Sample		0.22	0.10	.19*
Perceived reasoning		0.11	0.05	.20*
Ideal reasoning		0.04	0.05	.08

Step 3	.005			
Adolescent age		-0.004	0.05	-.01
Adolescent gender		-.12	0.09	.11
Sample		-.21	0.10	.19*
Perceived reasoning		0.11	0.05	.20*
Ideal reasoning		0.06	0.05	.10
Perceived x Ideal reasoning		0.05	0.05	.08
Maternal monitoring (N = 141)				
Step 1	.04			
Adolescent age		-0.05	0.05	-.08
Adolescent gender		0.12	0.09	.11
Sample		0.23	0.10	.20*
Step 2	.08**			
Adolescent age		-0.02	0.05	0.03
Adolescent gender		0.05	0.09	.04
Sample		0.23	0.10	.20*
Perceived monitoring		0.05	0.06	.09
Ideal monitoring		0.12	0.06	.23*
Step 3	.005			
Adolescent age		-0.01	0.05	-.03
Adolescent gender		0.05	0.09	.04
Sample		0.22	0.10	.19*
Perceived monitoring		0.07	0.06	.12
Ideal monitoring		0.14	0.06	.26*
Perceived x Ideal monitoring		0.03	0.03	.09

Note. For adolescent gender, males were coded 0, females were coded 1. For sample, the Chinese sample was coded 0, the Canadian sample was coded 1. * $p < .05$, ** $p < .01$

In the Step 2 models, for fathers, higher levels of perceived warmth and monitoring predicted higher levels of self-esteem; higher levels of perceived reasoning also predicted higher levels of self-esteem at a trend level of significance. For mothers' parenting, higher levels of

perceived reasoning and higher levels of ideal monitoring were associated with higher levels of self-esteem.

Results from step 3 models showed two instances in which the interaction between perceived and ideal parenting predicted self-esteem. Specially, the interaction between perceived and ideal warmth was significantly associated with self-esteem for both fathers and mothers. These interactions were probed by examining the regression slopes of levels of perceived warmth predicting self-esteem at three levels (low, medium, high) of ideal warmth. As shown in Figure 1, at high levels of ideal paternal warmth, as levels of perceived warmth increased, self-esteem significantly increased, $B = 0.23$, $SE = 0.07$, $p = .001$. Similarly, at moderate levels of ideal paternal warmth, as levels of perceived warmth increased, self-esteem significantly increased, $B = 0.11$, $SE = 0.05$, $p = .035$. At low levels of ideal paternal warmth, however, levels of perceived warmth were not related to levels of self-esteem, $B = -0.03$, $SE = 0.07$, $p = .69$.

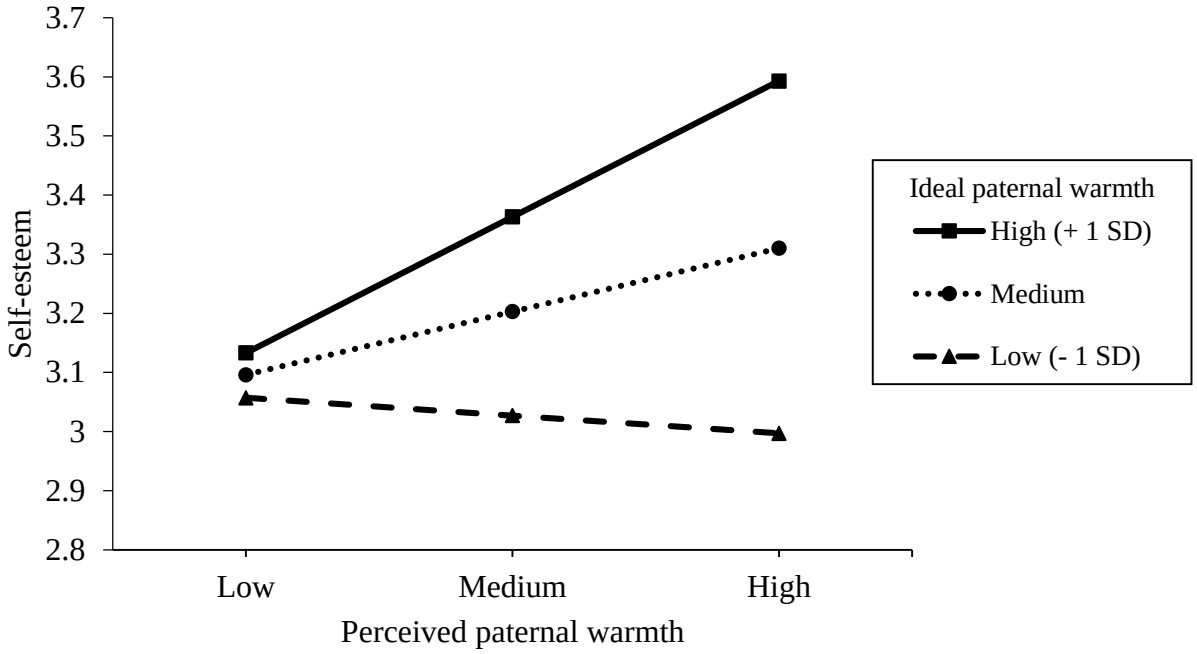

Figure 1. Levels of self-esteem of adolescents experiencing matches and mismatches in paternal warmth.

A similar pattern emerged for maternal warmth (see Figure 2). At high levels of ideal maternal warmth, as levels of perceived warmth increased, self-esteem significantly increased, $B = 0.19$, $SE = .07$, $p = .009$. At moderate levels of ideal maternal warmth, as levels of perceived warmth increased, self-esteem marginally increased, $B = 0.09$, $SE = .05$, $p = .07$. But at low levels of perceived maternal warmth, levels of ideal warmth were not related to levels of self-esteem, $B = -0.004$, $SE = 0.06$, $p = .95$. Consistent with expectations, adolescents who reported high levels of both perceived and ideal warmth, thus reporting a parenting match, had higher levels of self-esteem than adolescents who reported mismatches in which they received too much or too little warmth from their fathers and mothers. Interestingly, when adolescents desire low levels of warmth, the amount of warmth parents are perceived to provide is unrelated to self-esteem; higher warmth from parents does not benefit children when this does not match children's expectations.

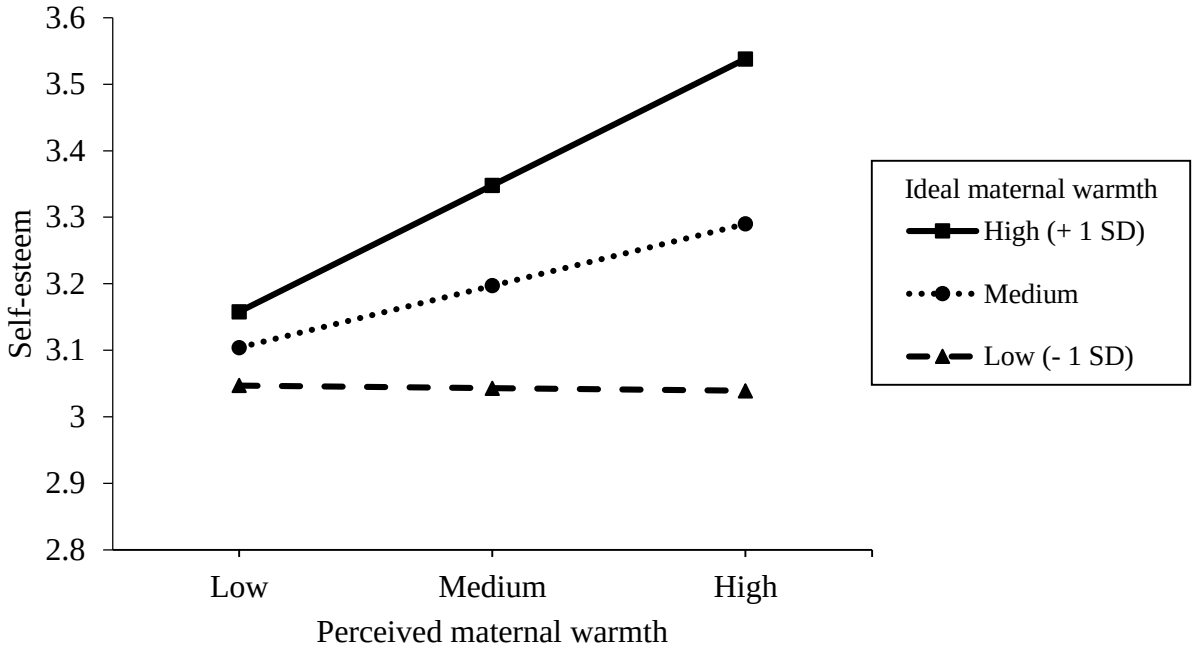

Figure 2. Levels of self-esteem of adolescents experiencing matches and mismatches in maternal warmth.

Parental harsh discipline behaviours. Mismatches in harsh discipline behaviours were operationalized by categorizing adolescents into four groups: matches in which adolescents indicated presence of harsh discipline behaviours for both perceived and ideal parenting, matches in which adolescents indicated absence of harsh discipline behaviours for both perceived and ideal parenting, mismatches in which adolescents indicated presence of perceived harsh discipline behaviours and absence of ideal harsh discipline behaviours (i.e., receiving too much harsh discipline), and mismatches in which adolescents indicated absence of perceived harsh discipline behaviours and presence of ideal harsh discipline behaviours (i.e., receiving too little harsh discipline). Frequencies and percentages of adolescents in each cultural group are presented in Table 24. There was more variability in matches and mismatches in the Chinese sample than in the Canadian sample. For the most part, the majority (or close to the majority) of

adolescents across the two samples reported matches in which adolescents desired and parents provided no harsh discipline behaviours. The exception to this was mothers' spanking in the Chinese sample. Approximately one third of Chinese adolescents reported matches in which they preferred and parents provided some spanking. Very few adolescents in the Canadian sample reported mismatches or matches in which there was presence of harsh discipline behaviours, with numerous cell sizes between 1 and 4 participants only.

Table 24

Frequencies and percentages of matches and mismatches of parental harsh discipline behaviours

	Chinese sample			
Variable	Match (Presence)[a]	Match (Absence)[b]	Mismatch (Too little)[c]	Mismatch (Too much)[d]
Fathers' parenting				
Spank or slap	23 (24.0%)	47 (49.5%)	13 (13.7%)	12 (12.6%)
Lock out of house	7 (7.4%)	70 (74.5%)	12 (12.8%)	5 (5.3%)
Hit with an object	9 (9.8%)	63 (68.5%)	9 (9.8%)	11 (12.0%)
Mothers' parenting				
Spank or slap	29 (31.2%)	35 (37.6%)	12 (12.9%)	17 (18.3%)
Lock out of house	5 (5.4%)	66 (71.0%)	14 (15.1%)	8 (8.6%)
Hit with an object	12 (13.2%)	61 (67.0%)	5 (5.5%)	13 (14.3%)
	Canadian sample			
Variable	Match (Presence)[a]	Match (Absence)[b]	Mismatch (Too little)[c]	Mismatch (Too much)[d]
Fathers' parenting				
Spank or slap	3 (6.1%)	39 (79.6%)	3 (6.1%)	4 (8.2%)
Lock out of house	3 (6.3%)	41 (85.4%)	3 (6.3%)	1 (2.1%)
Hit with an object	1 (2.1%)	45 (93.8%)	1 (2.1%)	1 (2.1%)
Mothers' parenting				
Spank or slap	5 (9.8%)	41 (80.4%)	3 (5.9%)	2 (3.9%)
Lock out of house	2 (3.8%)	45 (84.9%)	4 (7.5%)	2 (3.8%)
Hit with an object	1 (1.9%)	47 (90.4%)	2 (3.8%)	2 (3.8%)

Note. Frequencies are presented with percentages in parentheses. [a] Presence of harsh discipline behaviours for both perceived and ideal parenting, [b] Absence of harsh discipline behaviours for both perceived and ideal parenting, [c] Absence of perceived harsh discipline behaviours and presence of ideal harsh discipline behaviours, [d] Presence of perceived harsh discipline behaviours and absence of ideal harsh discipline behaviours.

The percentages of adolescents reporting the various matches and mismatches did not differ by adolescent gender, χ^2s < 3.85, *p*s > .27. Percentages of adolescents reporting the various

matches and mismatches did not differ by adolescent age for maternal spanking, paternal and maternal locking out of the house, and paternal and maternal hitting with an object, χ^2s < 5.39, *p*s > .14. Age was, however, related to matches and mismatches in paternal spanking, $\chi^2(3) = 18.14$, $p < .001$, and marginally related to matches and mismatches in maternal spanking, $\chi^2(3) = 7.35$, $p = .06$. Higher percentages of younger children (aged 8 to 11) reported matches with presence of harsh discipline behaviours and mismatches in which they experienced too much harsh discipline compared to older children (aged 12 to 15).

Chi-square tests revealed that there were cultural group differences in matches and mismatches in paternal and maternal spanking, $\chi^2(3) = 13.01$, $p = .005$, and $\chi^2(3) = 24.49$, $p < .001$, respectively. A higher percentage of Canadian adolescents (79.6%) reported matches with absence of paternal spanking compared to Chinese adolescents (49.5%); and a higher percentage of Chinese adolescents (24.2%) reported matches with presence of paternal spanking compared to Canadian adolescents (6.1%).

A similar pattern was observed for maternal spanking. A higher percentage of Canadian adolescents (80.4%) reported matches with absence of paternal spanking compared to Chinese adolescents (37.6%); and a higher percentage of Chinese adolescents (31.2%) reported matches with presence of paternal spanking compared to Canadian adolescents (9.8%).

Relations between mismatches in parental harsh discipline behaviours and adolescent outcomes. ANCOVAs were conducted to examine whether mismatches in harsh discipline behaviours were related to higher levels of depressive symptoms and lower levels of self-esteem, controlling for adolescent age and gender (hypotheses 4e, 4f). Analyses were only applied for paternal and maternal spanking in the Chinese sample due to small cell sizes in these measures in the Canadian sample, and in paternal and maternal locking out of the house and hitting with an

object in both samples. Small cell sizes result in reduced power to detect differences and larger susceptibility to violations of assumptions. In particular, cell sizes of less than 7 in ANCOVAs may be too small to produce reliable results (Wilson VanVoorhis & Morgan, 2007). For the same reason, it was not possible to evaluate whether or not there were cultural differences in the relations between mismatches in parental harsh discipline behaviours. Means of adolescent depressive symptoms and self-esteem by matches and mismatches in parental spanking are presented in Table 25.

Table 25

Means and standard deviations of depressive symptoms and self-esteem of Chinese adolescents experiencing matches and mismatches parental spanking

	Fathers' parenting			
	Match (Presence)[a]	Match (Absence)[b]	Mismatch (Too little)[c]	Mismatch (Too much)[d]
Depressive Symptoms	16.43 (12.06)	9.25 (7.06)	11.92 (7.01)	11.53 (8.62)
Self-esteem	3.03 (0.56)	3.38 (0.41)	2.86 (0.77)	3.10 (0.60)
	Mothers' parenting			
	Match (Presence)[a]	Match (Absence)[b]	Mismatch (Too little)[c]	Mismatch (Too much)[d]
Depressive Symptoms	13.90 (11.13)	9.51 (6.83)	12.75 (10.75)	11.72 (7.85)
Self-esteem	3.08 (0.56)	3.36 (0.43)	2.75 (0.73)	3.28 (0.48)

Note. Means are presented with standard deviations in parentheses. [a] Presence of harsh discipline behaviours for both perceived and ideal parenting, [b] Absence of harsh discipline behaviours for both perceived and ideal parenting, [c] Absence of perceived harsh discipline behaviours and presence of ideal harsh discipline behaviours, [d] Presence of perceived harsh discipline behaviours and absence of ideal harsh discipline behaviours.

With respect to depressive symptoms, results from ANCOVAs revealed a significant main effect of matches/mismatches in paternal spanking after adjustment for adolescent age and gender, $F(3, 88) = 3.07$, $p = .03$. Post-hoc Bonferroni tests showed that Chinese adolescents who reported matches with absence of paternal spanking had significantly lower levels of depression

than those who reported matches with presence of paternal spanking. Though not significant, adolescents who reported either types of mismatches reported higher levels of depressive symptoms than those who had matches with absence of paternal spanking but lower than those who had matches with presence of the behaviour. Thus, adolescents who had parenting *matches* that involved presence of paternal spanking showed the highest level of depressive symptoms. Adolescents who had parenting matches that involved absence of paternal spanking showed the lowest level of depressive symptoms.

Contrary to expectations, adolescent depressive symptoms did not vary significantly with matches/mismatches in maternal spanking, $F(3, 88) = 1.33$, $p = .34$.

Adolescent self-esteem varied significantly with matches/mismatches in both paternal and maternal spanking, $F(3, 86) = 3.63$, $p = .02$, and $F(3, 84) = 3.70$, $p = .02$, respectively. Post-hoc Bonferroni tests revealed that adolescents who reported matches with absence of spanking exhibited significantly higher levels of self-esteem compared to those who experienced mismatches in which they received *too little* spanking.

A summary of findings is presented in Table 26.

Table 26

Summary of findings

Hypothesis #	Support for hypothesis	Actual findings
1a, 1b	Not supported	Chinese and Canadian adolescents did not differ in ideal warmth or reasoning.
1c	Partially supported	Chinese adolescents desired more spanking and hitting with an object than Canadian adolescents. They did not differ in ideal locking out of the house.
-	Exploratory	Chinese and Canadian adolescents did not differ in ideal monitoring.
2a-c	Not supported	Second/1.5 and first generation Chinese adolescents did not differ in ideal warmth, reasoning, or harsh discipline behaviours.
-	Exploratory	Second/1.5 and first generation Chinese adolescents did not differ in ideal monitoring.
2d-f	Not supported	Length of residence was not related to ideal warmth, reasoning, or harsh discipline behaviours.
-	Exploratory	Length of residence was not related to ideal monitoring.
3a, 3c	Not supported	Canadian cultural orientation was not related to ideal warmth or harsh discipline.
3b	Supported	Canadian cultural orientation was related to higher ideal reasoning.
-	Exploratory	Canadian cultural orientation was not related to ideal monitoring.
3d	Not supported	Chinese cultural orientation was related to higher ideal warmth.
3e, 3f	Not supported	Chinese cultural orientation was not related to ideal reasoning, or harsh discipline behaviours.
-	Exploratory	Chinese cultural orientation was not related to ideal monitoring.

Hypothesis #	Support for hypothesis	Actual findings
4a	Not supported	Mismatches in parental warmth were not related to depressive symptoms.
4b	Supported	Mismatches in parental warmth were related to lower self-esteem (using interaction terms). Adolescents who desired and received high levels of warmth had the highest self-esteem.
4c, 4d	Not supported	Mismatches in parental reasoning were not related to depressive symptoms or self-esteem.
4e	Supported	Mismatches in parental monitoring were related to more depressive symptoms (using difference scores).
4f	Supported	Mismatches in parental monitoring were related to lower self-esteem (using difference scores).
4g,h	Partially supported	Matches/mismatches in parental spanking were related to adolescent outcomes in the Chinese sample. Chinese adolescents who had *matches* in which they desired and received spanking had more depressive symptoms and lower self-esteem than those who had *matches* in which they desired and received no spanking. Adolescents who had *mismatches* had levels of depressive symptoms between the two groups of adolescents with matches.
	-	Relations between mismatches in parental locking out of the house and depressive symptoms and self-esteem could not be examined with strength.
5	Not supported	Parenting mismatches were not more strongly related to adolescent outcomes in the Chinese adolescents than Canadian adolescents.

Note. “Chinese adolescents” is used as shorthand for adolescents from Chinese immigrant families.

Discussion

Using both cross-cultural and cultural approaches, I sought to clarify the mixed findings of relations between Asian immigrant parenting behaviours and youth adjustment by investigating the diversity of adolescents' parenting ideals (preferences for parental behaviours) and the associations between parenting mismatches, or misfits between ideal and perceived parenting, and youth outcomes. Parenting behaviours of warmth, reasoning, monitoring and harsh discipline and adolescent depressive symptoms and self-esteem were examined in a sample of adolescents from Chinese immigrant families and Canadian non-immigrant adolescents.

Overall, the results of this thesis suggest that there is more similarity than difference in views of parenting between adolescents from Chinese immigrant families and Canadian adolescents. Numerous pieces of evidence converged to support this conclusion. Consistent with existing literature (Crockett, Veed, & Russell, 2010; Luk, King, McCarty, Stoep, & McCauley, 2016), Chinese and Canadian adolescents interpreted parenting behaviours and dimensions in a similar fashion as evidenced by the findings from the invariance analyses. They both prefer moderate to high levels of warmth, reasoning, and monitoring, and little to no harsh discipline from their mothers and fathers, which are parenting behaviours that are most consistent with Western traditional parenting values (e.g., Baumrind, 2013; Chao, 1996; S. Y. Kim & Wong, 2002). They showed comparable levels of parenting mismatches, desiring more warmth and reasoning from their fathers and mothers and less monitoring from their mothers. Finally, they also appeared to respond to parenting in similar ways, as evidenced by the similarities in predictive relations between parenting mismatches and adjustment.

This similarity is likely due to the fact that these adolescents are socialized in the same cultural environment during formative years when they are undergoing identity formation

processes. Although adolescents from Chinese immigrant families may retain their heritage culture, most of their day to day lives are spent in the mainstream context—in schools where mainstream curricula emphasize Western values of autonomy, independence, spontaneity and creativity (Kobuta, 2001; Niemiec & Ryan, 2009). This constant exposure may increase the likelihood of endorsing these Western values and incorporating them into their views, including views of parent-child relationships, during this important developmental period.

The exception to this overall pattern of similarity between Chinese and Canadian adolescents is views of harsh discipline. Despite the low endorsement of any amount of ideal harsh discipline across samples (particularly the more severe punishment of locking children out of the house), a cultural group difference emerged. Consistent with cultural differences in traditional parenting practices, more adolescents from Chinese immigrant families than Canadian non-immigrant adolescents indicated that fathers and mothers should spank or slap and hit their children with an object (e.g., belt) as a form of discipline.

Corporal punishment appears to be one aspect of parenting that may be relatively deeply rooted in Chinese values and Confucian philosophies that shaped traditional beliefs of shaming and training (Chao, 1994; Chao, 2001; Chao & Tseng, 2002; Wu, 1981 as cited in Lieber, Fung, & Leung 2006). Shaming and training beliefs that parents should harshly discipline their children to ensure good behaviour in the future may be so deeply culturally entrenched that beliefs about harsh discipline are particularly resistant to acculturation.

Parents' cultural views of harsh discipline may be passed onto children more strongly and reliably than views of other parenting behaviours due to the transmission of shaming and training beliefs and to the relative lack of opportunity for Chinese children to observe the absence of corporal punishment in their peers' families. Due to the discouragement of and Canadian

legislation prohibiting severe corporal punishment, physical punishment that occurs in Chinese immigrant families likely occurs in private. Chinese adolescents, particularly younger ones, may have the impression that corporal punishment occurs in their Canadian peers' families too. Thus, without indications that punishment does not always have to be physical or harsh, Chinese immigrant adolescents may have no reason to think and desire otherwise, and may believe that it is necessary. For these children, harsh discipline may simply be an accepted part of life.

Although overall, there was not much evidence suggesting that cultural background drives different views of ideal parenting, there was some limited evidence that *changes* in cultural orientation may relate to changes in views of parenting among adolescents from Chinese immigrant families. Particularly, Chinese adolescents who were more strongly oriented to Canadian culture desired more reasoning from their fathers and mothers compared to those who were less strongly oriented to Canadian culture. This pattern of results suggests that Chinese adolescents' beliefs and desires about reasoning may acculturate relatively easily and quickly compared to beliefs about other parenting dimensions (i.e., harsh discipline). The endorsement of ideal reasoning may occur via social comparisons with Canadian peers and figures and themes portrayed in Western media, and through socialization in the Western educational system that encourages autonomy and independent thinking. For example, Chinese adolescents may observe reasoning in their Canadian peers' families and may have schoolteachers who grant students autonomy and seek their opinions when making decisions that affect the class. Through these interactions, Chinese adolescents may observe and come to appreciate more collaborative, versus directive, adult-child and parent-child relationships.

Surprisingly, Chinese but not Canadian orientation was positively related to ideal levels of warmth. The more strongly adolescents were oriented toward Chinese culture, the higher

levels of warmth they desired from their mothers. Chinese orientation was not significantly related to desires of fathers' warmth but the relation was in the same direction. Desires of warmth in parent-child relationships may be related to the Chinese values of interdependence and group harmony. Chao (1995) found that immigrant Chinese American mothers expressed such values in the family setting through the establishment of emotionally close and long-lasting parent-child relationships. These strong relationships may be built in part through behaviours that constitute parental warmth such as parent-child understanding and communication and the provision of instrumental support in times of trouble. Thus, adolescents who are oriented to values of interdependence and cohesion may drive desires for higher levels of these particular expressions of warmth in parent-child relationships.

Additionally, this finding may also be in part driven by links between acculturation in the behavioural domain and strong family relationships. For example, adolescents who engage with Chinese culture (e.g., reading, writing, speaking in Chinese, watching Chinese television) may do so with their parents, particularly mothers, providing more opportunities for positive parent-child bonding and communication which in turn may influence adolescents to believe that parents *should* enjoy talking things over with their children and help them in times of trouble. That is, adolescents who currently enjoy positive parent-child relationships may correspondingly believe that this is how all parent-child relationships should be and may not have reasons to believe otherwise.

Canadian and Chinese orientation were not related to ideal monitoring or harsh discipline behaviours, suggesting that views of ideal parenting on these dimensions may not be as responsive to variation in behavioural cultural orientations.

Additionally, parenting ideals did not differ based on generational status or length of residence. Unlike cultural orientation dimensions, these immigration-related factors were not related to adolescent desires of parenting. These findings support the idea that these demographic variables are weak proxy variables that merely represent groups in the population and are not nuanced enough to capture the complexities and individual differences in acculturation processes such as acculturation trajectories and endorsement of specific attitudes, beliefs, and behaviours (Matsudaira, 2006). Additionally, these proxy variables assume that acculturation occurs along one dimension and that becoming more oriented toward one culture (i.e., the host culture) equates to becoming less oriented toward another (i.e. ,the heritage culture; Koneru, Weisman de Mamani, Flynn, & Betancourt, 2007). Research on the bidimensionality of acculturation has shown that acculturation toward host and heritage cultures may occur independently of each other, forming different acculturation strategies such as integration, assimilation and separation, and that acculturation to each culture should be assessed separately (Berry, 2003; Berry, 2006; Ryder et al., 2000).

Although not main research questions, the results of this study offer a snapshot of the actual parenting practices of immigrant Chinese parents, and the relations between actual and ideal parenting and youth adjustment for adolescents across cultures. There was similarity between perceived parenting across samples. It was found that both Chinese immigrant and Canadian parents provide moderate to high levels of warmth, reasoning, and monitoring, and low levels of harsh discipline. Consistent with existing literature, this pattern of findings support the notion that as Asian immigrant families acculturate to Western host cultures, parenting may shift from a set of behaviours that are solely characteristic of heritage traditions to a set of behaviours that are a blend of heritage and host cultural traditions, with the heritage tradition of harsh

discipline shifting the least (e.g., Cheah, Leung, & Zhou, 2013; Choi, Y. S. Kim, S. Y. Kim, & Park, 2013).

For the most part, perceived parenting was a more powerful predictor of adjustment than ideal parenting. For both adolescents from Chinese immigrant families and Canadian adolescents, higher levels of warmth and reasoning from fathers and mothers were linked to better adjustment compared to ideal warmth and reasoning. This is consistent with parenting research in Western, Asian, and Asian immigrant populations that have shown that authoritative parenting behaviours that promote child autonomy and emotionally close parent-child relationships are associated with better youth outcomes such as higher levels of self-esteem, greater social competence, and fewer emotional problems and depressive symptoms (e.g., Amato & Fowler, 2002; Baumrind, 2013, S. Y. Kim & Ge, 2000; Piko & Balazs, 2012). Thus, first and foremost, actual parenting practices appear to be more strongly and directly linked to youth outcomes compared to *desired* parenting practices which may not be as relevant to youth outcomes when considered in isolation (i.e., not in the context of parenting mismatches).

Notably, however, for the parenting dimension of monitoring it was *ideal*, not perceived levels of parenting that were more strongly linked to adjustment. Levels of ideal monitoring may be tapping into adolescents' openness to talking and sharing about their life to parents, which may be related to adjustment. Adolescents who believe parents should know about their lives may volunteer this information. Indeed, adolescent self-disclosure has been linked to closer parent-child bonds and greater parent-child connectedness which are protective against maladjustment, whereas adolescent secrecy is linked to weaker parent-child relationships (e.g., Ackard, Neumark-Sztainer, Story, & Perry, 2006; Finkenauer, Engels, & Meeus, 2002; Smetana, Metzger, Gettman, & Campione-Barr, 2006).

With respect to parenting mismatches, interestingly, whereas both Chinese and Canadian adolescents desired more warmth and reasoning from their fathers and mothers and more monitoring from their fathers, they desired *less* monitoring from their mothers. This suggests that warmth and reasoning may be generally welcomed behaviours, but that over the developmental period of adolescence, there is a fine line between enough versus too much monitoring, particularly for mothers who may be traditionally more involved in parenting on a day-to-day basis than fathers.

With respect to the question of whether parenting mismatches predict immigrant adolescent adjustment, this study offers mixed findings. Analyses using interaction terms, revealed that across Chinese and Canadian samples, adolescents who reported either receiving too much or too little warmth from their fathers and mothers had lower levels of self-esteem compared to those who reported matches. When children's needs of affection and warmth are not met, children are more likely to develop negative outcomes, particularly aggression, negative worldview, emotional instability, and low self-esteem (Khaleque, 2013). Interestingly, mismatches in parental warmth were not related to depressive symptoms. This may be because parental support and involvement may be more directly related to feelings of self-worth versus depressive symptoms. For example, when there is a lack of support, such as fathers and mothers not trying to understand what their children are like or not helping or comforting them in times of trouble, adolescents may believe that they are not worthy of their parents' attention contributing to lower self-esteem. However, a lack of these supportive behaviours may not directly contribute to depression. Rather, depressive symptoms may be related to more active forms of parental rejection (e.g., E. Kim, Cain, & McCubbin, 2006).

Using difference scores, findings revealed that across Canadian and Chinese samples, adolescents who received too much monitoring from their fathers and mothers had higher levels of depressive symptoms and lower levels of self-esteem compared to those who received too little monitoring or just the right amount of monitoring. This suggests that the fit between adolescent desires of monitoring and actual amounts of parental monitoring is particularly important for adolescent adjustment. On one hand, too much monitoring may be interpreted as parents' distrust of children, or experienced as parents' suffocating distance to their children. On the other hand, too little monitoring may be interpreted as a lack of parental love and concern. Thus, monitoring may only be beneficial when it is done at moderate levels.

Contrary to expectations, mismatches in paternal and maternal reasoning were not related to adolescent depressive symptoms or self-esteem above and beyond perceived reasoning for both Chinese and Canadian adolescents. This is consistent with Wu and Chao's (2011) study that found that mismatches in the related variable of parent-child open communication were not related to internalizing or externalizing symptoms. Adolescents may perceive mismatches in parental reasoning as typical of parent-child relationships and thus may not interpret them as parents' desires for control or intentions to limit autonomy.

With respect to harsh discipline behaviours, matches and mismatches in fathers' spanking/slapping were related to depressive symptoms for adolescents in Chinese immigrant families (this relation was not examined across samples due to the small cell sizes in matches/mismatches in the Canadian sample). Paradoxically, adolescents who had *matches* in which they desired and received some amount of spanking from fathers had more depressive symptoms than those who had *matches* in which they desired and received no spanking at all from fathers. In the domain of harsh discipline, it is possible that it is the absolute level of harsh

discipline that is most strongly related to well-being. Additionally, actual levels of harsh discipline may be indirectly tapping into other adolescent behaviours that are more directly related to depressive symptoms than mismatches per se. For example, adolescents who elicit more parental harsh discipline from fathers may be youth who misbehave more and exhibit more externalizing behaviours which may be more directly linked to psychiatric processes related to youth depression versus parenting mismatches per se.

Mismatches in fathers' and mothers' spanking were related to self-esteem. Paradoxically, adolescents who had matches in which they desired and received no parental spanking had higher levels of self-esteem compared to those who reported receiving *too little* harsh discipline from both fathers and mothers. It is possible that mismatches of receiving too little harsh discipline may be tapping into a lack of parental involvement. However, these findings should not be overstated due to the low variability in reports of perceived, ideal, and mismatches in harsh discipline.

The puzzling findings may also suggest that views of harsh discipline and their relations to well-being may be more complex than initially hypothesized. For example, acts of spanking and hitting with an object may be accompanied by parents' explaining that such acts are for their own good. Thus, adolescents may have mixed feelings and reactions to these forms of discipline. On one hand they may dislike being hit, but on the other they may believe and understand that the physical punishment stems from parents' love and good intentions.

Study Limitations

The current study is limited in several ways. First, the data are cross-sectional and preclude causational and directional conclusions. Future examinations of these relations should

consider employing longitudinal designs to investigate cross-lagged relations between mismatches and outcomes while controlling for stability of outcomes over time.

Additionally, the data did not afford as much statistical power as would be ideal. The relatively small sample sizes contributed to difficulty in detecting three-way interactions, particularly in investigations of cultural group differences in the relations between parenting mismatches and adolescent outcomes. Investigations of the present hypotheses in larger samples will afford greater power to detect differences.

The data also did not allow for strong analyses of harsh discipline measures and in some cases precluded analyses altogether. This was due to the poor psychometric properties of harsh discipline, resulting in dichotomization of items. There was low variability in dichotomized perceived harsh discipline measures, and lower still in ideal harsh discipline measures, ultimately resulting in low variability in mismatches in harsh discipline. This low variability is likely due to both the low base rates of actual harsh discipline in Canada due to the discouragement of such practices (including legislation against hitting children with anything other than a bare hand), and low base rates of ideal harsh discipline (unlike the universal needs for warmth and autonomy, children do not typically have needs for harsh discipline). This low variability precluded investigation of cultural group differences in the relations between mismatches and youth outcomes. Cultural group differences may be most likely to exist in the dimension of harsh discipline compared to others (i.e., warmth, reasoning, and monitoring), as demonstrated in the cultural group differences in ideals of moderate harsh discipline behaviours (spanking and hitting with an object). Although base rates of actual harsh discipline in Chinese immigrant families may be low, it is likely that these parenting practices are still used without being reported and it is in these families that mismatches in harsh discipline may be most strongly related to

adolescent maladjustment. Thus, further exploration of both the quantitative relations between mismatches in harsh discipline and well-being, and of the nuances in qualitative interpretations of harsh discipline is warranted. Future investigations should obtain larger samples to increase variability in reports of perceived, ideal, and mismatches in harsh discipline.

Despite these limitations, the current study provided new insight about adolescent ideals and mismatches in several parenting behaviours that have not been explored before, namely parental reasoning, monitoring, and harsh discipline. It was found that adolescents from Chinese immigrant families and Canadian adolescents both desired moderate to high levels of warmth, reasoning, and monitoring from their fathers and mothers. Adolescents from Chinese immigrant families, however, desired more harsh discipline from both fathers and mothers compared to Canadian adolescents. Adolescents across samples showed comparable links between parenting mismatches and depressive symptoms and self-esteem. Parenting mismatches were related to maladjustment on the dimensions of warmth and monitoring, but not reasoning.

Directions for Future Research

Future studies may clarify the relations between acculturation and ideal parenting. The current study showed that acculturation to Canadian culture is related to desires for higher levels of parental reasoning, but not warmth (as initially hypothesized), and that acculturation to Chinese culture is related to desires of higher levels of parental warmth, but not harsh discipline (as initially expected). Qualitative investigations of adolescent views of parenting would shed light on how immigrant adolescent parenting ideals are formed, on the complexities of how parenting is interpreted, and the effects of these interpretations on well-being. Retrospective studies of young adults from immigrant families would also provide rich information on the lived experiences during adolescence and how parenting mismatches during that time may be

perceived to be related to past and current well-being. These investigations would ultimately increase our understanding of why some parenting behaviours are linked with positive outcomes in some immigrant youth and negative outcomes in others.

Future studies may also explore relations between parenting mismatches and other adjustment outcomes such as externalizing behaviours, as some parenting dimensions may be more strongly related to these outwardly directed behaviours than to internalizing symptoms. For example, mismatches in harsh discipline may be more strongly related to acts of aggression than to depressive symptoms. Exploration of these relations would contribute to a more comprehensive understanding of the differential effects of mismatches on various parenting dimensions on adjustment.

The relations between parenting mismatches and youth adjustment may also be examined at a more holistic family level. The current study provided evidence that mismatches in father and mother parenting were each independently related to maladjustment. How do adolescents compare with each other when they have mismatches with one parent versus mismatches with both parents? Are the effects additive or is there a ceiling effect? The nature of the effects should be clarified.

Finally, it should not be forgotten that families are dynamic systems that are characterized by multiple bidirectional transactions between family members (Kuczynski & De Mol, 2015; Sameroff, 2009). Adolescents who experience parenting mismatches may be moody or may rebel against parents, for example in the form of verbal aggression and disregarding family rules, which may contribute to push back from parents, worse parent-child relationship quality, and ultimately lower levels of family cohesion. Poorer family relationships may in turn compromise parents' individual well-being which has been linked to increased negative

parenting practices in both Western and Asian immigrant populations (e.g., Lovejoy, Graczyk, O'Hare, & Neuman, 2000; Su & Hynie, 2011). Increases in negative parenting may in turn increase the likelihood that adolescents will experience more and stronger parenting mismatches, therefore completing the vicious cycle. Future studies should investigate both direct and indirect bidirectional pathways that link multiple parenting and parent-child relationship variables and the well-being of adolescents, parents, and of the family unit as a whole.

Implications

The current findings have important implications for parents, immigrant and non-immigrant alike. Because Chinese and Canadian adolescents prefer similar parenting styles, immigrant and Canadian non-immigrant parents are encouraged to converse and connect with each other to facilitate Chinese parents' awareness and exposure to some of the mainstream cultural parenting styles that their children may prefer. After all, they may not be raising *Chinese* children, but *Chinese Canadian* children and some children may even say they are *Canadian* children. As shown in this study, these immigrant adolescents who are socialized in a Western society will, to some degree at least, resemble their Canadian non-immigrant counterparts in their ways of thinking, values, and philosophies. Many immigrant parents hope that their children will grow up to be successful in the host society (e.g., Guo 2013; Uttal & Han, 2011), and achieving this goal may require some compromise on the parents' part, specifically accepting children's desires for host cultural parenting styles and parenting them in ways that are more in line with host cultural traditions. Intercultural communication and observation may help parents to understand the philosophies behind Western cultural parenting practices (e.g., to foster autonomy, assertiveness, independence) and to see the benefits that children may gain from these practices. Additionally, through intercultural contact, immigrant parents may see that parenting

according to Western cultural values does not necessarily mean that they have to let go of their heritage cultural values entirely. On the contrary, more knowledge and exposure to Western culturally sanctioned parenting styles may lead parents to realize that they can create a blend of heritage and host cultural parenting that may be a good fit with their immigrant children.

Parenting mismatches are relevant for both immigrant and non-immigrant adolescent well-being. Parent education should emphasize that mothers and fathers should not only focus on parenting behaviours that are promoted to be universally beneficial for all children, but they should also seek to understand their children's unique needs and desires for parenting, particularly with respect to warmth and monitoring. For example, parents should determine their children's views of what constitutes as too much monitoring or too little warmth. This understanding can help parents in adjusting their parenting in order to create better parent-child matches, because in some cases, parenting mismatches can contribute to youth maladjustment even if the parenting technique is intended to be beneficial for adolescents. Parent-child matches increase the chances that children's adjustment will be maximized.

Finally, in a clinical setting, clinicians working with children and families in both assessments and therapy should keep in mind the possibility that child and adolescent difficulties in socioemotional and academic domains may stem in part from dynamics in family relationships. Mismatches between parent and child perspectives may be contributing to child maladjustment and family dysfunction. Clinicians are encouraged not to solely focus on parent perspectives, but to also try to understand and validate children's perspectives and to facilitate mutual parent-child understanding. For practitioners working with immigrant families, it may be beneficial to explore cultural elements that may be involved in parenting mismatches and to have each family member describe their perspectives and intentions in order to facilitate mutual

understanding. Psychoeducation and opportunities to practice effective parent-child communication and problem-solving may result in the development of strategies for families to more effectively navigate conflicts related to parent-child mismatches in parenting, and this will ultimately contribute to stronger family relationships and adolescents' well-being.

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Appendix A

Demographic Questionnaire (Adolescent)

1. Age _____
2. Date of Birth: Month_____/Day_____/Year_____
3. Where were you born? _____
4. Gender (circle one) Male Female
5. Grade level in school: _____
6. How would you describe your ethnic background? _____
7. Do you speak:

	No	**Yes**	**A little**
English	1	2	3
Mandarin	1	2	3
Cantonese	1	2	3

8. What language(s) do you speak with your **mom**? (circle one)

   a) English
   b) Chinese
   c) More Chinese than English
   d) More English than Chinese
   e) About the same amount of English and Chinese

9. What language(s) do you speak with your **dad**? (circle one)

   a) English
   b) Chinese
   c) More Chinese than English
   d) More English than Chinese
   e) About the same amount of English and Chinese

Demographic Questionnaire (Parents)

1. Age _____

2. Date of Birth: Month_____/Day_____/Year_____

3. Your marital status is… (check one)

   ☐ Married/commonlaw – married how long? _____ years

   ☐ Divorced and currently single – single how long? _____ years

   ☐ Divorced and currently remarried – remarried how long? _____ years

   ☐ Other (Please explain _____)

4. How would you describe your ethnic background? _____

5. What is the highest level of education you have completed? (check one)

   ____ Elementary (Grade 6)
   ____ Junior High (Grade 8)
   ____ High School (Grade 12)
   ____ Vocational school or college
   ____ 4-year University
   ____ Graduate/ Professional

6. Current yearly *family* income
   ____ below $10,000 ____ $10,000-$25,000 ____ $25,000-$40,000
   ____ $40,000-$50,000 ____ $50,000-$75,000 ____ $75,000-$100,000
   ____ $100,000 +

7. When did you immigrate to Canada?

   Year _____ Month_____

8. Where did you emigrate from?

   Mainland China _____ Taiwan ____ Hong Kong _____

Appendix B

Adapted Acculturation Rating Scale for Mexican Americans II

Please circle the number for each statement that best applies to you.

	1 **Not at all**	**2** **Very little or not very often**	**3** **Moder-ately**	**4** **Much or very often**	**5** **Extremely often or almost always**
1. I speak Chinese.	1	2	3	4	5
2. I speak English.	1	2	3	4	5
3. I enjoy speaking Chinese.	1	2	3	4	5
4. I associate with Caucasians (White people).	1	2	3	4	5
5. I associate with Asians or Asian Canadians.	1	2	3	4	5
6. I enjoy listening to Asian language music.	1	2	3	4	5
7. I enjoy listening to English language music.	1	2	3	4	5
8. I enjoy Asian language TV.	1	2	3	4	5
9. I enjoy English language TV.	1	2	3	4	5
10. I enjoy English language movies.	1	2	3	4	5
11. I enjoy Asian language movies.	1	2	3	4	5
12. I enjoy reading in Chinese.	1	2	3	4	5
13. I enjoy reading in English.	1	2	3	4	5
14. I write in Chinese.	1	2	3	4	5
15. I write in English.	1	2	3	4	5
16. My thinking is done in Chinese.	1	2	3	4	5

17. My thinking is done in English.	1	2	3	4	5
18. My contact with an Asian country has been…	1	2	3	4	5
19. My contact with Canadian culture has been…	1	2	3	4	5
20. My father identifies himself as “Asian” or “Chinese”	1	2	3	4	5
21. My mother identifies herself as “Asian” or “Chinese”	1	2	3	4	5
22. My family cooks Asian foods.	1	2	3	4	5
23. My friends now are of Caucasian origin (White).	1	2	3	4	5
24. My friends now are of Asian origin.	1	2	3	4	5
25. I like to identify myself as Chinese or as Asian.	1	2	3	4	5
26. I like to identify myself as a Chinese Canadian or an Asian Canadian.	1	2	3	4	5
27. I like to identify myself as a Caucasian (White).	1	2	3	4	5
28. I like to identify myself as a Canadian.	1	2	3	4	5

Appendix C

Perceived Parental Warmth Measure

Please circle the number that best indicates how your **MOM / DAD** relates to you and what kind of expectations she / he has of you.

1	2	3	4	5	6	7
Never	Almost Never	Not Often	About ½ the time	Fairly Often	Almost Always	Always

Is your mom / dad affectionate with you?	1	2	3	4	5	6	7
Do you think your mom / dad enjoys talking things over with you?	1	2	3	4	5	6	7
Do you feel like your mom / dad understands what you are really like?	1	2	3	4	5	6	7
When you have troubles, does your mom / dad comfort and help you?	1	2	3	4	5	6	7
Is your mom / dad cheerful when she / he is with you?	1	2	3	4	5	6	7
Do you feel satisfied with the relationship you have with your mom / dad?	1	2	3	4	5	6	7
Does your mom / dad smile at you?	1	2	3	4	5	6	7

Appendix D

Perceived Parental Reasoning, Harsh Discipline, and Monitoring Measures

Please circle the number that best indicates how your **MOM / DAD** relates to you and what kind of expectations she / he has of you.

1 Never	2 Almost Never	3 Not Often	4 About ½ the time	5 Fairly Often	6 Almost Always	7 Always

Parental reasoning

Can you talk to your mom / dad about what is going on in your life?	1	2	3	4	5	6	7
Does your mom / dad give you reasons for her / his decisions?	1	2	3	4	5	6	7
Does your mom / dad ask you what you think before making decisions that affect you?	1	2	3	4	5	6	7
Does your mom / dad discipline you by reasoning, explaining, or talking to you?	1	2	3	4	5	6	7

Parental harsh discipline

Does your mom / dad spank or slap you when you do something wrong?	1	2	3	4	5	6	7
When you do something wrong, does your mom / dad tell you to get out or lock you out of the house?	1	2	3	4	5	6	7
When punishing you, does your mom / dad hit you with a belt, paddle, or something else?	1	2	3	4	5	6	7

Parental monitoring

In the course of the day, how often does your mom / dad know where you are?	1	2	3	4	5	6	7
Does your mom / dad know who you are with when you are away from home?	1	2	3	4	5	6	7
Does your mom / dad know if you came home or were in bed on time?	1	2	3	4	5	6	7

Appendix E

Ideal Parental Warmth Measure

Please circle the number that indicates what **mothers / fathers** of children your age **SHOULD** expect from their children. Here, we are not asking about what your own mother / father does. We are interested in what you think mothers / fathers in general ought to do.

1	2	3	4	5	6	7
Never	Almost Never	Not Often	About ½ the time	Fairly Often	Almost Always	Always

Should a mom / dad be affectionate with her / his child?	1	2	3	4	5	6	7
Should a mom / dad enjoy taking to her / his child?	1	2	3	4	5	6	7
Should a mom / dad try to understand what her / his child is really like?	1	2	3	4	5	6	7
Should a mom / dad help her / his child when she is having troubles?	1	2	3	4	5	6	7
Should a mom / dad be cheerful when she / he is with her / his child?	1	2	3	4	5	6	7
Should a mom / dad feel satisfied with the relationship she / he has with her / his child?	1	2	3	4	5	6	7
Should a mom / dad smile at her child?	1	2	3	4	5	6	7

Appendix F

Ideal Parental Reasoning, Harsh Discipline, and Monitoring Measures

Please circle the number that indicates what **mothers / fathers** of children your age **SHOULD** expect from their children. Here, we are not asking about what your own mother / father does. We are interested in what you think mothers / fathers in general ought to do.

1 Never	2 Almost Never	3 Not Often	4 About ½ the time	5 Fairly Often	6 Almost Always	7 Always

Parental reasoning

Should a child feel comfortable telling her mom / dad about what is going on in her life?	1	2	3	4	5	6	7
Should a mom / dad give her / his reasons for her / his decisions?	1	2	3	4	5	6	7
Should a mom / dad ask her / his child what she thinks before making decisions that affect her?	1	2	3	4	5	6	7
Should a mom / dad discipline by reasoning, explaining, or talking to her / his child?	1	2	3	4	5	6	7

Parental harsh discipline

Should a mom / dad spank or slap her child when she does something wrong?	1	2	3	4	5	6	7
When a child does something wrong, should a mom / dad tell her to get out or lock her out of the house?	1	2	3	4	5	6	7
When punishing, should a mom / dad hit with a belt, paddle, or something else?	1	2	3	4	5	6	7

Parental monitoring

In the course of the day, how often should a mom / dad know where her / his child is?	1	2	3	4	5	6	7
Should a mom / dad know who her / his child is with when she is away from home?	1	2	3	4	5	6	7
Should a mom / dad know if her / his child came home or was in bed by a set time?	1	2	3	4	5	6	7

Appendix G

Rosenberg Self-Esteem Scale

How well do the following statements apply to you generally?

	Strongly Disagree	**Disagree**	**Agree**	**Strongly Agree**
I feel that I'm a person of worth, at least on an equal basis as most other people.	1	2	3	4
I feel that I have a number of good qualities.	1	2	3	4
On the whole, I am satisfied with myself.	1	2	3	4
I am able to do things as well as most other people.	1	2	3	4
I take a positive attitude toward myself.	1	2	3	4
All in all, I am inclined to feel that I'm a failure.	1	2	3	4
I feel that I do not have much to be proud of.	1	2	3	4
I wish I could have more respect for myself.	1	2	3	4
I certainly feel useless at times.	1	2	3	4
At times I think I am no good at all.	1	2	3	4

Appendix H

Center for Epidemiological Studies Depression Scale

Please circle the number for each statement which best describes how often you felt or behaved this way during the past week.

During the **past week** …

	Rarely or none of the time (<1 day)	**Some or a little of the time (1-2 days)**	**A lot of the time (3-4 days)**	**Most or all of the time (5-7 days)**
1. I was bothered by things that usually don't bother me.	0	1	2	3
2. I did not feel like eating; my appetite was poor.	0	1	2	3
3. I felt that I could not shake off the blues even with help from my family or friends.	0	1	2	3
4. I felt that I was just as good as other people.	0	1	2	3
5. I had trouble keeping my mind on what I was doing.	0	1	2	3
6. I felt depressed.	0	1	2	3
7. I felt that everything I did was an effort.	0	1	2	3
8. I felt hopeful about the future.	0	1	2	3
9. I thought my life has been a failure.	0	1	2	3
10. I felt fearful.	0	1	2	3
11. My sleep was restless.	0	1	2	3
12. I was happy.	0	1	2	3
13. I talked less than usual.	0	1	2	3
14. I felt lonely.	0	1	2	3
15. People were unfriendly.	0	1	2	3

16. I enjoyed life.	0	1	2	3
17. I had crying spells.	0	1	2	3
18. I felt sad.	0	1	2	3
19. I felt that people disliked me.	0	1	2	3
20. I could not get “going” (or motivated).	0	1	2	3